

# **REPUBLIC OF RWANDA**

## **MINISTRY IN CHARGE OF EMERGENCY MANAGEMENT**

**P.O.BOX: 4386 KIGALI**



## **NATIONAL CONTINGENCY PLAN FOR FIRE INCIDENTS**

**Kigali, March 2019**

## **FOREWORD**

Disaster Management needs an integral approach for strengthened Disaster Management coordination. The Ministry in Charge of Emergency Management (MINEMA) plays the coordination role for Disaster Risk Management as the central operational actor during all phases of disaster management in collaboration with all stakeholders.

DRR being a cross cutting means that all sectors a major role in making sure that national development programs, Social Protection Sector and international conventions namely: Hyogo Framework for Action, and MDGs will be fully implemented and sufficient resources and efforts are put at all levels of the society, toward building the resilience of communities to disasters.

A capacity in the field of Disaster Risk Reduction and Management however remains a challenge for different types of disasters and that should be addressed. Integrating Disaster Risk Reduction and Management into Development planning at all levels requires the substantial budget allocation to all sectors in which DRR will be mainstreamed. Monitoring and Evaluation Framework for monitoring the sectors thus, consolidated efforts in DRR will result in minimization of the vulnerability of the nation.

Reinforcement of legal instruments such as Disaster Management Law and other regulations will be promoted so that Disaster Management, based on multi-disciplinary, inter-departmental, inter-sectorial and unified command approaches at all levels is reached. The Rwanda National Disaster Management Policy gives statutory backing to some of the essential functions and agencies by defining their roles, duties and responsibilities in all the three stages.

Local government entities are the key players in DRR as they are closely linked to the population, and will be efficiently empowered in order to be involved in Disaster Risk Reduction, to ensure their effective functions; Community participation in risk assessment, mitigation, planning, response and rehabilitation activities will be strengthened. This need to be promoted for better understanding of laws, codes conducts Early Warning System and warning messages and better coping mechanism.

MINEMA will take all necessary measures, coordinating implementation of all plans, policies, strategies, and cordially work with all stakeholders and partners in reaching the national overall Vision of “Building the Resilience of Nations and Communities to Disasters.”

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## ACRONYMS & ABBREVIATIONS

**CO:** Commanding Officer

**CoK:** City of Kigali

**DARHC:** Disaster Assessment, Recovery and Humanitarian Coordinator

**DDG:** Deputy Director General

**DG:** Director General

**DM:** Disaster Management

**DRR:** Disaster Risk Reduction

**EDPRS:** Economic Development and Poverty Reduction Strategy IC: Incident

**EOM:** Emergency Operations Manager

**ERT:** Emergency Response Team

**Eng. Reg:** Engineering Regiment

**EMS:** Emergency Medical Services

**EWS:** Early Warning System

**REG:** Energy Water and Sanitation Authority

**ICS:** Incident Command System

**IFRC:** International Federation of Red Cross/Red Crescent

**HA:** Hector

**JIMC:** Joint Intervention Management Committee

**Maj:** Major

**MDGs:** Millennium Development Goals

**MINEMA:** Ministry in Charge of Emergency Management

**MIFOTRA:** Ministry of Labor

**MINADEF:** Ministry of Defense Forces

**MINALOC:** Ministry of Local Government

**MINEDUC:** Ministry of Education

**MININFRA:** Ministry of Infrastructure

**MoE:** Ministry of Environment

**MoH:** Ministry of Health

**NCPF:** National Contingency Plan for Fire

**NISR:** National Institute statistics of Rwanda

**NEMA:** National Emergency Management Agency

**NPDRR:** National Platform for Disaster Risk Reduction

**NGOs:** Non-governmental Organizations

**No.** Number

**Lt. Col:** Lieutenant Colonel

**RBC:** Rwanda Biomedical Center

**RBS:** Rwanda Board Standards

**RCAA:** Rwanda Civil Aviation Authority

**RDB:** Rwanda Development Board

**RDF:** Rwanda Defense Force

**RHA:** Rwanda Housing Authority

**REMA:** Rwanda Environment Management Authority

**RNRA:** Rwanda Natural Resources Authority

**RNP:** Rwanda National Police

**RRC:** Rwanda Red Cross

**RTDA:** Rwanda Transport Development Authority

**RURA:** Rwanda Regulations Authority

**SAMU:** Service d'Aide Médicale Urgente

**UNHCR:** United Nations for High Commission for Refugees

## **EXECUTIVE SUMMARY**

The information contained in the fire incidents contingency plan is consistent with the areas of delivery of fire services that are recommended for review by Rwanda National Police (co-lead), Ministry of Defense, Ministry of Natural Resources, Rwanda Defense forces, Ministry of Health, Rwanda National Police (Fire and Rescue Brigade), Rwanda Civil Aviation Authority, and MINALOC.

The fire incidents contingency plan comes as an implementation of Fire safety response measures (fire prevention and firefighting) require a systematic assess of fire risks in public and public facilities safety and to provide services as may be necessary in accordance with the needs and circumstances. The implementation of the fire incidents contingency plan will be carried out by Inter-Agency Liaison teams and their roles and responsibilities in case of fire incidents occurrence are highlighted as well as the process of interventions.

