

 <b>THE NATIONAL ASSEMBLY</b> PAPERS LAID DATE: <i>Tue</i> 9 OCT 2020		 <b>OFFICE OF THE AUDITOR-GENERAL</b> <i>Enhancing Accountability</i>	
TABLED BY: <i>Leah &amp; Mary</i>	CLERK AT THE TABLE: <i>Ryan Oanda</i>		

# PERFORMANCE AUDIT REPORT ON FIRE SAFETY PREPAREDNESS IN SECONDARY SCHOOLS BY THE MINISTRY OF EDUCATION



SEPTEMBER 2020

## **VISION**

Accountability and effective management of public resources

## **MISSION**

Audit and report on the management of public resources for improved services delivery  
to the Kenyan People

## **CORE VALUES**

Objectivity

Integrity

Professional Competency

Innovation

Team Spirit

## **MOTTO**

Enhancing Accountability



## **FOREWORD BY THE AUDITOR - GENERAL**

I am pleased to present this performance audit report on Fire Safety Preparedness in Secondary Schools by the Ministry of Education. My Office carried out the audit under the mandate conferred on me by Section 36 of the Public Audit Act, 2015. The Act mandates the Office of the Auditor – General to examine the Economy, Efficiency and Effectiveness with which public money has been expended pursuant to Article 229 of the Constitution.

Performance, financial and compliance audits form the three- pillar audit assurance framework that I have established to give focus to the varied and wide scope of the audit work done by my Office. The framework is intended to provide a high level of assurance to stakeholders that public resources are not only correctly disbursed, recorded and accounted for, but that the use of the resources results in positive impacts on the lives of all Kenyans. The main goal of our performance audits is to ensure effective use of public resources and promote services delivery to Kenyans.

Our performance audits examine compliance with policies, obligations, laws, regulations and standards, and whether the resources are managed in a sustainable manner. They also examine the economy, efficiency and effectiveness with which public resources have been expended. I am hopeful that corrective action will be taken in line with our recommendations in the report.

The report will be tabled in Parliament in accordance with Article 229 (7) of the Constitution. I have as required in Section 36 (2) of the Public Audit Act, submitted the original copy of the report to Parliament. In addition, I have submitted copies of the report to the Principal Secretary, Ministry of Education, the Principal Secretary, the National Treasury and the Secretary, Presidential Delivery Unit.



Nancy Gathungu

**AUDITOR – GENERAL**

**22 September, 2020**





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## ABBREVIATIONS

BOM	- Board of Management
CCTVs	- Cross Circuit Television Systems
CDE	- County Director of Education
DFCC	- Directorate of Field Coordination and Co Curriculum
DQAS	- Directorate of Quality Assurance and Standards
DSE	- Directorate of Secondary Education
EWC	- Electricity, Water and Conservancy
G&C	- Guidance and Counselling
INTOSAI-	International Organization of Supreme Audit Institutions
ISA	- International Standards on Auditing
ISSAI	- International Standards of Supreme Audit Institutions
KESSHA-	Kenya Secondary School Heads Association
MoE	- Ministry of Education
NDMU	- National Disaster Management Unit
OAG	- Office of the Auditor-General
QASO	- Quality Assurance and Standards Officer
RMI	- Repairs Maintenance and Improvement
SDGs	- Sustainable Development Goal
SQASO	- Sub County Quality Assurance and Standards Officer



## GLOSSARY OF TERMS

**County Schools** are boarding secondary schools in the County other than National or Extra county schools, these include some Day schools in cities and major urban centers their catchment is the host County.

**Extra County Schools** are boarding schools that are second tier national centers of education excellence, complement national schools in promoting integration and benchmark education standards in their region. Their catchment is the host County and partially national.

**Evacuation map:** are simplified building diagram that guide viewers away from an imminent threat or hazardous area.

**Evacuation procedure:** is a written document which includes the action to be taken by all staff in the event of fire and the arrangements for calling the fire brigade.

**Fire assembly point:** a location designated as the place for a group to meet or for people to meet in an emergency.

**Fire blanket:** consists of a sheet of a fire retardant material which is placed over a fire in order to smother it.

**Fire extinguisher:** a portable device that discharges a jet of water, foam, gas, or other material to extinguish a fire.

**Fire extinguisher ball:** a hand held extinguisher used: on Class A (ordinary combustibles), Class B (flammable liquid) spills, Class C (energized electrical fires) which is simply thrown or rolled into a fire and it self-activates within 3 to 5 seconds.

**Hose:** a flexible pipe for conveying a liquid or gas used to put out a fire.

**Hose reel:** is a cylindrical spindle made of either metal, fiberglass, or plastic and is used for storing a hose.

**National Schools** are boarding schools which are national centers of education excellence established for the purpose of stimulating education standards and fostering national unity and social cohesion.

**Sand bucket:** a bucket filled with water or sand which is used to prevent or extinguish fires.

**Sub-County Schools** are day schools including all new boarding schools and boarding schools with day wings, they draw students solely from the host sub-county.

## EXECUTIVE SUMMARY

### Introduction

1. Fire safety preparedness is essential in schools as it reduces the probability of fire incidences and ensures that there is minimal injuries and loss of lives and property in the event of a fire. According to the Safety Standards Manual for Schools in Kenya (2008), fire safety preparedness in a school context requires the formation of a Safety Committee to handle fire safety issues among other issues. These issues include acquisition and installation of appropriate fire safety preparedness equipment and tools, construction of school buildings as per the required standards and training of the school fraternity on fire safety preparedness. In addition, schools should also have functioning guidance and counseling departments.

### Audit Objective

2. The audit sought to assess whether the Ministry of Education (MoE) has ensured that Secondary Schools in Kenya are prepared to handle fire incidences. In order to achieve this objective, the audit assessed;
  - i. Whether secondary schools had suitable physical infrastructure for fire safety preparedness;
  - ii. Whether schools have functional safety subcommittees;
  - iii. Whether guidance and counselling of students in secondary schools was functioning as intended; and
  - iv. Whether the Ministry of Education monitors and evaluates fire safety preparedness in secondary schools.

### Audit Scope

3. The audit sought to find out whether the Ministry of Education (MoE) has ensured that secondary schools are prepared to handle fire incidences and examined the MoE's fire safety preparedness activities for the period 2014/15 to 2018/2019. The audit assessed how the Directorate of Quality Assurance and Standards monitored the implementation of fire safety measures put in place by the MoE. The audit sampled 42 secondary schools from five counties as case studies based on prevalence of fire incidences between the period 2015 and 2019. The five counties are Machakos, Siaya, Uasin Gishu, Kajiado and Kiambu.

### **Summary of Audit Findings**

4. The Ministry of Education prepared and issued the Safety Standards Manual for Schools in Kenya (2008), which caters for fire safety among other safety issues in schools. This is to ensure that schools are well prepared to handle fire incidences. The Ministry is also supposed to carry out monitoring and evaluation to ensure that schools implement measures put in place for fire safety preparedness.
5. The audit revealed that implementation of fire safety measures put in place by the MoE has faced a number of challenges such as; inadequate infrastructure, limited training on fire safety preparedness, insufficient guidance and counselling in the schools. Consequently, in all the 42 schools visited, there was inadequate fire safety preparedness as described below;
  1. **Schools do not have adequate physical infrastructure to handle fire incidences**
    - a) **Some schools do not have the right equipment and tools to handle a fire incident**
6. The Schools Safety Standard Manual requires schools to have fire extinguishers, fire blankets, fire alarms and in addition post evacuation maps at every entrance and exit to buildings, classrooms, enclosed hallways, stairways and offices. Selection and distribution of fire extinguishers in the workplace, should be based on the classes of fire anticipated, size and the degree of hazard caused by a fire.
7. Physical verification in the 42 sampled schools indicated that none of the schools had posted an evacuation map on the buildings as required. The audit revealed that 40 schools had fire extinguishers distributed in their buildings with administration blocks having the highest number of serviced fire extinguishers while halls had the least. Five schools had fire blankets in the laboratory while 6 schools had them in the kitchen. Five schools had fire alarms fitted in the administration block, 6 in the dormitories, and one in the kitchen. Further, some schools had a variety of other types of firefighting equipment such as hose reels, smoke detectors, sirens, escape ladders, automatic fire extinguisher, fire balls, sand buckets and fire alarms.



8. The audit found that schools were not able to acquire all the required firefighting equipment and tools due to lack of a functional subcommittee to inform the school management on the need of prioritizing fire safety preparedness activities in schools. Further, in January 2019, the MoE directed schools not to use any monies from the maintenance and improvement vote in acquiring firefighting equipment.

**b) No fire Assembly Points in Some Schools and Inadequacies in Others**

9. The Fire Risk Reduction Rules, 2007 Section 24 (1), requires every occupier to identify a location where everyone should assemble in the event of a fire. Physical verification of the 42 sampled schools revealed that 25 had fire assembly points that were large enough to accommodate the school population. Three of these were not easily accessible as they were enclosed with barbed wire or a fence. Out of the 25 schools with fire assembly points, 5 had more than one assembly point to enable different locations to easily access an assembly area in case of an emergency.
10. The lack of, or inappropriate, fire assembly points in schools was as a result of the schools' management not being sensitized on the identification and design of fire assembly points. Lack of a functional fire assembly point is likely to lead to confusion on where to assemble in the event of a fire and some students and staff might end up being trapped in buildings resulting to loss of lives or serious injuries.

**c) Schools were not Constructed in Accordance with the Required Safety Standards to Ensure Easy Escape in the Event of a Fire Incident**

11. Section 6.2 of the manual for schools in Kenya requires that in every classroom and dormitory, the doorways should be opening outwards. Physical verification revealed that 22 out of the 42 sampled schools had their doors opening inwards in the classrooms. Five out of the 40 sampled schools had doors opening inwards in the dormitory. In the event of fire, students are likely to lock themselves from the inside of the buildings as they struggle to get out, given the population in the schools.
12. Physical verification revealed that some schools had windows with reinforced metal grills contrary to regulations. In addition, some schools did not have doors at each end of the dormitory or clearly labelled emergency exits at the middle with doorways

of the recommended 5 feet wide, for ease of escape in the event of a fire. This is likely to hinder evacuation in the event of fire leading to injuries and loss of lives.

**d) Congestion in Schools Hindering Easy Exit in the event of a Fire Incidence**

13. The Ministry issues schools with registration certificates indicating the maximum number of students that each institution should have. The audit showed that 30 out of the 40 schools visited exceeded the number stated in the registration certificate with the highest school having an excess of 519 students. In addition, 29 of the sampled schools had classes with more than 45 students contrary to regulations.
14. The Ministry emphasizes that beds should either be single or double-decker and the spacing between the beds should be at least 1.2 meters with the pathway space of not less than 2 meters. The audit revealed that 6 schools had triple decker beds while 34 boarding schools had double decker beds without the required spacing. Most of the dormitories were congested which was attributed to the government introducing 100% transition of students from the year 2017. Schools are therefore congested and this increases the risk of loss of lives in the event of a fire.

**II. Although the Regulations Require Schools to have Functional Safety Sub-Committee and Training of School Community, this has not Happened in Many Schools**

**a) Schools do not have a Functional Safety Sub-Committee to deal with Fire Safety Preparedness**

15. Interviews with the management of the 42 sampled schools revealed that none of the schools had a safety sub-committee with the required composition. 71% of the schools did not have a safety sub-committee in charge of fire safety while 29% had safety committees composed mainly of teachers. Lack or inadequate composition of a safety subcommittee was attributed to limited follow up by MoE on the need of safety committees. Lack or inadequate composition of a safety subcommittee could lead to schools not being well prepared to handle fire incidences.

**b) Most schools do not co-ordinate with County Fire Officers to Acquire Comprehensive Training on Fire Safety Preparedness**

16. The Safety Manual for Schools in Kenya, requires that schools' management should invite the County fire officers to give talks and demonstrations to learners on fire safety preparedness and take them through fire drills at least twice every term.



17. Interviews conducted with the schools' management of the 42 sampled schools revealed that only two schools had invited the local fire office to give talks and demonstrations on fire safety preparedness. This was attributed to lack of awareness by schools on the role of the County Fire Office in fire safety preparedness. Consequently, schools were not ready to combat fire incidences as they lacked comprehensive training in fire safety preparedness.