The National Contingency Plan for Fire Incident is containing four chapters in which all matters of fire incident management are detailed. The chapter one denotes introductions citations, guiding principles, purpose of the national contingency plan for fire incidents, objectives, hence the chapter two is prevention & mitigation measures which elicit prevention strategies, and mitigation measures in order to protect and respond effectively. The chapter three highlights Scenario development where examples and cases of fire incidents are managed quickly and effectively. Chapter four shows Fire Incident Command Management in which operations on fire incident take place by different teams for operationalization and managerial approaches.

# I. INTRODUCTION

## 1.1. Overview

The Government of Rwanda is committed to protect Citizens and prevent fire incidents whenever possible. Fires are common in industries, congested human settlements, learning institutions, hospitals, churches and markets places. Therefore it calls for preparedness and management of fire Disaster and for the intensification of sensitization and public awareness.

The contingency plan for fire incidents is one of the tools that Rwanda has adopted to minimize the losses of lives, assets, and properties on Rwanda territory. This contingency plan will ensure a mutual understanding between institutions in charge of commands and controls on procedures, protocols, response actions and provide clear lines of coordination. This ensures that all of the plans will function concurrently in efficient manner, in any case of fire incidents.

## 1.2. Scope

The National contingency plan for Fire covers all types of fires throughout the country and will be operational within the context of international disaster management conventions enacted by Rwanda such as Hyogo Framework for Action, Regional agreements. It will be activated during all fire incidents which need interventions. The preparation of the National contingency plan for Fire requires that a specific operation addresses several key elements associated with managing an emergency response to fire incidents

## 1.3. Objectives

- i. To respond quickly to fire incident calls.
- ii. To efficiently attend to rescue victims, and save assets, properties and other infrastructures
- iii. To conduct fire incident investigation, report and make records.
- iv. Saving lives and reducing suffering in times of crises
- v. Building efficient partnerships for emergency management and ensuring these are properly coordinated
- vi. Advocating for political support and consistent resources for fire disaster preparedness, response, and recovery

- vii. Developing evidence based guidance for all phases of emergency
- viii. Strengthening capacity and resilience of community, personnel and country to mitigate and manage fire disasters.

## **1.4. Legal provisions**

In line with the Law n° 22/2002 of 09/07/2002 on General Statutes for Rwanda Public Service in Articles One, 3 and 15; establishing the Ministry in Charge of Emergency Management (MINEMA) Fire & Rescue Brigade of Rwanda Police has its origin from the Law n° 09/2000 of 16/06/2000 establishing Rwanda National Police with its attributions.

## **1.5. Code of conduct**

The code of conduct in Disaster Management is defined by the National Disaster Management Policy and seeks to guard the standards of behavior among the different stakeholders. It aims to maintain a high standard of independence and effectiveness to which the Government of Rwanda aspires. The National Contingency plan for Fire provides the following code of conduct for all stakeholders:

- Disaster response interventions are based on facts and verifiable information;
  - The humanitarian imperative is respected;
  - Fire Response & Recovery services are given in line with laws & regulations in Rwanda & international conventions
  - Fire & rescue services must strive to reduce future vulnerabilities to fire disaster
  - Stakeholders will reinforce the capacity of the citizens to manage the fire management cycle;
  - Involvement of beneficiaries in fire Management Programs should be ensured;
  - All the people are treated equally in case of fire incident,
  - Mainstreaming Human Rights Based approach;
- Integrating Environmental Concerns

## **1.6. Review and updating of the plan**

This contingency plan will be reviewed every two years. In case of a major fire disaster has occurred within the period, a special review and updating will have to be undertaken to allow adjustment to the planning assumptions, caseloads and the actual sectorial response plans.

## **1.7. Guiding Principles**

Emergency response and recovery for fire incidents arrangements should be flexible and tailored to reflect circumstances, but will follow a common set of underpinning principles. These principles guide the response and recovery effort at all levels of fire incidents from local to national level. The following 8 guiding principles are listed below:

### ***1.7.1. Anticipation***

Ongoing fire risk identification and analysis is essential to the anticipation and management of the direct, indirect and interdependent consequences of emergencies

### ***1.7.2. Preparedness***

All organizations and individuals that might have a role to play in fire emergency response and recovery should be properly prepared and be clear about their roles and responsibilities.

### ***1.7.3. Subsidiarity***

Decisions should be taken at the lowest appropriate level, with co-ordination at the highest necessary level to mobilize fire emergency budget to be used for that purpose with no delays of tender procedures. All agencies are the building blocks of the response to and recovery from an emergency of any scale. Clarity of purpose comes from a strategic aim and supporting objectives that are agreed, understood and sustained by all involved. This will enable the prioritization and focus of the response and recovery effort.

#### ***1.7.4. Information***

Information is critical to fire emergency response and recovery and the collation, assessment, verification and dissemination of information must be underpinned by appropriate information management systems. These systems need to support single and multi-agency decision making and the external provision of information that will allow members of the public to make informed decisions to ensure their safety.

#### ***1.7.5. Integration***

Effective co-ordination should be exercised between and within organizations and levels (i.e. local and national) in order to produce a coherent, integrated effort.

#### ***1.7.6. Co-operation***

Flexibility and effectiveness depends on positive engagement and information sharing between all agencies and at all levels.

#### ***1.7.7. Continuity***

Fire emergency response and recovery should be grounded in the existing functions of organizations and familiar ways of working, although on a larger scale, to a faster speed and in more testing circumstances.

## II. FIRE RISKS PROFILE IN RWANDA

### 2.1. Situational Analysis

Rwanda is a country with fast growing economy which involves infrastructure development. Its cities and towns are gradually expanding with city dwellers of 881,445 in largest cities and 8,169,341 in rural areas. This demographic figures lead to an increase of fire risks as more houses are constructed and a growing number of populations without adequate knowledge about fire safety measures, laws and regulations.

Rapid urbanization and growing city centers such as Kigali present the rise of commercial growth centers where huge commercial buildings, trade centers and major private and public infrastructures have been established. This growth naturally brings in population and settlement congestion in major growth areas.

While these are good indicators of a growing and booming economy and therefore highly beneficial to the Rwanda population, these also results to high exposure to fire hazards and increasing vulnerability. Initial assessments and analysis of capacities for fire prevention and fire safety management indicated a relatively low capacity i.e. firefighting equipment and personnel only able to respond to small fire incidences.

Inspections and assessments conducted revealed that most public and private buildings and houses are not equipped with fire safety equipment (extinguishers, smoke detectors, gas leak detectors, etc.); the public is not aware of laws and regulations related to fire safety management; little has been done to sensitize the population on fire safety related matters; and Building codes are not sufficiently respected and building regulations i.e. fire safety regulations are not fully reinforced. Other factors reinforcing high risk to fire hazards include: development of industries is increasing while fire safety management not respected; potential terrorism cases in neighboring countries could indicate fire safety fragility; and Methane Gas extraction poses a hazard of fire explosion with high risk of casualties and infrastructure destruction.

A number of fire incidents have been recorded over the past few years on an increasing trend. This is an indication that measures have to be taken including establishment of the national contingency plan for fire incidents that should be used as a tool to minimize the fire incident risks.

## 2.2. Fire incidents background and context in Rwanda

The typology of fire hazards in Rwanda include wild fires in forests and national parks, fire outbreak in public and private structures, industrial fires (i.e. methane gas extraction sites, industries and factories), fire outbreaks in settlements or houses, fires due to major aviation or vehicular accidents. Rwanda experienced a significant number of fires not only in its cities and rural settlements but also in its natural parks. These include the incident of a forest fire in 2009 that spread to the top of mount Muhabura in the Volcanoes National Park, consuming 150 hectares of the park. During the same year, a forest fire occurred in Nyagatare District ravaging 30 hectares of forest and farms. Earlier in 2007, another fire outbreak occurred in the Akagera National Park in the eastern part of Rwanda. This resulted to the deaths of four (4) game rangers. Wild fires and forest fires, in most cases, are caused by charcoal burning, people who throw lit cigarettes in the bush, among others.

There are also fire outbreaks in public buildings such as the one which hit the Byimana Secondary School and the Market place in Nyanza Muhanga District. The rest of the cases are fire outbreaks in houses and settlements. Over the past three years, a total of **218 fire** incidents have been recorded.

<b>Year of incident</b>	<b>No. of Fire Incidents</b>
2011	84
2012	92
2013	42
<b>TOTAL</b>	<b>218</b>

**Source:** MINEMA 2012

**Table no 1: Fire Incidents in Recent Years (2011-2013)**

District	Deaths	Injured	Houses	Crops Ha	Livestock	Classrooms	Churches	Admin Offices
Bugesera	0	0	0	5	0	2	0	0
Burera	0	0	1	1	0	0	0	0
Gakenke	0	0	3	0	0	0	0	0
Gasabo	1	7	3	0	0	1	0	1
Gatsibo	0	0	0	3	0	0	0	0
Gicumbi	1	0	2	3	0	0	0	0
Gisagara	0	0	2	0	0	0	0	0
Karongi	0	0	1	0	0	0	0	0
Kayonza	0	0	2	2	0	0	0	0
Kicukiro	1	0	10	0	0	0	1	0
Kirehe	0	0	4	0	0	0	0	0
Muhanga	0	0	1	12	0	0	0	0
Musanze	0	0	2	0	0	0	0	0
Ngoma	0	0	3	0	0	0	0	0
Ngororero	0	0	1	0	0	0	0	0
Nyabihu	0	0	3	0	0	0	0	0
Nyagatare	0	0	1	12	0	0	0	0
Nyamagabe	0	0	3	0	0	0	0	0
Nyamasheke	1	2	11	1	3	7	0	0
Nyanza	0	19	0	0	0	6	0	0
Nyarugenge	0	3	1	0	0	0	0	1
Rubavu	0	0	8	0	0	2	0	0
Ruhango	0	0	2	19	0	0	0	0
Rulindo	0	0	3	0	0	0	0	0