**III. Guidance and Counselling in Schools is not working as Intended**

18. Review of MoE fire incidence reports indicated that most of the fires in schools are as a result of indiscipline cases. All schools are therefore required to provide guidance and counseling services to students as an essential corrective measure focusing on moral values and character formation of the learners. In addition, schools are required to strengthen guidance and counselling at the school level.
19. The audit noted that the MoE had established a guidance and counselling department at the Ministry Headquarters. However, the department had two staff only, making it difficult for them to ensure that guidance and counselling was carried out effectively in schools. Interviews with schools' management revealed that all 42 sampled schools had a guidance and counselling department. However, the MoE has not provided the Board of Management with policy guidelines and regulations on how to implement guidance and counselling. The departments were therefore not well constituted and capacitated and therefore had minimal impact in reducing indiscipline cases in schools as described in the following paragraphs.

**a) Schools did not have Trained Guidance and Counselling Teachers to deal with Indiscipline Cases likely to result into Fire Incidences**

20. The Basic Education Act, 2015 requires that the persons offering counselling should be duly qualified counsellors under the appropriate law. The Counsellors and Psychologists Act, 2014, requires that counsellors should have a minimum of a Bachelor's degree in counselling or psychology to be licensed to practice.
21. Out of the sampled 42 schools, 31 did not have qualified teachers offering guidance and counselling. 85% of the sampled schools were building capacity of their teachers by taking them for short term courses in guidance and counselling. In



addition, the number of counsellor teachers in schools was low compared to the student population. This reduced the effectiveness of guidance and counselling yet it is the main recommended discipline tool in schools.

**b) Some schools lack secluded guidance and counselling rooms and lockable cabinets**

22. For effective guidance and counselling in schools, the schools are required to have a secluded room and lockable cabinets for confidentiality of information. Physical verification revealed that out of the 42 schools visited, 25 had secluded rooms in an appropriate quiet location while 24 had lockable cabinets or desks in the counselling rooms to allow for confidentiality. Students avoided visiting the guidance and counselling teachers in schools that did not have a secluded guidance and counselling rooms, thus rendering the department ineffective.

**IV. Inadequate Monitoring and Evaluation of Fire Safety Preparedness in Schools**

23. Section 7.0 of the Safety Manual requires that school safety assessment which includes fire safety preparedness, be monitored by the Quality Assurance and Standards Officers (QASO's) as part of their routine advisory visits to schools. QASO are supposed to assess schools at least once in every two years and to follow up on implementation of their recommendations within three to six months after issuing an assessment report. Interviews and documentary review revealed that at least half of the schools visited had been assessed at least twice in the last five years. Inadequate assessment on fire safety preparedness was attributed to; shortage of staff at various sub counties' offices, many schools in need of assessments, QASOs having inadequate resources for assessment of schools and failure by QASOs to use a comprehensive quality index tool.

**Conclusions**

24. Secondary schools in Kenya are expected to implement the requirements of the Safety Standards Manual for Schools in Kenya, 2008 and instructions issued by the Ministry of Education to ensure that schools are prepared to handle fire incidences. Despite the Ministry having developed measures to ensure fire safety in schools,

secondary schools were not adequately prepared to handle fire incidences. The audit found that;

25. Most of the schools had a copy of the school's safety standards manual. However, they were not familiar with what was required of them in terms of fire safety preparedness. This was attributed to laxity in the implementation of the safety standards manual and minimal supervision by the Ministry. The schools did not have functional safety sub committees to help in identification of fire safety preparedness needs and oversee implementation of fire safety preparedness activities. The matter is further compounded by the fact that they were also not engaging their respective local fire station offices for training on fire safety preparedness activities leaving them ill prepared to handle fire incidences.
26. Most school fires are attributed to indiscipline issues and the Ministry has identified guidance and counselling as a key area with regard to management of discipline in secondary schools. However, guidance and counselling was not working as intended as the Ministry had not set a functional guidance and counselling system at the headquarters, the county levels and schools. Consequently, most schools were not offering the services in an effective manner.
27. Although the Quality Assurance and Standards department is mandated to monitor and evaluate safety in secondary schools, their impact on fire safety preparedness was low due to low staffing levels, inadequate resources for logistics and lack of a comprehensive checklist on fire safety preparedness.

### **Recommendations**

28. In view of the findings and conclusions of the audit, the Auditor- General has proposed the following recommendations for implementation by the Ministry of Education to ensure that schools are prepared to handle fire incidences.
29. To ensure that schools have adequate physical infrastructure to handle fire incidences, the Ministry of Education should;

- i. Identify and recommend for use in schools, critical basic firefighting equipment and facilities that may be the most essential while keeping in mind the cost and efficiency constraints;
  - ii. Ensure that buildings that are constructed meet safety requirements;
  - iii. Ensure that buildings already constructed are renovated and remodeled to meet safety requirements;
  - iv. Rationalize the status of classrooms and dormitories with a view of seeking opportunities for expansion in response to the increased admissions.
- 30. To ensure that schools have functional safety subcommittee and training of school fraternity on safety preparedness, the Ministry should;
  - i. Follow up on the implementation of the safety manual to ensure that schools set up functional safety subcommittees;
  - ii. Develop a framework for engagement between secondary schools and county fire officers;
  - iii. Encourage liaison between secondary schools and the county fire offices to enable the training of the school fraternity on fire safety.
- 31. To ensure that guidance and counselling in schools is working as intended, the Ministry of Education should;
  - i. Strengthen the guidance and counselling unit at the headquarters so that it is functional;
  - ii. Strengthen guidance and counselling in schools by offering regular training to the teachers who offer the services.
- 32. To ensure that there is adequate monitoring and evaluation on fire safety preparedness in schools by QASOs, the Ministry should;
  - i. Rationalize deployment of QASOs at the Sub-Counties to ensure enough numbers to conduct timely monitoring and evaluation on fire safety preparedness in schools;
  - ii. Strengthen the logistical support for QASOs to make them more effective;
  - iii. Mainstream fire safety preparedness by incorporating it in the QASO Quality Assessment Index tool.



## CHAPTER ONE

### BACKGROUND OF THE AUDIT

#### Introduction

- 1.1. The Ministry of Education is responsible for education policy management, management of education standards, quality assurance in education and primary and secondary education institutions management.
- 1.2. Fire safety preparedness is essential in schools as it reduces the probability of fire incidences and ensures that there is minimal injuries and loss of lives and property in the event of a fire. According to the Safety Standards Manual for Schools in Kenya (2008), fire safety preparedness in a school context requires the formation of a safety committee to handle safety issues among others. These issues include acquisition and installation of appropriate fire safety preparedness equipment and tools, construction of school buildings per the required standards and training of the school fraternity on fire safety preparedness. In addition, the schools should also have functioning guidance and counseling departments.
- 1.3. According to a report published by the National Disaster Management Unit (NDMU) in 2014, fire in schools may be caused by either natural or human elements. Human negligence is attributed to cause 90% of all fires. On the other hand, natural factors for example climatic conditions like lightning, contribute to approximately 10% of fires. Human elements, being the major cause of fires, is an indicator that fire tragedies to a large extent are preventable.
- 1.4. Fire incidences pose a serious threat to the education system and the nation at large. They result to destruction of property, loss of learning time and psychological effects to staff and students. All these translate to low achievement in learning outcomes hence affecting the quality of education provided. It is therefore necessary to determine measures to prevent and reduce the number and impact of fire incidences in schools.

## Motivation for the Audit

- 1.5. The Auditor-General authorized the audit after considering the following factors;
- i. A report on rapid assessment of arson in Secondary Schools, 2016, indicated that 130 schools had reported fire incidences between the months of May and August 2016. One of the recommendations in the report was the establishment of functional guidance and counselling departments in schools. Two and a half years later, the country was still experiencing cases of fire incidences in secondary schools. Therefore, an audit was necessary to find out whether the recommendations had been implemented in secondary schools.
  - ii. According to a report on schools' unrest by the Ministry of Education dated 31 July, 2018, a high number of arson cases were reported in secondary schools between the months of January to July 2018. The report indicates that there were 107 unrest cases reported in 2018, out of which 63(59%) were arson cases, 23 (21%) walk outs, 14 (13%) breakages, and 8 (7%) sit ins. The breakdown of the 63 reported arson cases in 2018 in various regions in the country is as follows; One school in Central region, four in the Coastal region, 22 in Eastern region, two in Nairobi region, 17 in Nyanza region, 12 in Rift Valley region and four in Western region. Since seven out of the eight regions had reported fire incidences leading to serious injuries, loss of lives and property, it crucial that a performance audit be conducted to determine the level of fire safety preparedness in secondary schools.
  - iii. There has been a public outcry on arson in secondary schools where students were injured, some lost their lives and property worth millions was destroyed. According to the Standard digital publication dated 22 July, 2018, Highway Secondary School in Nairobi Region was closed down indefinitely after suspected arsonists set the dormitories ablaze in the wee hours of the morning injuring 31 students and one worker. On 13 July, 2018, Mokowe Secondary school dormitory in Lamu was set on fire destroying

property worth Ksh. 7.5 million. According to the Daily Nation newspaper publication dated 4 September, 2017, a fire incident that occurred at Moi Girls Secondary School in Nairobi on 2 September, 2017 left 51 students injured, 11 admitted with 3 of them having serious injuries while 8 students lost their lives in the fire. Therefore, there was need to conduct an audit to find out the level of fire safety preparedness in secondary schools.

- iv. The Sustainable Development Goal 4 (SDG 4) requires governments to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. The many fire incidences in Secondary Schools in the country pose a risk of the country not fully promoting lifelong opportunities for all. This is especially evident where lives have been lost in fire incidences and also loss of learning time when students are sent home after their dormitories and other facilities have been destroyed by fire. An audit was therefore necessary to assess schools’ preparedness to handle fire incidences and make recommendations to minimize loss of lives and damage to property from fire incidences and reduce wastage of learning time when students are sent home after such incidences. This will eventually contribute towards achievement of SDG 4.



## CHAPTER TWO

### DESIGN OF THE AUDIT

#### Audit Objective

- 2.1. The audit sought to assess whether the Ministry of Education has ensured that Secondary Schools in Kenya are prepared to handle fire incidences.
- 2.2. In order to achieve this objective, the audit assessed;
  - i. Whether secondary schools had suitable physical infrastructure for fire safety preparedness;
  - ii. Whether schools have functional safety subcommittees;
  - iii. Whether guidance and counselling of students in secondary schools was functioning as intended; and
  - iv. Whether the Ministry of Education monitors and evaluates fire safety preparedness in secondary schools

#### Audit Scope

- 2.3. The audit sought to find out whether MoE has ensured that secondary schools are prepared to handle fire incidences. The audit examined the activities of MoE in relation to fire safety preparedness for the period 2014/15 to 2018/2019. The audit also assessed how the Directorate of Quality Assurance & Standards monitored the implementation of fire safety measures put in place by MoE.
- 2.4. The audit examined the level of fire safety preparedness in secondary schools by sampling 42 secondary schools selected from five counties which were selected as case studies based on prevalence of fire incidences. The list of the schools visited is provided in [Annexure 1](#). The schools were selected using the criteria below;
  - i. **Gender Balance:** Equity in gender where out of 42 schools; 20 were girls' schools, 18 were boys' schools and 4 were mixed schools.

- ii. **Prevalence of fire incidences:** The team sampled schools in counties which had the highest and lowest prevalence of fire incidences in secondary schools between the years 2015 and 2019. The counties with the highest prevalence were Machakos, Siaya and Uasin Gishu while the ones which had a low number of fire incidences during the same period were Kiambu and Kajiado.

2.5. Due to incomplete data availed by some schools, the audit only analyzed and presented the available and complete data. As a result, some of the findings are based on data from a varying number of schools.

### **Audit Questions**

2.6. The Key Audit Question was; Has the Ministry of Education ensured that Secondary Schools in Kenya are prepared to handle fire incidences?

2.7. The audit sub- questions were;

- i. What physical infrastructure has been put in place to ensure fire safety preparedness in secondary schools?
- ii. Do schools have functional safety subcommittees?
- iii. Was guidance and counselling of students in secondary schools functioning as intended?
- iv. Does the Ministry of Education monitor and evaluate fire safety preparedness in secondary schools?

### **Assessment Criteria**

2.8. The audit assessed fire safety preparedness in secondary schools against criteria drawn from the Basic Education Act, 2013, Basic Education Regulations, 2015, Safety Standards Manual, 2008, Fire Risk Reduction Rules 2007 and best practice with regards to fire safety preparedness. Details of the audit criteria applied are provided in [Annexure 2](#).

## Methodology of the Audit

- 2.9. The audit was conducted in accordance with performance auditing guidelines issued by the International Organization of Supreme Audit Institutions (INTOSAI) and audit policies and procedures established by the Office of the Auditor-General (OAG). The guidelines and policies fulfil the requirements of the International Standards on Auditing for Supreme Audit Institutions.
- 2.10. To understand the operations of the Directorate of Secondary Education and the Directorate of Quality Assurance & Standards as regard fire safety preparedness in secondary schools, the following documents were reviewed; The Ministry of Education Strategic Plan 2013 – 2017, Basic Education Act, 2013, Basic Education Regulations, 2015, Safety Standards Manual for Schools, 2008, Fire Reduction Rules, 2007, fire incidence reports and Quality Assurance and Standards Officers' (QASOs) assessment reports. The list of documents reviewed and reasons for their review is provided in [Annexure 3](#).
- 2.11. To understand the various functions and operations of MoE, Directorate of Secondary & Tertiary Education, Directorate of Quality Assurance & Standards and Secondary Schools with regard to fire safety preparedness in Secondary Schools, five County Quality Assurance and Standards Officers, one county fire officer and school management or safety sub-committee members for all the sampled schools were interviewed. Physical verification of school buildings, firefighting equipment, fire assembly points and evacuation maps was also done. More information on those interviewed is provided in [Annexure 4](#).
- 2.12. The team developed audit evidence by analyzing the collected qualitative and quantitative data from various sources. The data was analyzed by using descriptive statistical analysis such as summary statistics, tables and figures. Information from different types of data sources was combined to gain an understanding of causes of actual conditions in the sampled schools.



## CHAPTER THREE

### DESCRIPTION OF THE AUDIT AREA

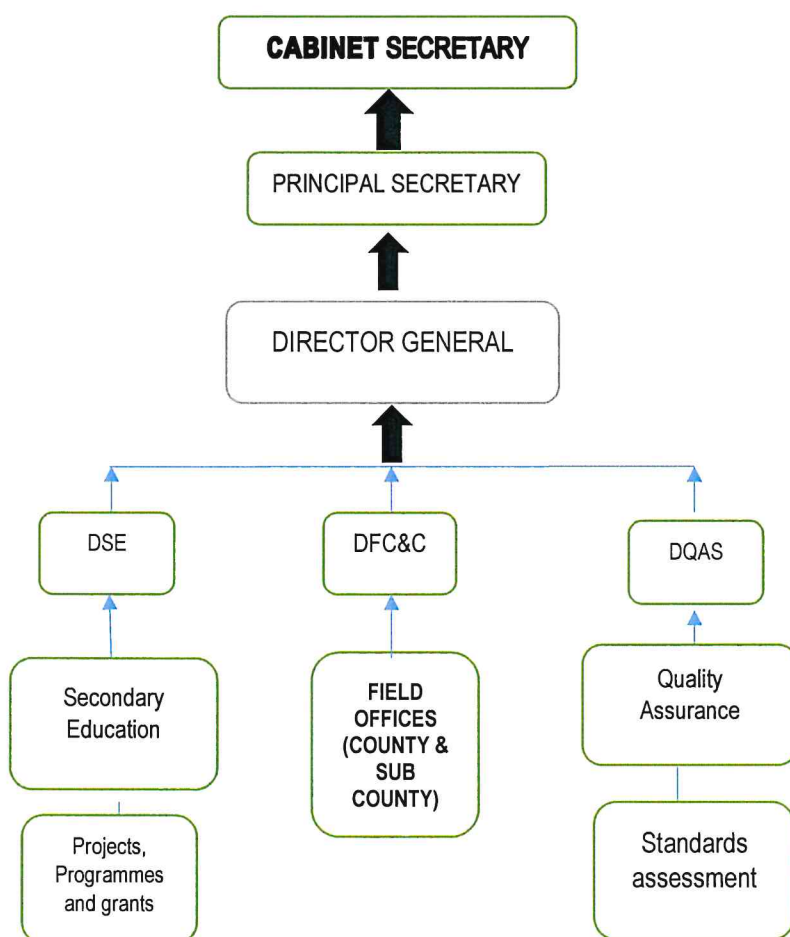
#### Statutory Mandate for the Provision of Fire Safety in Secondary Schools

- 3.1 The Ministry of Education derives its mandate from Executive Order No. 2/2013 on the organization of the government of the Republic of Kenya. According to the order, the Ministry is responsible for the education policy management, management of education standards, quality assurance in education and management of primary and secondary education institutions among others.
- 3.2 The Ministry's vision is to be a globally competitive education, training, research and innovation system for sustainable development. Its mission is to provide, promote and coordinate quality education, training and research and enhance integration of science and technology and innovation into national production systems for sustainable development.
- 3.3 In order to ensure safety in secondary schools, the Ministry published the Safety Standards Manual for Schools in Kenya in 2008. The manual describes the structures, processes, activities, guidelines and procedures relating to safety within the school environment. It also clarifies responsibilities in the management of safety in schools. All schools were required to implement the Safety Manual.
- 3.4 According to a Ministry of Education report dated 31 July 2018, on the enquiry into the wave of students' unrest in secondary schools indicated that in 2018, there were 8,900 public secondary schools in which are categorized into national, extra county, county and sub-county schools. Most national, extra-county and county schools are boarding schools while sub-county schools are day schools. Generally, secondary schools in Kenya cater for the education of adolescents of between 13 and 19 years' age group.

## Organization Structure of the Ministry of Education

3.5 At the national level, the Ministry of Education is headed by the Cabinet Secretary for Education who is assisted by the Principal Secretary. The Director General who reports to the Principal Secretary heads the Directorate of Secondary Education (DSE), Directorate of Field Coordination and Co-Curricular (DFC&C) and Directorate of Quality Assurance & Standards (DQA & S). The detailed organogram is illustrated in **Figure 1**.

Figure 1: Organization Structure of the Ministry of Education for Fire Safety Preparedness



3.6 The Directorate of Secondary Education (DSE) and the Directorate of Quality Assurance and Standards (DQAS) deal with fire safety preparedness in secondary schools. The DSE is mandated with the co-ordination and management of programs and activities in secondary schools. Its specific functions are; policy formulation and implementation, handling of students' discipline cases, management of Boards of Management, school projects and school grants. Grants issued by DSE assist in the purchase of firefighting equipment, construction of school buildings that should comply with fire safety standards, training of the school fraternity on fire safety preparedness, basic training on guidance and counselling of teachers, amongst other school activities. The Directorate of Quality Assurance and Standards is responsible for quality assurance and standards assessment in education and training institutions.

#### **Organization at the County Level**

3.7 At the County level, the activities of the Ministry of Education under the Director General are carried out by the Office of the County Director of Education (CDE). According to section 54 of the Basic Education Act, 2013, the County Director of Education (CDE) shall be the Secretary to the County Education Board. The CDE is the holder of the authority to incur expenditure of the education account in the County which includes the Quality Assurance and Standards expenditures in carrying out monitoring and evaluation of fire safety preparedness in secondary schools. The CDE co-ordinates and supervises education officers at the county level including the Quality Assurance and Standards Officers.

3.8 In addition, the CDE assists in initiation and implementation of education policies which includes the safety standards manual and circulars that touch on fire safety preparedness. The CDE advises the County Education Board on selection and appointment of Boards of Management (BOMs) and ensures discipline of students. Further, the CDE also oversees the proper



management and maintenance of school buildings, property and infrastructure development.

3.9 The Quality Assurance and Standards Officers (QASOs) who operate under the CDE at the County level are required to monitor school safety, which includes fire safety preparedness as part of their advisory visits and assessment in schools. The assessments are required to be done every two years depending on the needs and issues arising in each school.

3.10 The QASOs visit schools to inspect and carry out assessment on safety which includes fire safety preparedness. Once this has been done, a report is written with relevant recommendations for schools to implement. Copies of the assessment reports are supposed to be shared with the schools and the County Education Office among other key stakeholders. After three to six months the quality assurance and standards officers are expected to carry out a follow up assessment to establish whether the recommendations given were implemented.

#### **Organization at the School Level**

3.11 At the school level, matters of fire safety preparedness are handled by the School Board of Management and the Safety Sub-Committee. The Safety Standards Manual states that each School Management Committee or Board of Governors shall constitute a sub-committee to deal with school safety. In addition to that, the Basic Education Act, No. 14 states that the functions of the BOM are to facilitate and ensure the provision of guidance and counselling to all learners.

3.12 The Safety Standards manual further states that schools should have a safety sub –committee to deal with safety issues which among others include fire safety preparedness. The committee comprises of the Chair of the School Management Committee or Board of Governors who should be

the Chairman of Committee, School Principal, the Deputy Principal, teacher in charge of school safety, guidance and counselling teacher, a teacher's union representative in the school, a representative of the Crisis Response Team and two other members of the School Management Committee.

- 3.13 The specific functions of this committee include identification of the school safety needs, mobilization of resources to ensure safety in schools, monitoring and evaluation and evaluating various aspects of school safety with a view of enhancing school safety. The committee is also supposed to form sustainable networks with all stakeholders, keep them informed about safety policies and implementation of activities and seek their support and participation in all activities relating to safety in the school.

### **Key Players in Fire Safety Preparedness in Secondary Schools**

- 3.14 Fire Safety preparedness in secondary schools involves a number of other actors as discussed below:

#### **a) State Department of Public Works**

- 3.15 The State Department of Public Works conducts supervision during construction of school buildings. For fire safety preparedness, the department ensures that the school buildings are built according to the required fire safety standards.

#### **b) The County Fire Office**

- 3.16 The County fire office is responsible for conducting fire drills and training schools on fire safety preparedness. The Ministry of Education, through the Safety Standards Manual, 2008 requires schools to coordinate with the County fire office in their respective Counties to receive this training. In the event of fire, the County fire office assists schools to put out the fire, compile a report on the cause of the fire incidence and give

recommendations on how the school can improve their level of fire safety preparedness. The County fire office also conducts annual fire audits and issues fire safety compliance certificates to schools that have complied with fire safety standards.

#### **c) The Kenya Police**

- 3.17 The function of the police in fire safety preparedness in secondary schools is to investigate attempted and actual fire incidences, apprehension of offenders who are suspected to have caused fire, write investigative reports and patrol schools to increase surveillance during periods of rampant fire incidences.

#### **d) Firefighting Equipment Service Providers**

- 3.18 They advise schools on the appropriate type of firefighting equipment, they then supply and install the equipment in strategic points in the school. They also demonstrate to the school fraternity how to use the equipment. The service providers also periodically service firefighting equipment at a cost.

### **Process Description of Fire Safety Preparedness in Secondary Schools**

- 3.19 According to the International Standards of Supreme Audit Institutions (ISSAIs) 5510, on the audit of disaster risk reduction, published by the International Organisation of Supreme Audit Institutions (INTOSAI), preparedness activities fall under the pre-disaster phase of the disaster management cycle and comprise of mitigation and prevention. Prevention is the outright avoidance of adverse impacts of hazards and related disasters. It also includes measures intended to ensure a permanent protection against a disaster. Mitigation is the lessening or limitation of the adverse impacts of hazards and related disasters.



3.20 In Kenya, the National Disaster Management Unit (NDMU), in its Basic Incident Management Manual of 2014, states that disaster preparedness focuses on prevention and mitigation. According to the manual, preparedness activities include training, sensitization exercises, simulations, drills, emergency response plans, warning systems, evacuation plans and emergency communications.

3.21 Based on ISSAI 5510, the NDMU's manual and analysis of documents from the Ministry of Education, fire safety preparedness in secondary schools basically involves the activities described below.

**a) Physical Infrastructure that adhere to Fire Safety Requirements**

3.22 When schools are constructing new buildings or renovating old ones, the State Department of Public Works assists the schools in drawing and approval of building plans, formulation of Bill of Quantities and supervision from start to end. This is to ensure that school buildings are built according to the required fire safety standards among other construction standards. The Ministry facilitates schools with funds for maintenance of school buildings through the repairs, maintenance and installation and the building equipment and stores vote heads.