Rusizi	1	5	14	6	0	0	0	0
Rutsiro	0	0	4	0	0	0	0	0
Rwamagana	0	0	1	0	0	0	0	0
<b>TOTAL</b>	<b>5</b>	<b>36</b>	<b>86</b>	<b>64</b>	<b>3</b>	<b>18</b>	<b>1</b>	<b>2</b>

**Source:** MINEMA 2019

Major and common causes of fires which occurred in Rwanda include Arson (intentional burning or due to recklessness), poor electrical installations; short circuits, glutted use of electrical equipment (excess voltage); mishandling of dangerous and flammable substances like petrol, lanterns, candles, and matches; and even the proliferation of counterfeit electrical equipment and materials used in houses. The increasing number of fire triggers due to the rapid urban expansion such as petrol depots and stations, huge kitchens in commercial buildings, low compliance to fire safety regulations and the general lack of awareness on fire hazards, fire safety and management, among others has significantly increased the risks to fires in Rwanda.

### **2.3. The Fire Control and Rescue Capacities of Rwanda**

Rwanda has its Fire and Rescue Brigade under the Rwanda National Police. It was established through the Law n° 09/2000 of 16/06/2000 establishing the Rwanda National Police with its attributions. The Fire & Rescue Brigade is one of the Rwanda National Police units operating under the Department of Operation and Public Order. Its headquarters is located in Kigali City. It has trained personnel at basic level. The Unit is also equipped with modern fire and rescue trucks which are available for operations and response to any fire outbreaks countrywide. Moreover, Fire & Rescue Brigade of Rwanda Police is responsible for conducting fire safety program countrywide and inspections for emergency fire installation system based on current building regulations. It is also responsible to promote public fire awareness and provide training.

### **III. FIRE INCIDENTS SCENARIO DEVELOPMENT**

With due consideration of the fire risks profile of Rwanda and its fire safety management and rescue capacities, this national contingency plan for fire have considered three (3) fire incident scenarios. These scenarios will serve as the basis and guide for developing the corresponding emergency response coordination and contingencies for fire control to avert further damage and/or casualties and provide immediate relief and assistance for affected population.

Each of the scenarios provides a detailed description of the fire incident. The scenarios are particularly suited to examine conditions and events including the components such as triggers, ignition, fire spread and smoke production, etc. including immediate impacts.

The scenario analysis used for this plan is of two levels: base case and worst case. The base case represent minor impacts and damages while the worst case presents massive destruction, huge impacts and of larger scale and areas of impact. The base case scenarios will be approximately commensurate to the existing response capacities. The worst case scenarios, on the other hand, will capture and describe impacts beyond the current response capacities of Rwanda, therefore will become the basis for strategies to enhance and improve on such capacities. It is necessary to indicate and describe the worst case to allow for forward planning and capacity development.

#### **3.1. General Scenario Objectives**

The main objective of this scenario is to enable a better understanding of the behavior of a given fire to anticipate fire behaviors and plan response capacity.

The objectives are:

- To achieve a catalogue of reconstructed large fires based on propagation patterns;
- To understand common propagation patterns in a particular zone, due to constant interaction between a fixed orography and common weather types;
- To anticipate large wildfire behaviors in a forest area, and also locate, agree and learn on the opportunities to fight it;

- To provide skills for analyzing different indicators of fire behaviors and to consider every past and new fires as an opportunity to learn from them. It has three main functionalities:
  - To anticipate fire behavior;
  - To transmit, share and learn from experience and the analysis
  - To pre-plan operations to manage actual fire incidents as per scenario

### 3.2. Plausible Scenarios of Fire Incidents

This Contingency Plan considered three (3) fire outbreak scenarios:

- (1) an airplane misses landing field and run into residential populated area;
- (2) Wild fire in Akagera National Park; and
- (3) Fire in a Commercial Area - Nyarugenge Market.

#### ***Scenario 1: An airplane misses landing field and run into residential populated area***

The Kigali International Airport is located in Remera in the midst of both residential and growing commercial area. One nearby community, the Alpha Palace area, is a residential area with approximately **370** houses and a population of about **1,850**. The area is also comprised of a road network with approximately **80** (of different types) which either traverse or park on these roads. There are also petrol stations located nearby with approximately **70** workers, staff, customers, bystanders and commuters passing at a time.

The Kigali International Airport accommodates and manages air traffic for a total of (indicate no. of aircrafts/ **49** flights per day landing and taking off. Assuming on *D-day*, an Aircraft Boeing 747 carrying 250 passengers misses landing field and crashed into the nearby community (Former Alpha Palace area).

#### ***Base Case Analysis:***

Upon impact, the Aircraft caught fire and hit few houses. There are few houses and structures near the burning units and the Aircraft, however, it is at a distance which when the existing fire is contained, it is less likely to spread. There were obvious deaths and injuries in both the aircraft and the affected houses. No vehicles were affected and petrol stations are at distant therefore unlikely to catch fire or explosions. Electricity in the Remera Zone was cutoff and there is slight traffic jams on streets around the impact area.