**b) Needs Assessment on Fire Safety**

3.23 According to the schools' safety manual, the safety sub-committee is expected to identify the required type and number of firefighting equipment, identify training gaps and plan on who and when to conduct fire safety talks; demonstrations and drills. In addition, the committee is expected to identify the location of fire assembly points and where to place the evacuation maps.

3.24 The school administration is expected to identify the workshops that Guidance and Counselling teachers should attend.

### **c) Mobilization of Resources**

3.25 The school safety sub-committee is required to source for funds to ensure implementation of the needs identified above. The Committee is also responsible for sourcing funds to implement fire safety recommendations from inspections conducted by Quality Assurance and Standards Officers.

### **d) Conducting Fire Safety Preparedness Activities**

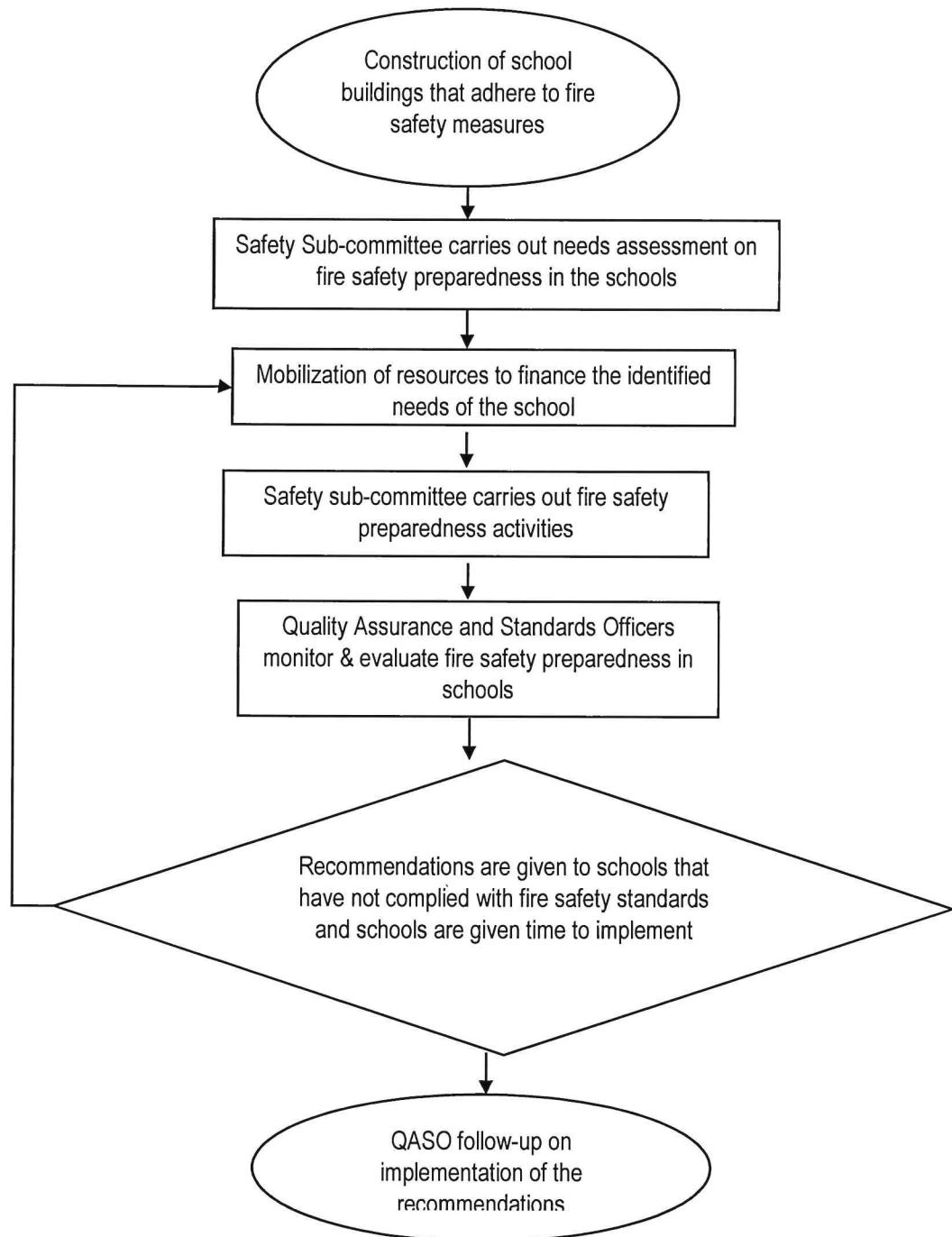
3.26 Schools should then implement fire safety preparedness activities from the identified safety needs. These activities include;

- i. Procurement and servicing firefighting equipment which include fire extinguishers, fire blankets, hose reels, fire balls, sand buckets and warning systems (fire sirens, fire alarms, smoke detectors);
- ii. Putting up signage to give direction of the fire assembly point;
- iii. Displaying evacuation maps at the entrance and exit of school buildings;
- iv. Labelling of fire exits;
- v. Liaising with the County Fire Office to offer comprehensive training and sensitization of the school fraternity on fire safety preparedness.

### **e) Monitoring and Evaluation of Fire Safety Preparedness in Secondary Schools**

3.27 The Quality Assurance and Standards Officers (QASOs) are required to visit secondary schools at least once every two years to carry out assessments with an aim of ensuring that schools comply with fire safety requirements. QASOs are expected to check whether schools comply with fire safety measures. The officers then compile assessment reports and give recommendations on the areas to be improved. QASOs are also required to follow up on implementation of their recommendations within three to six months after issuing an assessment report. A flow chart of the process of fire safety preparedness is provided in **Figure 2**.

Figure 2: Process Description





## Sources of Funding

3.28 There is no specific vote head allocated for fire safety preparedness in secondary schools. The schools use savings from other vote heads to carry out fire safety activities. The savings are most commonly sourced from the following vote heads; Repairs, Maintenance and Improvement (RMI), Electricity, Water and Conservancy (EWC), Administration costs and local transport and travel vote heads. The amounts allocated per student for these vote heads depends on the category of the school, that is, either category A or B. Schools in category A are national schools and extra county schools in Nairobi, Mombasa, Nakuru, Kisumu and Eldoret while those in category B are boarding schools and extra-county schools in other areas. The fees to be charged by schools in category A and B and the various vote heads where savings are sourced to cater for fire safety activities are illustrated in **Table 1**.

Table 1: Sources of funds for firesafety preparedness activities

<b>Vote Heads</b>	<b>Amount in Ksh. (Category A)</b>	<b>Amount in Ksh. (Category B)</b>
Repairs, Maintenance and Improvement	<b>4, 846</b>	<b>4, 286</b>
Local Travel and Transport	<b>3, 454</b>	<b>2, 483</b>
Administration costs	<b>5,088</b>	<b>3, 422</b>
Electricity, Water and Conservancy (EWC)	<b>9, 453</b>	<b>8, 051</b>

Source: OAG-K Analysis of secondary schools' fees structure

## CHAPTER FOUR

### FINDINGS OF THE AUDIT

- 4.1 The Ministry of Education (MoE) prepared and issued the Safety Standards Manual for Schools in Kenya (2008), which caters for fire safety among other safety issues in schools. This is to ensure that schools are well prepared to handle fire incidences. In addition, MoE is supposed to carry out monitoring and evaluation to ensure that schools implement the measures put in place for fire safety preparedness.
- 4.2 Although the Ministry has put in place policy measures, regulations and monitoring systems for fire safety preparedness, our audit findings indicate that the implementation has faced a number of challenges which include; inadequate infrastructure, limited training on fire safety preparedness and insufficient guidance and counselling in the schools. Consequently, in all the 42 schools visited, there was inadequate fire safety preparedness as described below;
- I. Schools do not have adequate physical infrastructure to handle fire incidences**
    - a) Some schools do not have the right equipment and tools to handle a fire incident**
- 4.3 The Schools Safety Standard Manual requires schools to have fire extinguishers, fire blankets and fire alarms. In addition, schools are expected to post evacuation maps at every entrance and exit to buildings, classrooms, enclosed hallways, stairways and offices. Further, Fire Risk Reduction Rules section 30 & 31(1) require the servicing of firefighting equipment be done by a competent person at least once in 12 months. In selecting and distributing fire extinguishers in the workplace, the distribution and selection should be based on the classes of fire anticipated, size and the degree of hazard expected to be caused by a fire.

- 4.4 Physical verification in the 42 sampled schools indicated that none of the schools had posted an evacuation map on the buildings as required. The audit found that 40 schools had fire extinguishers distributed in their buildings with administration blocks having the highest number of serviced fire extinguishers and halls having the least. The schools did not have the right number and type of firefighting equipment as shown in the **Table 2** below.

Table 2: Distribution of firefighting equipment in schools

Buildings in the schools		Administ- ration block	Classes	Laboratory	Library	Dormitory	Kitchen	Halls
Type of equipment & tools								
Fire extinguishers	Available	40	17	36	22	30	38	15
	Serviced	25	15	21	15	11	23	11
Fire blankets		0	0	5	0	0	6	0
Fire alarms		5	0	0	0	6	1	0

Source: OAG analysis of on distribution of fire fighting equipment and tools in the schools buildings

- 4.5 In addition, schools had a variety of other types of firefighting equipment as illustrated on [Annexure 5](#). Other equipment found in different schools were hose reels, smoke detectors, sirens, escape ladders, automatic fire extinguishers, fire bells, sand buckets, fire alarms and fire balls. A number of schools had also installed Closed Circuit Television Systems (CCTVs) while others had drilled boreholes to ensure constant supply of water.
- 4.6 At Maliera Secondary School in Siaya County for example, it was noted that the school had invested well in fire safety preparedness. In terms of equipment and tools, the school had serviced fire extinguishers that were strategically placed in every block, sand buckets outside one classroom block and hose reels outside the dining hall and dormitories. In addition, the school had a fire extinguisher ball, a fire blanket in the kitchen and fire action plans displayed at exits of buildings. The school also had a fire assembly point that was clearly marked and was large enough to accommodate the school population.



- 4.7 The water supply was adequate in that there was a borehole with backup water tanks and plenty of water points. In order to enhance the pressure of water from the hose reels, the water tanks were raised above the ground. CCTV cameras were also installed in order to prevent arson. To enable proper operation of the CCTV cameras at night, floodlights were installed at strategic points within the school compound to provide sufficient lighting.
- 4.8 St. John Tala High School also had very good water supply and CCTV system. The school had also invested in a generator to provide back up in the event of a power outage to ensure uninterrupted water supply and lighting. At the same time, there was an active boy scout's movement that trained other students on matters of safety and first aid every year. However, according to the Principal, they had tried their best to facilitate fire safety preparedness but it was very costly to do so as most of the equipment and accessories are expensive, especially with no vote head allocated for the same. **Picture 1** shows a hose reel that is attached to the dining hall, a reserve water tank with a pump and a fire ball respectively at Maliera High School.

*Picture 1: Firefighting at Maliera High School, Siaya.*



*Source: Physical verification of firefighting equipment by OAG Staff*

- 4.9 Ndumberi Girls Secondary School in Kiambu County and Kisii School in Kisii County had fire escape ladders installed in the dormitory while automatic fire extinguishers were observed at Rang'ala Girls High School in Siaya County. **Picture 2** shows a fire escape ladder at Kisii School.

*Picture 2 :Fire Escape Ladder at Kisii High School*



*Source: Physical verification of firefighting equipment by OAG Staff*

- 4.10 The audit found that schools were not able to acquire all the required types of firefighting equipment and tools due to lack of a functional Sub-Committee to inform the school management on the need of prioritizing fire safety preparedness activities among other safety issues. The schools, therefore, acquired different types of equipment that were necessary to enable them be prepared to handle fire incidences. Due to lack of appropriate firefighting equipment, in case of a fire incidence, schools' buildings are extensively damaged as shown in **Picture 3**.
- 4.11 In addition, MoE issued a circular number MoE.HQS/3/6/36 dated 30 January, 2019 directing schools not to use any monies from the maintenance and improvement vote head in acquiring firefighting equipment. Given 26% of the schools had been reallocating funds from the maintenance and improvement vote



head, this poses a risk of schools not being able to fund fire safety preparedness activities. Due to the new directions through the circular, there will be less funds available for fire safety preparedness activities in future, leading to a risk of reduction in the level of fire safety preparedness.