#### ***Worst Case Analysis:***

Upon impact, the aircraft caught fire and spread to some houses in the area. Some vehicles parked on the roads also caught fire and nearby petrol stations are likely to catch fire if the outbreak remained uncontrolled and not contained in the next 30 minutes. The immediate impacts include deaths and injured of the 250 aircraft passengers and the affected houses in the areas with possible survivors suffering from trauma and smoke inhalations, deaths and injuries from the burned houses and vehicles. Approximately a total of **3,700 persons** located around the impact site needing rescue, evacuation, first aid and emergency medical evacuation. There was a total electricity cut-off for the entire Remera Zone and roads from and to the impact site are jammed and traffic is either halted or very slow.

#### ***Scenario 2: Wild fire in Akagera National Park***

Akagera National Park is one of the several natural parks in Rwanda. It is located in the north eastern part of the country. Its central coordinates is 30° 38' East 1° 45'. The park covers over 2,500 sq. km of savannah combined with the rolling hills of Acacia and Brachystegia Woodland and swamp-fringed lakes along the meandering Akagera watercourse. The park is a natural habitat for a variety of wildlife and different birds' species. This natural make-up of the park increases its susceptibility to fire hazards especially during the dry season. It has also houses with regular tourist visitors who normally take accommodation in the park facilities in Gabiro, around 100 km (60 miles) to the north. Around its perimeter is vast agricultural lands cultivated with various crops by local residents. On a hot sunny day, a fire broke out in one of the bushy areas of the Park. Due to the dry season the fire spreads very rapidly into the savannah and very likely to encroach the woodland areas of the park if left un-averted within the next few hours. On the edge of the park at Gabiro, 100km (60 miles) to the north. In AKagera National Park being destroyed by wild fires that broke out two days ago, 23 hectars catch fire and over 219 animals flit far away from the national park. The situation is very catastrophic and its need to be resolved in shortest moment. Fresh crops have been damaged and over 28,181,888 Rwandan francs were expected to come from the harvest. Helicopters and other necessary materials to put off fire were far located like fire extinguishers and heavy machines used to put off fire were at least from 123 kilometers from fire incident.

#### ***Base Case Analysis:***

Upon impact: Wild fire in Akagera National Park caught fire and hit few hectars around 23 of hectars caught fire including woods and savannah. Over 219 animals flit far away from the national park. The situation is being very catastrophic and it's needed to be resolved in shortest moment. Fresh crops have been damaged and over 28,181,888 Rwandan francs were expected from the harvest in that season.

Helicopters and other necessary materials to put off fire were far located like fire extinguishers and heavy machines used to put off fire were at least from 123 kilometers from fire incident. 9 cottages, 3 offices and 12 houses of the park workers have been affected at the moment. One thousand six hundred (1,600) animals fleet the park due to disturbance of their zoo. 150 tourists, 28 workers, and 34 tourist guides affected by fire incident, about 1,200 persons have been affected and fleet their residential places, 278 farmers went far away from the park and will never come back at the nearest the park.

***Worst Case Analysis:***

The special effects during the fire incident in Akagera National Park is being high where over 46 hectors of the surface of Akagera national park has been affected a long 120 sqkm of the area are being affected within Akagera National Park. Twenty one (21) Cottages, 6 offices and 23 houses of the park workers have been affected at the same time. Approximately 3,200 animals fleet the park due to disturbance of their zoological area during the fire incident, 230 tourists, 58 workers, and 64 tourist guides have been affected hence, 2,400 persons have been affected and fleet their residential places, 358 farmers went far away from the park. The situation is very critical and it may need quick resolution.

**Scenario 3: Fire in a Commercial Area - Nyarugenge Market**

In Kigali-City commercial area called Cartier Mathieu's in Town, located in Nyarugenge District there is a fire outbreak which caused serious damages from different Items and materials surrounding Nyarugenge market, over 2,500 business man who were inside market died, 120 vehicles on roads and street caught fire, 30 vehicles around the petrol stations burned, 76 people surrounding Nyarugenge market died, and 5 Banks working within the market catch fire, over 248 peoples have been injured, and two surrounding petrol stations exploded. The traffic jam caused by fire incident lasted 48 hours. Near commercial banks and surrounded by big commercial buildings and medium and small businesses where the area per day around 1,500 people are present and doing businesses around the Nyarugenge. Market in the other side, the surrounding commercial building have almost 2,100 people, working around who have been affected by the effects of fire incident caught Nyarugenge Market and its environment. At that time there was a big number of parked vehicles and trucks about 180 vehicles which caught fire. This caused traffic jam about 120 moving vehicles delayed at least 2 days due to traffic jam which became very big and Spontaneously. The Road need to be unlocked as soon as possible for normal local circulations and it needs quick solutions.

**Base Case Analysis:**

The effects of the fire incident in Nyarugenge Market was largely impacted a numeral of people nearest the market and other commercial buildings where 45 people report deaths, 80 vehicles on roads and street caught fire, 30 vehicles around the petrol stations burned, 76 people surrounding Nyarugenge market died, and 5 Banks working within the market catch fire, over 120 peoples have been injured, and two surrounding petrol stations exploded. Thereafter, 48 floors were burnt immediately approximately the total costs of the burnt goods and infrastructure was around 824, 238,194 Rwf, 30 vehicles parked around caught fire. The situation needs to be resolved as soon as possible and allow the normal working conditions.

**Worst Case Analysis:**

The Impact of fire incident in Nyarugenge Market was very high as states in the potential data got from fire field assessment where 500 business man who were inside market died, 120 vehicles on roads and street caught fire, 30 vehicles around the petrol stations burned, 102 people surrounding Nyarugenge market died, and 5 Banks working within the market catch fire, over 248 peoples have been injured, and two surrounding petrol stations exploded. Many floors were burnt around 98 floors burnt and nothing was saved.

The total costs of the burnt goods and infrastructure was 234,521,894, 640 Rwf and 56 vehicles parked around caught fire over 23 surrounding buildings caught fire and needs to be stopped to save people's life and their properties.

## **IV. FIRE RESPONSE PLAN, PREVENTION AND MITIGATION MEASURES**

This Chapter contains the response, prevention and mitigation measures which need to be undertaken in order to manage, cope with fire incidents, and ensure safety of populations and properties including prevention and avoidance of fire outbreaks. The response plan will identify immediate actions to be undertaken to provide immediate response and fire control interventions to impact areas. The response plan will be developed per scenario. The emergency response plan for each scenario is designed in such a manner that it remains fully applicable and useful for fire incidents and outbreaks happening in other areas (other than the one indicated in the scenario but of similar nature and intensity).

The response plan will largely make specific reference to Chapter 5 of this Contingency Plan specifically on the Fire Incident Command and Emergency Response Coordination section i.e. the Incident Command System (ICS) which will be activated as soon as fire outbreaks are declared or reported.

The ensuing sections will comprise the short-term and long-term prevention and mitigation measures which need to be undertaken to further enhance and improve the capacities of the national and local authorities specifically that of the Fire and Rescue Brigade of the Rwanda National Police. The fire prevention and mitigation measures will particularly address key gaps and issues as stipulated in the capacity, gap and situational analysis and the general fire risk profile of Rwanda.





	<ul style="list-style-type: none"> <li>- The immediate dispatch of the Communications Team together with the Emergency Response Contingent to ensure coordination of media relations and keeping the public and authorities informed of the situation evolving due to the fire emergency.</li> </ul> <ol style="list-style-type: none"> <li>4. As soon as “fire-off” has been declared, dispatch impact site of the Assessment and Recovery Team should immediately follow to undertake a rapid assessment of the impact and damages. Subsequent rapid assessment reports should be prepared.</li> <li>5. Provision of relief and other assistance will ensue for the evacuees in evacuation centers.</li> <li>6. Recovery planning will follow immediately after the emergency status.</li> </ol>	<p>Media relations Unit of MINEMA, RNP, RDF</p> <p>MINEMA, RNP, RDF and the Assessment Team of the NPDRR</p> <p>MINEMA</p> <p>MINEMA, MININFRA, and other relevant stakeholders</p>	<p>Fire trucks, extinguishers</p> <p>-</p>	
<p><b>Scenario 2: Wild fire in Akagera National Park</b></p>	<ol style="list-style-type: none"> <li>1. Activation of the Incident Command System, operations.</li> </ol> <ul style="list-style-type: none"> <li>- Incident Commander take responsibility, control and management of the Emergency Response Command and Coordination</li> </ul> <ol style="list-style-type: none"> <li>2. Incident Commander ensures the deployment of the Fire Emergency Response Teams on impact sites, as follows:</li> </ol> <ul style="list-style-type: none"> <li>- Dispatch at least <b>5</b> Fire Control Teams (in fully</li> </ul>	<p>RNP</p> <p>RNP</p>	<p>Equipped Incident Command Center</p> <p>Staff support for the ICS</p> <p>5 or more Fire Trucks</p> <p>Skilled and trained Staff of</p>	