*Picture 3: A Dormitory destroyed by fire at Ambira High School*



*Source: OAG Staff physical verification of school buildings destroyed by fire*

**b) No fire Assembly Points in Some Schools and Inadequacies in Others**

- 4.12 The Fire Risk Reduction Rules, 2007 Section 24 (1), requires every occupier to identify a location where everyone should assemble in the event of a fire. Physical verification of the 42 sampled schools revealed that 25 schools had fire assembly points that were large enough to accommodate the school population. Three of these were not easily accessible as they were enclosed with barbed wire or a fence as shown in **Picture 4**. Out of the 25 schools with fire assembly points, five schools had more than one assembly point to enable different locations to easily access an assembly area in case of an emergency.



- 4.13 Schools need to have sufficient and accessible assembly points to ensure that the school fraternity has an identified meeting area during or after a fire incident. This is for ease of identification of persons who may be trapped in the building or are missing in order to take the necessary measures.

*Picture 4: A fire assembly point with barbed wire around it*



*Source: OAG Staff physical verification of a fire assembly point in a sampled school*

- 4.14 The lack of, or inappropriate fire assembly points in schools, was as a result of the schools' management not being sensitized on the importance of identifying fire assembly points and how they should be designed. Lack of a functional fire assembly point is likely to lead to confusion on where to assemble in the event of a fire and some students and staff might end up being trapped in buildings resulting to loss of lives or serious injuries. It would also be difficult to conduct a roll call and establish the number of people trapped in the buildings in the event of fire.

**c) Schools were not Constructed in Accordance with the Required Safety Standards to Ensure Easy Escape in the Event of a Fire Incident**

- 4.15 Section 6.2 of the safety manual for schools in Kenya requires that in every classroom and dormitory, the doorways should be easily accessible for emergency purposes hence opening outwards. Physical verification revealed that 22 out of the 42 sampled schools had their doors opening inwards in the classrooms. In the dormitories, five schools out of the 40 sampled schools had doors opening

inwards. The analysis is as illustrated in **Table 3**. Due to the fact that doors open inwards, in the event of fire, students are likely to lock themselves from the inside of the buildings as they struggle to get out, given the population in the schools.

- 4.16 Further, Section 6.2 of the manual states that windows in school buildings should not have metal grills. Physical verification revealed that contrary to the requirements, some schools had windows with reinforced metal grills. A summary of the observations relating to doors and windows is provided in **Table 3**.

*Table 3: Schools where windows had grills and door were opening inwards*

	Number of schools that had windows with grills	Number of schools that had doors opening inwards
Classrooms	18	22
Dormitories	6	5

*Source: OAG-K analysis of school buildings compliance with fire safety requirements*

- 4.17 With the type of windows on the table above, in the event of fire, some students might not be able to evacuate in good time and this could lead to injuries and loss of lives.
- 4.18 The manual further states in section 6.2 that each dormitory should have a door at each end and an additional emergency exit at the middle, which should be clearly labelled as an emergency exit. Moreover, all doorways should be wide enough, at least 5 feet wide. This is to allow enough exit points which have ample escape space in the event of a fire. Physical verification revealed that schools did not adhere to this requirement as detailed in **Table 4**.

*Table 4: Fire Exits in the School Dormitories*

Parameters	No. of schools
No labelled emergency exit	33
Schools that had only one door in the dorm	9
Blocked emergency exits	8
Schools that had narrow doorways	7

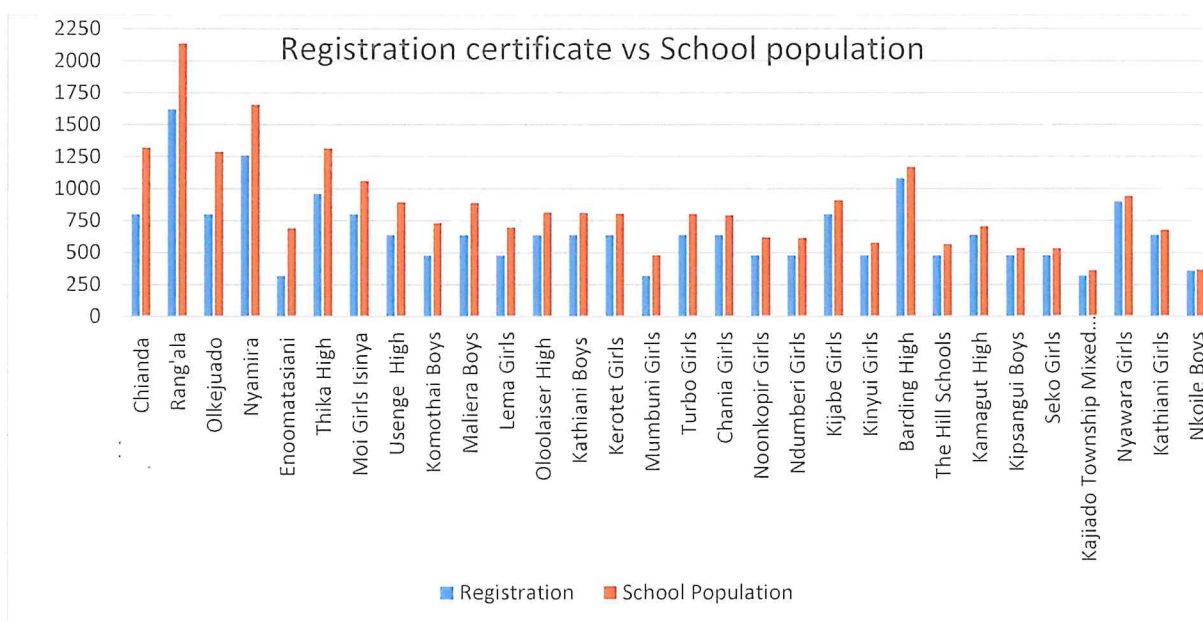
*Source: OAG-K analysis of buildings compliance with fire safety preparedness*

4.19 School buildings did not adhere to these safety standards because most of the schools did not have a safety subcommittee to ensure compliance with safety measures. In addition, the Directorate of Quality Assurance and Standards conducted minimal follow up to ensure implementation of their recommendations for the schools assessed.

#### d) Congestion in Schools Hindering Easy Exit in the event of a Fire Incidence

4.20 The Ministry of Education issues schools with registration certificates indicating the maximum number of students that each institution should have. MoE requires secondary schools to adhere to the number of students and streams as indicated in the registration certificate. A documentary review of the school registration certificates shows that 30 out of the 40 schools visited exceeded the number stated in the registration certificate as indicated in [Annexure 6](#) with the highest school having an over population of 519 students. The congestion is also illustrated in **Figure 3** showing the position of the 30 over populated schools.

Figure 3: Congestion in Schools



Source: OAG-K analysis of data on school population versus school registration certificates



- 4.21 St. Francis Rang'ala Girls Secondary School for example had a population of 2,134 students against the required number in the registration certificate of 1,620 students. Form one and two classrooms had a minimum of 60 students and their dormitories were packed with triple decker beds so as to accommodate the surplus students thereby compromising on the safety of the students.
- 4.22 In addition, at Nyamira Girl's Secondary School in Siaya County, students were congested in an old structure which was once an old building used as an office that had been condemned by the State Department of Public Works. The reclaimed dormitory was packed with both double and triple decker beds to accommodate the over enrollment of students from the required 1,260 as per the registration certificate to the current population of 1,657.
- 4.23 The Basic Education Regulations state that each class should accommodate a maximum of 45 learners. However, documentary review of the school enrollment and the school registration certificates revealed that 29 sampled schools had classes with more than 45 students while eight schools had less than 45 students per classes as detailed in [Annexure 7](#).
- 4.24 The Ministry of Education emphasizes that beds should be single or double-decker and not any other. The safety standards manual further states that spacing between the beds should be at least 1.2 meters while the pathway space should not be less than 2 meters. Physical verification revealed that 6 schools had triple decker beds while 34 boarding schools visited had double decker beds without the required spacing. Most of the dormitories were congested as shown in **Picture 5**.

Picture 5: Congestion in Dormitories



Congested dormitory with triple decker at Rang'ala Girls High School, Photo taken on 13<sup>th</sup> February 2019 by Audit the team



Congested dormitory at Nyamira Girls Secondary school, Photograph taken at 12<sup>th</sup> February 2019 by the Audit team

4.25 Interviews revealed that congestion in schools was as a result of the government introducing 100% transition of students from primary to secondary schools from the year 2017. This has resulted to more students' joining secondary schools. The increased transition rate was not planned for in advance by the government in terms of infrastructure. Consequently, most schools did not receive funds for construction of more class rooms and dormitories to accommodate the increase in student numbers. In addition, the Ministry of Education had instructed secondary schools not to collect funds from parents to assist in construction of new infrastructure. Schools therefore had no option but to use the available infrastructure leading to congestion and a high risk of loss of lives in the event of a fire.

**II. Although the Regulations Require Schools to Have Functional Safety Subcommittees and Training of the School Community, this has not Happened in Many Schools**

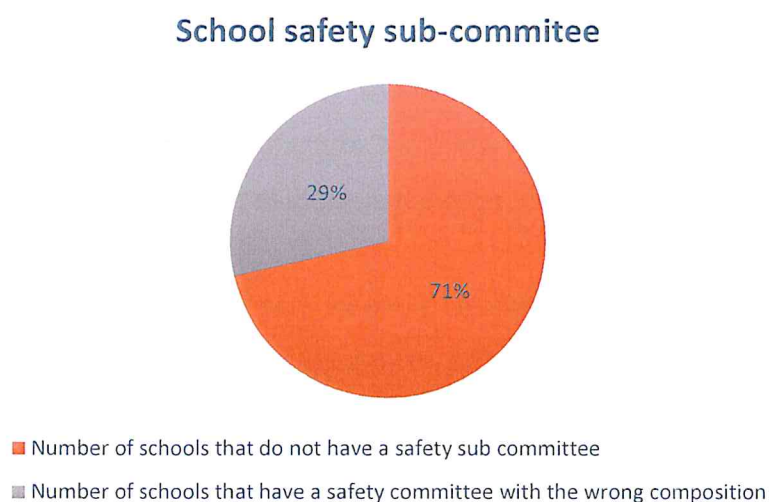
**a) Schools do not have Functional Safety Sub-Committees to deal with Fire Safety Preparedness**

4.26 Section 5.1 of the safety standards manual states that schools should have a safety sub-committee comprised of the chairperson in the Board of Management

(BOM), Principal, Deputy Principal, teacher in-charge of school safety, Guidance and Counselling teacher (G&C), teachers 'union representative in the school, assistant County Director of Education (CDE), a representative of crisis response team and two other members of the BOM.

- 4.27 Interviews with the schools' management of the sampled 42 schools revealed that none of the schools had a safety sub-committee with the required composition. 71% did not have a safety sub-committee in charge of fire safety among other safety issues while 29 % had committees in charge of safety in the school composed mainly of teachers as indicated in **Figure 4**. The absence or inadequate composition of a safety subcommittee was attributed to limited follow up by MoE on the need of constituting a safety subcommittee and how the responsibilities should be distributed in accordance with safety standards manual. Lack or wrong composition of a safety subcommittee could lead to schools not being able to identify fire safety needs, mobilize resources, monitor and evaluate the various aspects of fire safety in schools. Schools would therefore not be well prepared to handle fire incidences.