	<p>equipped Fire Trucks) to put fire off the Wild fire in Akagera National Park, the burning guides houses and tourists found in Akagera National Park so as not to spread to the whole Akagera National Park. Additional Fire Control Team and Fire Trucks should be available as a contingency should fire further spreads.</p> <ul style="list-style-type: none"> <li>- The Fire &amp; Rescue Control Team will be first</li> <li>- to dispatch to the impact site given the proximity</li> <li>- Deployment of a composite security teams to secure the perimeter of the impact site, crowd control, secure public and critical installations near the impact site, and secure the populations around the impact site.</li> <li>- Dispatch of the search, rescue and evacuate on team to the impact site to initiate rescue and evacuation of people around the adjacent areas</li> </ul> <p><b>2. Deployment of the damage assessment and recovery teams, as follows:</b></p> <ul style="list-style-type: none"> <li>- The emergency supplies/relief management team to ensure adequate pre-positioned supplies in the evacuation centers</li> <li>- The immediate dispatch of the Communications Team together with the Emergency Response Contingent to ensure coordination of media relations and keeping the public and authorities</li> </ul>	<p>MINEMA, MoH, RRC, RNP, RDF</p> <p>Media relations U MINEMA, RNP, RDF</p>	<p>fire &amp; Rescue brigade</p> <p>Fire &amp; Rescues control team well trained and equip</p> <p>Skilled, knowledge and equipped people</p> <p>Media &amp; IEC equipment</p>	
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	<p>informed of the situation evolving due to the fire emergency</p> <p><b>4.</b> As soon has been put-off “Fire-off” declared, dispatch to impact site of the Assessment and Recovery Team should immediately follow to undertake a rapid assessment of the impact and damages. Subsequent rapid assessment reports should be prepared.</p> <p><b>5.</b> Provision of relief and other assistance will ensue for the evacuees in evacuation centers.</p> <p><b>6.</b> Recovery planning will follow immediately after the emergency status.</p>	<p>MINEMA, RNP, and the Assessment Team of the NPD</p> <p>MINEMA</p> <p>MINEMA, MININFRA, RDB and other relevant stakeholders</p>	<p>Knowledge &amp; Qualified sta</p> <p>-</p>	
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	<p><b>3.</b> Deployment of the damage assessment and recovery teams, as follows:</p> <ul style="list-style-type: none"> <li>- The immediate dispatch of the Communications Team together with the Emergency Response Contingent to ensure coordination of media relations and keeping the public and authorities informed of the situation evolving due to the fire emergency.</li> </ul> <p><b>4.</b> As soon has been put-off “Fire-off” declared, dispatch to impact site of the Assessment and Recovery Team should immediately follow to undertake a rapid assessment of the immediate impact and damages. Subsequent rapid assessment reports should be prepared and available in order to take quick reactions accordingly.</p> <p><b>5.</b> Provision of relief and other assistance will ensure for the evacuees in evacuation centers.</p> <p><b>6.</b> Recovery planning will follow immediately after the emergency situation.</p>	<p>MINEMA, MoH, RRC,RNP,RDF Media relations Unit of MINEMA, RNP, RDF</p> <p>MINEMA,RNP, RDF and the Assessment Team of the NPD</p> <p>MINEMA</p> <p>MINEMA, MININFRA, Kigali- City and other relevant stakeholders</p>	<p>Skilled and Competent Staff</p> <p>Appropriate equipment</p> <p>Knowledgeable, skilled &amp; Qualified staff</p> <p>Budget availability</p>	
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## 4.2. FIRE PREVENTION & MITIGATION MEASURES

In this section, fire prevention and mitigation measures will be given in details for further tasking and responsiveness of the relevant people to react on the fire incident.

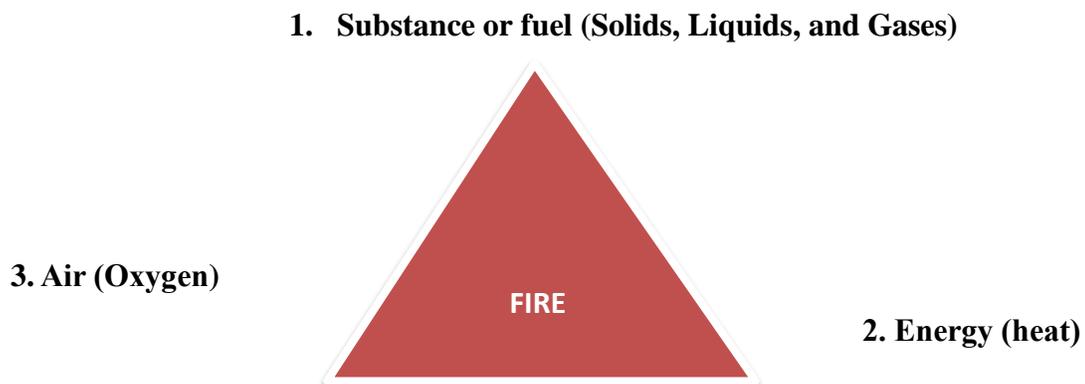
### 4.2.1. *Process for fire incident and exercise*

Fire incident is an unplanned or undesired event that adversely affects a large area of operation or working place. Fire Incidents include work-related injuries, public and private assets, property damage, spills, fires etc.

All Fire Incidents should be investigated before if possible, and quick intervention to prevent for population and being more prepared and respond to the fire incidents. Fire incidents that results in a serious impact, or spill obviously warrants an extensive investigation.

### 4.2.2. *Three elements for fire outbreak process*

**Fig1. Fire outbreak process**



The cause of fires is often a result of human action bringing fuel and an ignition source together (e.g., waste paper stored next to heating equipment or volatile flammable liquids being used near open flames). Fires require fuel, an ignition source and some mechanism to bring the fuel and ignition source together in the presence of air or some other oxidizer.