*Figure 4: Availability and composition of school safety sub-committees*



*Source: OAG-K analysis of availability and composition of safety sub committees in schools*



**b) Most schools do not co-ordinate with County Fire Officers to Acquire Comprehensive Training on Fire Safety Preparedness**

- 4.28 The safety standards manual for schools in Kenya requires that schools' management should invite the County fire officers to give talks and demonstrations to learners on fire safety preparedness in a school context. In addition, the schools are required to coordinate with the County fire officers to take them through fire drills at least twice every term.
- 4.29 Interviews conducted with the schools' management of the 42 sampled schools revealed that only Oololaiser High School in Kajiado County and Kamagut Secondary School in Uasin Gishu County had invited the local fire office to give talks and demonstrations on fire safety preparedness. Further, during interviews at the Kiambu County fire office, the Deputy Chief Officer emphasized that training of the school community is very crucial in ensuring fire safety preparedness. The County fire office explained that the office has not been able to offer training to public schools because public schools rarely invite them.
- 4.30 According to the County Fire Office, standard training in fire safety preparedness would require both tutorials and practical aspects that may require demonstrations. An effective training would therefore require some expenditure for the acquisition of consumables like fuel and certain basic firefighting equipment and materials for basic simulations of fire events. However, public schools have not been able to facilitate training in consultation with the County fire office because the schools are often unable to provide the minimum consumables needed to carry out the training.
- 4.31 The audit further revealed that 30 schools had invited private entities to give demonstrations on how to use fire extinguishers. However, the training left out other aspects of fire safety preparedness. For instance, the trainings did not include; how to deal with fires using other firefighting equipment apart from the extinguishers, the importance of having a fire assembly point and how to use it,

how to escape from a fire hazard area and emergency numbers to contact in case of a fire incidence.

- 4.32 The failure to invite the local County fire office was attributed to lack of awareness by schools on the role of the County fire office in fire safety preparedness. Consequently, schools were not ready to combat fire incidences as they lacked comprehensive training in fire safety preparedness.

### **III. Guidance and Counselling in Schools is not working as Intended**

- 4.33 Documentary review of MoE fire incidence reports have indicated that most of the fires in schools are as a result of indiscipline cases. All schools are therefore required to provide guidance and counseling services to students as an essential corrective measure focusing on moral values and character formation of the learners. This was especially after abolishing corporal punishment and expulsion of students in 2001 and replacing it with guidance and counselling in the 2015 Basic Education Regulations. In addition, the safety standards manual for schools in Kenya, 2008 section 6.9 states that schools are required to strengthen guidance and counselling at the school level by providing resources to enable them perform their duties effectively.
- 4.34 Further, the Basic Education Act 2013, section 59 requires the Board of Management (BoM) of a basic education institution to facilitate and ensure the provision of guidance and counselling to all learners. The audit noted that the Ministry had established a guidance and counselling department at the Headquarters. However, the department had two staff only, making it difficult for them to ensure that guidance and counselling was carried out effectively in all schools in the country. Therefore, MoE was doing very little with regards to providing guidance on how guidance and counselling should be carried out in schools.

4.35 Interviews with school management revealed that all 42 sampled schools had a guidance and counselling department. However, MoE has not provided BoM members with policy guidelines and regulations on how to implement guidance and counselling. The departments were therefore not well constituted and capacitated and therefore had minimal impact in reducing indiscipline cases in schools as described below.

**a) Schools did not have Trained Guidance and Counselling Teachers to deal with Indiscipline Cases likely to result into Fire Incidences**

4.36 The Basic Education Act, 2015 requires that the persons offering counselling should be duly qualified counsellors under the appropriate law and approved by the Cabinet Secretary. The Counsellors and Psychologists Act of August 2014, Article 23 (i), requires that counsellors should have a minimum of a Bachelor's degree in counselling or psychology to be licensed to practice.

4.37 As indicated in Table 5, 31 out of the sampled 42 schools, did not have qualified teachers offering guidance and counselling although, 36(85%) of the sampled schools were building their capacity by taking G&C teachers for short term courses in Guidance and Counselling. However, interviews revealed that the short term courses are not as effective. Hence, guidance and counselling teachers are still in need of professional training for them to be effective in provision of this crucial service in the schools.

*Table 5: Qualifications of Guidance & Counselling teachers in the sampled schools*

<b>Teachers Qualification/ No. of Workshops attended</b>	<b>Number of Schools</b>	<b>Percentage</b>
Master's Degree in G&C	11	26%
Diploma in G&C	2	5%
Certificate in G&C	4	9 %
Workshop in the last 5 yrs.	36	85 %

*Source: OAG-K Analysis of qualifications of guidance and counselling teachers in sample schools*



- 4.38 Documentary review revealed that as much as all the schools had a guidance and counselling department, the number of counsellor teachers was low compared to the student population as shown in [Annexure 8](#). This contributed to reducing the level of effectiveness of guidance and counselling yet it is the main recommended discipline tool in schools.
- 4.39 At Oololaiser High School in Kajiado County, the audit team was informed that the school has had no fire incidence since its inception. Interviews with the school management indicated that the high discipline levels can be attributed to a functional guidance and counselling department. The school identified the gap of the teachers not having enough time to carry out guidance and counselling services and had employed a professional counsellor who visits the school every day to offer counselling services to students.
- 4.40 In addition, the head of guidance and counselling (G&C) department had a Master's degree in Educational Psychology. The teacher therefore has sufficient knowledge and skills on how to offer professional guidance and counselling services. The G&C Head of Department had ensured that the school had a secluded guidance and counselling room that allowed for confidentiality. Upon physical verification, the room was conducive with comfortable chairs and was equipped with snacks and beverages which students could take while undergoing counselling sessions. The room has a lockable desk where files containing students' confidential information were kept. The department also had reading materials on a wide variety of issues on guidance and counselling.
- 4.41 At St. John Tala Boys High School in Machakos County, the teachers indicated that fire incidences in secondary schools were a result of drug abuse. All the students in the school were grouped into various family units which comprised of between 10 and 20 students drawn from Form 1 to Form 4 where effects of drug abuse were taught. Students facing similar issues,

for example, poor performance and indiscipline were taken through group counselling where matters related to drug abuse were also discussed. A student suspected to be on drugs was sent home and the parents were given the responsibility of taking him to a drug test center for testing. If the student tested positive, he was referred to a professional counselor. Upon re-admission, the student had to resume with a letter from the professional counselor indicating the number of sessions attended and the way forward. In addition, the class teachers were expected to take the students through life skills lessons once per week. A similar process was being implemented at Kathiani Boys High School where an expelled student is required to get the services of a professional counsellor at the parent's cost before re-admission to the school.

**b) Some school lack secluded guidance and counselling rooms and lockable cabinets**

- 4.42 For effective guidance and counselling, schools are required to have a secluded room and lockable cabinets for confidentiality of information. Best practice requires counselling rooms to be in a quiet appropriate location, away from the administration block and classrooms. Counselling records are also to be maintained in a confidential manner.
- 4.43 Through physical verification, the audit revealed that out of the 42 schools visited, 25 had secluded rooms in an appropriate quiet location 24 schools had lockable cabinets or desks in the counselling rooms to allow for confidentiality. The guidance and counselling department in Kamagut Secondary School had gone a step further by keeping documentation using codes instead of the name of students to enhance confidentiality.
- 4.44 Interviews revealed that as much as the management was aware of the need to have secluded rooms and lockable cabinets, this was not highly prioritized. This was due to the fact that there were other competing needs

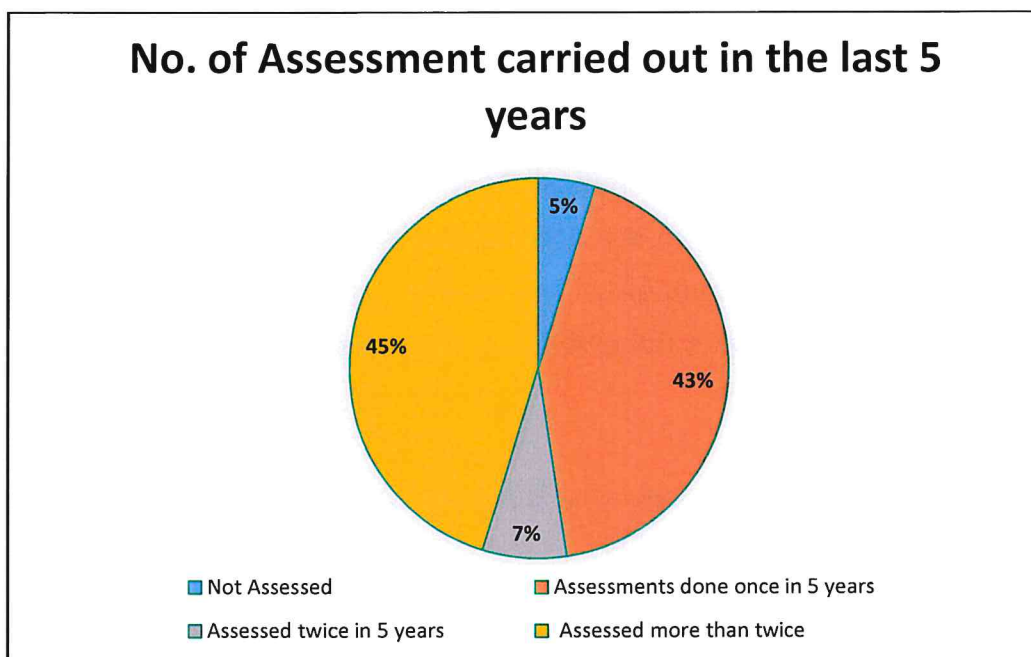
and further, there was no regular follow up from the Ministry of Education. With the lack of a secluded room, confidentiality was highly compromised. Students therefore avoided seeking guidance and counselling services thus rendering the department ineffective. For instance, in St. Catherine Lema Girls High School in Machakos County, guidance and counselling was conducted under trees in the compound where everyone could clearly see the students being counselled. In guidance and counselling, confidentiality is paramount and if it is not observed, students are reluctant to seek for the services.

#### **IV. Inadequate Monitoring and Evaluation of Fire Safety Preparedness in Schools**

- 4.45 Section 7.0 of the Safety Standards Manual, 2008 requires that school safety assessment which includes fire safety preparedness, be monitored by Quality Assurance and Standards Officers (QASO's) as part of their routine advisory visits to schools. The schools are supposed to be assessed at least once in every two years. QASO's are also required to follow up on implementation of their recommendations within three to six months after issuing an assessment report.
- 4.46 Interviews and documentary review revealed that at least half of the schools visited had been assessed at least twice in the last five years as indicated in **Figure 5**. A detailed analysis of number of assessments done in each school is detailed in [Annexure 9](#).



Figure 5: Number of assessments carried out by Quality Assurance Officers in the last 5 years



Source: OAG-K analysis of number of Quality Assurance and Standards Assessments conducted

4.47 The inadequate assessment was attributed to inadequate staff at the various sub counties' offices. Best practice requires that in order for QASO's to work efficiently during assessment, the officers are supposed to have a team of at least three officers in each sub county to enable them form a panel to assess a school effectively. Documentary review indicated that all the sampled counties had less than three QASO's in all their sub counties as indicated in **Table 6** and detailed in [Annexure 10](#). They therefore had to collaborate with other sub-counties so as to form a team of at least three officers to enable them conduct an assessment in schools. QASOs are expected to carry out assessments in all primary, secondary and tertiary institutions in their respective sub counties. Consequently, due to the many schools in need of assessments, it was not practically possible for assessments to be conducted at least once in every two years.

Table 6: Distribution of QASOs officers in the Sampled Counties

County	No. of Sub Counties	Sub Counties with 1 SQASOs	Sub Counties with 2 SQASOs	Sub Counties with no SQASOs
Kajiado	5	3	1	1
Machakos	9	7	1	1
Siaya	6	5	0	1
Uasin-Gishu	6	4	1	1
Kiambu	12	8	1	3

Source: OAG-K analysis of Distribution of QASO in the sampled counties

- 4.48 In addition to understaffing, the Ministry of Education had not ensured that QASOs have adequate resources to facilitate logistics for assessment of schools. For instance, in Isinya Sub County, QASOs did not have motor vehicles to facilitate their movement and yet the sub counties are vast with some schools in very remote areas. This therefore hindered regular assessment of schools especially the ones in interior areas.
- 4.49 In order to carry out their assessments, QASOs use a quality index tool. The tool is a comprehensive check list that covers safety issues. However, a review of the checklist used during assessment revealed that it only touches on general issues dealing with fire safety preparedness. Schools are therefore not comprehensively assessed on fire safety preparedness. Consequently, most schools were not getting expert advice on measures they needed to take to ensure that they are well prepared to handle fire incidences.

## **V. Ministry's Response on the Audit Report.**

- 4.50 After the completion of the audit, the Ministry of Education was sent the draft report for their information and comments. Despite follow ups with the auditee, they did not provide their comments. In the absence of the response, it is assumed that the client agrees with our findings and therefore wishes the report to be finalized.

## CHAPTER FIVE

### CONCLUSIONS

- 5.1 Secondary schools in Kenya are expected to implement the requirements of the Safety Standards Manual for Schools in Kenya, 2008 and instructions issued by the Ministry of Education to ensure that schools are prepared to handle fire incidences. Despite the Ministry of Education having developed measures to ensure fire safety in schools, secondary schools were not adequately prepared to handle fire incidences. The audit found that;
- 5.2 Most of the schools had a copy of the school's safety standards manual. However, they were not familiar with what was required of them in terms of fire safety preparedness. This was attributed to laxity in the implementation of the safety standards manual and minimal supervision by the Ministry of Education. The schools did not have functional safety sub committees to help in identification of fire safety preparedness needs and oversee implementation of fire safety preparedness activities. The matter is further compounded by the fact that they were also not engaging their respective local fire station offices for training on fire safety preparedness activities leaving them ill prepared to handle fire incidences.
- 5.3 Most school fires are attributed to indiscipline issues and the Ministry has identified guidance and counselling as a key area with regard to management of discipline in secondary schools. However, guidance and counselling was not working as intended. This was attributed to the fact that the Ministry of Education had not set a functional guidance and counselling system at the headquarters, the county levels and schools. Consequently, most schools were not offering the services in an effective manner.
- 5.4 Although the Quality Assurance and Standards department is mandated to monitor and evaluate safety in secondary schools, their impact on fire safety preparedness was low due to low staffing levels, inadequate resources for logistics and lack of a comprehensive checklist on fire safety preparedness.



## CHAPTER SIX

### RECOMMENDATIONS

- 6.1 In view of the findings and conclusions of the audit, the Auditor- General has proposed the following recommendations for implementation by the Ministry of Education to ensure that schools are prepared to handle fire incidences.
- 6.2 **To ensure that schools have adequate physical infrastructure to handle fire incidences, the Ministry of Education should;**
- i. Identify and recommend for use in schools, critical basic firefighting equipment and facilities that may be the most essential while keeping in mind the cost and efficiency constraints;
  - ii. Ensure that buildings that are constructed meet safety requirements;
  - iii. Ensure that buildings already constructed are renovated or remodeled to meet safety requirements;
  - iv. Rationalize the status of classrooms and dormitories with a view of seeking opportunities for expansion in response to the increased admissions.
- 6.3 **To ensure that schools have functional safety subcommittee and training of school fraternity on safety preparedness, the Ministry of Education should;**
- i. Follow up on the implementation of the safety manual to ensure that schools set up functional safety subcommittees;
  - ii. Develop a framework for engagement between secondary schools and county fire officers;
  - iii. Encourage liaison between secondary schools and the county fire offices to enable the training of the school fraternity on fire safety.

- 6.4 **To ensure that guidance and counselling in schools is working as intended, the Ministry of Education should;**
- i. Strengthen the guidance and counselling unit at the headquarters so that it is functional;
  - ii. Strengthen guidance and counselling in schools by offering regular training to the teachers who offer the services.
- 6.5 **To ensure that there is adequate monitoring and evaluation on fire safety preparedness in schools by quality assurance and standards officers, the Ministry of Education should;**
- i. Rationalize deployment of Quality Assurance Officers at the Sub-Counties to ensure enough numbers to conduct timely monitoring and evaluation on fire safety preparedness in schools.
  - ii. Strengthen the logistical support for quality assurance standards officers to make them more effective;
  - iii. Mainstream fire safety preparedness by incorporating it in the quality assurance standards officers Quality Assessment Index tool.

## ANNEXURES

### Annexure 1: Audit Sample

County	School	Gender	Fire Incidence Occurrence	No. of Schools
Kiambu	Ndumberi Girls	Girls	Fire incidence	8
	Thika High School	Boys	No fire incidence	
	Kijabe Boys High School	Boys	Fire incidence	
	Komothai Boys	Boys	Fire incidence	
	Riabai High	Boys	Fire incidence	
	Kijabe Girls	Girls	No fire incidence	
	Chania Girls	Girls	No fire incidence	
	Gathirimu Girls T. High Sch.	Girls	Attempted fire incidence	
Machakos	St. John Tala Boys High Sch.	Boys	Fire incidence	9
	Masii Boys High School	Boys	Fire incidence	
	Mumbuni Girls	Girls	No fire incidence	
	Kangundo High School	Boys	Fire incidence	
	Misyani Girls	Girls	Fire incidence	
	Kinyui Girls	Girls	No fire incidence	
	Kathiani Girls	Girls	No fire incidence	
	Lema Girls	Girls	No fire incidence	
	Kathiani Boys High School	Boys	Fire incidence	
Siaya	Barding Boys High School	Boys	Fire incidence	9
	Maliera Boys High School	Boys	Fire incidence	
	Ambira Boys	Boys	Fire incidence	
	Usenge High School	Boys	Fire incidence	
	St. Francis Rang'ala Girls	Girls	No fire incidence	
	Nyawara Girls	Girls	Fire incidence	
	Nyakongo Girls	Girls	No fire incidence	
	Nyamira Girls	Girls	No fire incidence	
	Chianda High School	Boys	Fire incidence	
Kajiado	Kitengela Magereza Sec School	Mixed	No fire incidence	9
	Kajiado Township Mixed Sec. Sch.	Mixed	No fire incidence	
	Kisaju Dipak Secondary School	Mixed	No fire incidence	
	Olkejuado High School	Boys	Fire incidence	
	Noonkopir Girls	Girls	No fire incidence	
	Moi Girls Isinya	Girls	Fire incidence	
	Nkoile Boys	Boys	No fire incidence	
	Enoomatasiani Girls	Girls	No fire incidence	
	Ololaiser High School	Boys	No fire incidence	
Uasin-Gishu	The Hill School Girls	Girls	Fire incidence	7
	Kamagut High School	Mixed	Fire incidence	
	Seko Girls High School	Girls	No fire incidence	
	Turbo Girls	Girls	No fire incidence	
	Kimoning Secondary School	Boys	Fire incidence	
	Kipsangui Boys	Boys	No fire incidence	
	Kerotet Girls High School	Girls	No fire incidence	
<b>Total</b>				<b>42</b>



## Annexure 2: Assessment criteria

Audit Question	Audit Questions		Assessment Criteria
	Sub questions	Sub-Sub Questions	Specific Criteria
What is the extent of fire safety preparedness in secondary schools?	Do the Schools have a Safety Sub –Committee that deals with Fire Safety Issues?	<p>Do schools have the right composition of a Safety Sub Committee to deal with safety issues?</p> <p>Does the Safety Sub-Committee carry out its required functions as required in the Fire Safety Standards Manual?</p>	<p>The Safety Standards Manual states that schools should have a Safety Sub –Committee comprised of a Chairperson in the BOM, Principal, Deputy Principal, Teacher in-charge of school safety, Guidance and counselling teacher, Teachers ‘union representative in the school, Assistant CDE, a representative of Crises response team and two other members of the BOM.</p> <p>The specific functions of the Committee shall be to: identify the safety needs of the school with a view to taking the necessary action; mobilize resources to ensure a safe, secure and caring environment for learners, staff and parents. Monitor and evaluate the various aspects of school safety with a view to enhancing school safety. Form sustainable networks with all stakeholders to foster and sustain school safety.</p> <p>Keep learners, parents and other stakeholders informed about school safety policies and implementation activities. seek the support of parents and stakeholders and ensure their participation in activities relating to school safety and constantly review issues of child safety in and around the school</p>
	Do schools have the required firefighting equipment that are appropriately distributed and serviced?	Do schools have the required firefighting equipment?	The Safety Standards Manual, 2008 states that schools should have fire extinguishers, fire alarms and fire blankets.
		Do the schools have appropriately distributed and inspected firefighting equipment?	<p>The Safety Standards Manual, 2008, requires each block in the school to be fitted with serviced fire extinguishers.</p> <p>The Fire Reduction Rules, 2007 requires every occupier to ensure that, in selecting and distributing fire extinguishers in the workplace, the distribution and selection to be based on the classes of fires anticipated, the size and degree of hazard caused by a fire.</p> <p>According to Fire Reduction Rules, 2007 inspection and testing of all firefighting appliances in the work place</p>

			should be carried out by a competent person at least once every twelve months
	Are the school's buildings constructed as per the fire safety standards to allow easy exit during a fire incidence?	Are windows in school's buildings constructed as per the fire safety standards?	According to the Safety Standards Manual, 2008 windows must be without grills and should be easy to open outwards.
		Are the doors in school's buildings constructed as per the fire safety standards?	The Schools Safety Standards requires that; the doors in the dormitory should wide enough at least 5 feet wide. Each dormitory should have a door at each end and an additional emergency exit at the middle which should be clearly labelled as 'emergency exit' In the school's buildings the doors should open outwards
		For storied buildings are the stairways constructed as per the required fire safety standards?	According to the Safety Standards Manual, for storied buildings the stairways should be located at both ends of the building and should be clear from obstruction at all times
	Do schools have the required number of students in the classroom?		According to the Safety Standards Manual, classrooms should accommodate a maximum of 30 learners in one seater desk and 40 learners in two-seater desk. This is also in line with the provision of MoE circular on health and safety standards in educational institutions 2001
	Is the spacing of beds and type of beds in the school's dormitories as per the required fire safety standards for easy exit during a fire incident?		According to the Safety Standards Manual, the space between the beds should be at least 1.2 meters while the corridor or the pathway space should not be less than 2 meters.  MoE quality assurance standards requires beds to be either single or double decker or not any other.
	Do schools have fire assembly points and evacuation maps?		The Fire Reduction Rules, 2007 require that every occupier to identify a location where everyone should assemble in the event of fire. The Safety Standards Manual requires that schools should have evacuation maps at every entrance and exit of a building to act as a guide in the event of fire.
	Do schools conduct Fire drills as per the required fire safety standards		The Safety Standards Manual requires that Schools should schedule practice drill session for fire and other situations that the safety committee determines necessary to practice. The learners and staff should undertake periodic fire drills at least twice a term.
	Do schools invite local fire		The Safety Standards Manual should invite the local fire department to give talks and demonstrations to learners about fire safety preparedness in a school context.

	department to give talks and demonstrations on fire safety preparedness?		
	Do schools provide guidance and counselling services to students?		<p>The Basic Regulations, 2015 states that all schools should provide guidance services to all learners, distinct from counselling services.</p> <p>Counselling services as an essential corrective measure</p> <p>The Basic Education Act No.14 of 2013 states that learners shall not be subjected to torture and cruel, inhuman or degrading treatment or punishment in any manner whether physical or psychological</p> <p>According to the Safety Standards Manual, 2008 schools are required to strengthen guidance and counselling at the school level by providing teacher counsellors to every public school, facilitating the training and providing the necessary resources to enable them perform these duties effectively</p>
Does MoE monitor and evaluate fire safety preparedness in secondary schools?	<p>Are the Quality Assurance and Standards Officers monitoring implementation of fire safety measures?</p> <p>After monitoring and evaluation has been done, does MoE ensure that remedial actions have been taken?</p>	<p>Do the Quality Assurance and Standards Officers prepare monitoring reports?</p> <p>What is the reporting framework for reports done on fire safety preparedness?</p> <p>Do the QASO recommend a budget for fire preparedness activities after assessment?</p> <p>Are the recommendations given by QASO implemented?</p>	<p>The Safety Standards Manual, 2008 states that School safety assessment can also be undertaken by designated education officers but should also be monitored by Quality Assurance and Standards Officers (QASOs) as part of their routine advisory visits to schools</p> <p>According to the Safety Standards Manual, MoE should carry out monitoring and evaluation of the implementation of the manual in order to ensure that progress is made towards the realization of the noble goals for which it was developed.</p> <p>According to the Safety Standards Manual the process of monitoring and evaluation should be based on the principle that evaluation results should form the basis for taking the necessary remedial actions</p>



### Annexure 3: Documents reviewed

S/N	DOCUMENT REVIEWED	REASONS
1	National Disaster Management Unit (NDMU) Basic Incident Management	To understand classes of fire and the process description of fire safety preparedness.
2	Safety Standard Manual for schools in Kenya, 2008	To understand the activities that a school should carry out in order to be prepared to handle fire incidences.
3	Fire Reduction Rules, 2007	To understand how often fire extinguishers should be maintained and how fire assembly points should be identified.
4	Rapid Assessment of Arsons in Secondary Schools in Kenya	To understand the causes of fire Incidences in secondary schools and the recommendations given by the commission.
5	Report on Schools Unrest, 2018	To find out the number of schools that encountered fire incidences per region in 2018, the cause of the fires and recommendations given.
6	Fire Incidence Reports	To understand the causes of fires in schools, the measures taken when fire Incidence occurs and whether the schools adhere to the recommendations given from the reports.
7	Quality Assurance and Standards Assessment Report	To understand the roles of the directorate of Quality assurance and standards in relation to fire safety preparedness in secondary schools and the checklist they use when carrying out assessment in schools.
8	MoE Strategic plan 2013-2017	To understand the, vision, mission and the structure of the Ministry.
9	Basic Education Act, 2013	To understand how corporal punishment was banned in schools and how guidance and counseling which was to replace corporal punishment should be done in schools.
10	Basic Education Regulation, 2015	To understand how Guidance and Counseling should be conducted in schools.

#### Annexure 4: Officers Interviewed

LOCATION	OFFICIAL INTERVIEWED	REASONS
Schools	Joint interview with; Principal, Deputy Principal, Head of Department Boarding, Head of Department Guidance and Counselling, Teacher- in-Charge of Safety	To assess whether schools are prepared to handle fire incidents in terms of; acquisition and installation of appropriate firefighting equipment, construction of school buildings as per the required standards, identification of fire assembly points, formation of school safety sub-committee, training of school fraternity on fire safety preparedness, displaying of evacuation maps, conducting fire drills and setting up of functional guidance and counselling departments.
Local Fire Station	County Fire Officer	To find out the activities that schools should undertake in order to be prepared to handle fire incidences.
MoE	Director - Directorate of Secondary Education	To find out the role of MoE in fire safety preparedness in secondary schools in Kenya.
	Director- Directorate Quality Assurance and Standards	To find out the role of QASO in ensuring that secondary schools are prepared to handle fire incidences.
	County Quality Assurance Officer	To find out the activities that the County Quality Assurance Office undertakes to ensure that schools are prepared to handle fire incidents.

### Annexure 5: Other firefighting equipment in schools

Type of Equipment	Administration Block	Classes	Laboratory	Library	Dormitory	Kitchen	Halls
Hose reel	1	1	—	1	3	—	2
Smoke detectors	1	—	—	—	5	—	—
Siren	2	—	—	—	1	—	—
Escape stairways	0	—	—	—	1	—	—
Automatic fire extinguisher	1	—	—	—	1	—	—
Fire bell	1	—	—	—	0	—	—
Sand bucket	0	5	5	1	5	3	1

Maliera High was the only school with a fire ball



### **Annexure 6: Schools registered population versus current population**

	<b>Name of School</b>	<b>Registration Population</b>	<b>Current Population</b>	<b>Over/under Population</b>
1	Chianda High	800	1319	519
2	Rang'ala Girls	1620	2134	514
3	Olkejuado High	800	1288	488
4	Nyamira Girls	1260	1657	397
5	Enoomatasiani High	320	691	371
6	Thika High	960	1313	353
7	Moi Girls Isinya	800	1060	260
8	Usenge High	640	892	252
9	Komothai Boys	480	731	251
10	Maliera Boys	640	888	248
11	Lema Girls	480	696	216
12	Oloolaiser High School	640	814	174
13	Kathiani Boys High School	640	812	172
14	Kerotet Girls High School	640	801	161
15	Mumbuni Girls	320	480	160
16	Turbo Girls	640	799	159
17	Chania Girls	640	791	151
18	Noonkopir Girls	480	617	137
19	Ndumberi Girls	480	613	133
31	St. John Tala Boys High School	800	910	110
20	Kijabe Girls	800	908	108
21	Kinyui Girls	480	576	96
22	Barding Boys High School	1080	1165	85
23	The Hill School Girls	480	565	85
24	Kamagut High School	640	702	62
25	Kipsangui Boys	480	532	52
26	Seko Girls High School	480	530	50
27	Kajiado Township Mixed	320	361	41
28	Nyawara Girls	900	940	40
29	Kathiani Girls	640	677	37
30	Nkoile Boys	360	365	5
32	Misyani Girls	640	612	-28
33	Nykongo Girls	320	288	-32
34	Kitengela Magereza	540	498	-42
35	Ambira Boys	1080	1029	-51
36	Riabai High	480	368	-112
37	Kijabe Boys High School	1080	958	-122
38	Masii Boys High School	800	647	-153
39	Kimoning Secondary School	320	158	-162
40	Kisaju Dipak Secondary	360	111	-249

### **Annexure 7: Average number of students per stream**

<b>No.</b>	<b>Name of School</b>	<b>Form 1</b>	<b>Form 2</b>	<b>Form 3</b>	<b>Form 4</b>
1	Chania Girls	51	48	53	50
2	Komothai Boys	58	51	42	43
3	Riabai High School	49	47	39	25
4	Kijabe Girls	55	55	47	43
5	Mumbuni Girls	45	66	55	52
6	Misyani Girls	52	60	43	50
7	Kinyui Girls	46	47	39	41
8	Kathiani Girls	42	40	42	45
9	Lema Girls	73	59	51	43
10	Nyawara Girls	52	63	54	52
11	Rangala Girls	64	76	69	67
12	Nyakongo Girls	44	44	27	30
14	Nyamira Girls	61	75	64	78
15	Noonkopir Girls	51	62	51	42
16	Moi Girls Isinya	57	61	66	49
17	Nkoile Boys	65	56	54	35
18	Enoomatasiani Girls	58	57	44	50
19	Turbo Girls	45	46	42	47
20	Kimoning Sec. School	57	47	33	21
21	Kipsangui Boys	43	44	56	52
22	Ndumberi Girls	64	57	64	63
23	Thika high School	54	52	48	55
24	Barding Boys High School	43	45	65	58
25	Ambira High School	48	65	49	44
26	Chianda High School	65	65	60	62
27	Usenge High School	60	51	51	51
28	Kitengela Magereza	109	70	70	
29	Oloolaiser High	48	51	44	48
30	Kisaju Dipak	46	19	27	19
31	Kajiado Township	55	58	37	31
32	Kamagut High School	48	51	48	41
33	kerotet Girls High	49	52	51	47
34	Seko Girls High	52	43	40	41
35	Hill School Girls-Eldoret	52	50	38	47
36	Kathiani Boys	54	52	48	55
37	Masii Boys High School	33	55	39	35
38	Kijabe Boys High Sch	49	52	46	44
39	Maliera Sec. School	53	54	59	57
40	St John Tala High Sch	59	53	45	32

### Annexure 8: School population versus number of G&C teachers

No.	School	Population in 2019	No. of Guidance & Counselling Teachers
1	Ndumberi Girls	613	3
2	Thika High School	1313	8
3	Kijabe Boys High School	963	4
4	Gathirimu Girls T. High School	978	8
5	St. John Tala Boys High School	910	8
6	Masii Boys High School	647	6
7	Kangundo High School	734	5
8	Kathiani Boys High School	812	2
9	Barding Boys High School	1165	4
10	Maliera Boys High School	888	3
11	Ambira Boys	1029	8
12	Usenge High School	892	3
13	Chianda High School	1319	7
14	Kitengela Magereza Sec School	498	5
15	Kajiado Township Mixed Sec. Sch.	361	4
16	Kisaju Dipak Secondary school	111	4
17	Oloolaiser High School	814	6
18	The Hill School Girls	565	4
19	Kamagut High School	702	5
20	Seko Girls High School	530	4
21	Kerotet Girls High School	801	4
22	Rang'ala Girls	2134	6
23	Komothai Boys	731	6
24	Riabai High	368	6
25	Chania Girls	791	5
26	Kijabe Girls	908	4
27	Mumbuni Girls	480	5
28	Misyani Girls	612	4
29	Kinyui Girls	576	8
30	Kathiani Girls	677	4
31	Lema Girls	696	5
32	Nyawara Girls	940	9
33	Nyakongo Girls	288	17
34	Nyamira Girls	1657	9
35	Olkejuado High School	1288	5
36	Noonkopir Girls	617	5
37	Moi Girls Isinya	1060	6
38	Nkoile Boys	365	1
39	Enoomatasiani Girls	691	5
40	Turbo Girls	799	2
41	Kimoning Secondary School	158	3
42	Kipsangui Boys	532	5



### **Annexure 9: Distribution of QASOs in the Counties**

<b>County</b>	<b>No. of Sub Counties</b>	<b>No. of QASOs</b>	<b>Ideal No. of QASOs</b>	<b>Deficit</b>	<b>% Deficit</b>
Garissa	6	2	18	16	89%
Wajir	6	3	18	15	83%
Mandera	6	3	18	15	83%
Kilifi	6	4	18	14	78%
Tana River	3	2	9	7	78%
Samburu	3	2	9	7	78%
Kwale	4	3	12	9	75%
Marsabit	7	6	21	15	71%
Kiambu	12	11	36	25	69%
Lamu	2	2	6	4	67%
Taita Taveta	4	4	12	8	67%
Turkana	6	6	18	12	67%
Siaya	6	6	18	12	67%
Busia	7	8	21	13	62%
Mombasa	6	7	18	11	61%
Embu	5	6	15	9	60%
Kajiado	5	6	15	9	60%
Bomet	5	6	15	9	60%
Bungoma	9	11	27	16	59%
Machakos	8	10	24	14	58%
West Pokot	4	5	12	7	58%
Kisumu	7	9	21	12	57%
Nyeri	6	8	18	10	56%
Uasin Gishu	6	8	18	10	56%
Laikipia	3	4	9	5	56%
Kakamega	12	16	36	20	56%
Kisii	9	12	27	15	56%
Kirinyaga	5	7	15	8	53%
Makueni	6	9	18	9	50%
Baringo	6	9	18	9	50%
Kericho	6	9	18	9	50%
Homa Bay	8	12	24	12	50%
Migori	8	12	24	12	50%
Nyandarua	5	8	15	7	47%
Nyamira	5	8	15	7	47%
Nakuru	11	18	33	15	45%
Meru	9	15	27	12	44%
Nandi	6	10	18	8	44%
Narok	6	10	18	8	44%
Murang'a	7	12	21	9	43%
Trans Nzoia	5	9	15	6	40%
Kitui	8	15	24	9	38%
Isiolo	2	4	6	2	33%
Vihiga	4	8	12	4	33%
Nairobi	9	18	27	9	33%
Elgeyo-Marakwet	4	10	12	2	17%
Tharaka-Nithi	3	12	9	-3	-33%
<b>Total</b>	<b>286</b>	<b>385</b>	<b>858</b>	<b>473</b>	<b>55%</b>

### Annexure 10: Quality Assurance assessments done in the last 5 years

	Schools	No. of Assessments
1	Misyani Girls	0
2	Kitengela Magereza Secondary School	0
3	Ndumberi Girls	1
4	Thika High School	1
5	Kijabe Boys High School	1
6	Chania Girls	1
7	Gathirimu Girls T. High Sch.	1
8	Masii Boys High School	1
9	Kangundo High School	1
10	Lema Girls	1
11	Maliera Boys High School	1
12	Ambira Boys	1
13	Usenge High School	1
14	Nyamira Girls	1
15	Chianda High School	1
16	Kajiado Township Mixed Sec. School	1
17	Moi Girls Isinya	1
18	Oloolaiser High School	1
19	Kamagut High School	1
20	Kerotet Girls High School	1
21	Kathiani Boys High School	2
22	Kisaju Dipak Secondary school	2
23	The Hill School Girls	2
24	Turbo Girls	3
25	Komothai Boys	5
26	Riabai High	5
27	Kathiani Girls	5
28	Rang'ala Girls	5
29	Nyawara Girls	5
30	Nyakongo Girls	5
31	Noonkopir Girls	5
32	Nkoile Boys	5
33	Enoomatasiani Girls	5
34	Kipsangui Boys	5
35	St. John Tala Boys High Sch.	10
36	Seko Girls High School	10
37	Kijabe Girls	15
38	Mumbuni Girls	15
39	Kinyui Girls	15
40	Barding Boys High School	15
41	Olkejuado High School	15
42	Kimoning Secondary school	15





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