**Table No. 3: PREVENTION & MITIGATION STRATEGIES: SHORT-TERM MEASURES**

N°	ITEM	CURRENT SITUATION	MEASURES	RESPONSIBLE INSTITUTIONS	TIME FRAME
1	<b>BUILDINGS AND OTHER PUBLIC PLACES</b>	<p>1) The majority of buildings lack firefighting and fire preventing equipment and adequate fire safety facilities</p> <p>2) No regular inspection conducted on firefighting equipment installed in buildings</p>	<ul style="list-style-type: none"> <li>• To organize a task force to conduct an urgent Fire Safety inspection on all public &amp; private buildings &amp; public places.</li> <li>• Fire Safety task force shall learn from the inspection experience from CoK teams</li> <li>• The methodology used in the city of Kigali is to be duplicated in provinces</li> <li>• Local Government officials shall be involved</li> </ul>	<p>RHA in collaboration with RBS,RURA and RNP should elaborate a fire safety check list</p> <p>The Fire Safety task force at the level of KIGALI CITY to be formed by staff from: RNP, RHA, COK, RBS, REG, RURA, MINADEF, NISS, MINALOC, MINEMA</p> <p>Sub-forces at Districts' level to be composed of: RNP/Fire Brigade &amp; Rescue decentralized, Vice Mayor in charge of economic affairs, MINADEF ,NISS, Infrastructure agent.</p> <p>Task forces to submit reports</p> <p>Owners to comply with reports</p> <p>Enforcement of lack of compliance to be done by Districts' authorities</p>	<p>Every six months</p> <p>Every six months</p>
		<p>3) The majority of buildings have very old or poor</p>	<ul style="list-style-type: none"> <li>• Verification of all electrical installations and firefighting</li> </ul>	<p>Registration of installers by RURA</p>	

		<p>electrical installations</p> <p>4) Informal working of electrical practitioners</p>	<p>equipment for public buildings and submission of reports</p> <ul style="list-style-type: none"> <li>• Certification of installers by competent authorities</li> </ul>		
		<p>5) Lack of tests and Inspection before connection of buildings to electricity supply</p>	<ul style="list-style-type: none"> <li>• Mandatory testing before connecting new facilities to the main electricity supply</li> </ul>	<p>Training of installers on standards' requirements by REG and RBS</p> <p>Inspection of electrical installations in new public buildings by REG and Districts</p> <p>Enforcement of lack of compliance to be done by Districts' authorities</p>	<p>Every six months (Simulation exercise)</p> <p>Every six months,</p>
2	<b>TRANSPORTATION AND STORAGE OF DANGEROUS GOODS</b>	<p>1) In general, there are minimum fire safety precautions.</p>	<ul style="list-style-type: none"> <li>• Identification of transporters and proper caution sign posting on storage facilities and transportation vehicles</li> <li>• Transporters to possess at least basic firefighting equipment appropriate to substances</li> <li>• Emergency training for customs' personnel</li> </ul>	<p>RURA to register transporters</p> <p>RURA in collaboration with RNP, MINADEF and RBS to ensure the implementation of proper hazardous postings</p> <p>RNP to verify compliance with fire safety regulations for transporters RNP and RURA to train customs' Personnel. Inspections of all warehouses with</p>	<p>All the time</p>

			<ul style="list-style-type: none"> <li>• Provision of Fire Safety Equipment at main entrance boarders, airports and ports.</li> <li>• Fire Safety Inspection for warehouses and separation of substances by categories during storage</li> <li>• Mandatory acquisition of firefighting equipment for all petrol stations</li> <li>• Separate Petrol stations from other businesses for safety</li> </ul>	<p>regards to fire safety by RNP and RBS</p> <p>Inspections of all petrol stations with regards to fire safety by RNP, RBS, RURA and Districts</p> <p>RNP and Districts to recommend separation measures after inspections</p>	
3	<b>ELECTRICAL MATERIALS INSPECTION</b>	<ol style="list-style-type: none"> <li>1) Sub standards materials on local markets</li> <li>2) Noncompliance of the standard on installations</li> <li>3) Old wiring and obsolete equipment in buildings</li> </ol>	<ul style="list-style-type: none"> <li>• Checking the quality of materials and remove substandard materials from local markets</li> <li>• Registration of importers and traders of electrical materials</li> <li>• Cross-checking the quality of materials used by REG /partners/contractors against standards</li> </ul>	<p>RBS, RNP and Districts to ensure removal of substandard materials from local markets</p> <p>RBS to register importers and traders of electrical materials</p> <p>RBS and REG to verify quality of materials used by REG and its partners</p>	

4	<b>FIRE BRIGADE REINFORCEMENT</b>	<p>1) Fire &amp; Rescue Brigade is currently mainly operational in CITY of KIGALI</p> <p>2) It has limited intervention capacity</p>	<ul style="list-style-type: none"> <li>• Extension of fire &amp; Rescue services in provinces and Districts as stipulated by Ministerial instructions on fire safety management in Rwanda</li> <li>• Involvement of local authorities in improving fire services</li> </ul>	<p>RNP to outline plan for decentralization of Fire brigade</p> <p>Local Government authorities to purchase firefighting equipment for their respective Districts</p>	
5	<b>TRAINING AND AWARENESS CAMPAIGN</b>	<p>1) Overall lack of skills on fire safety management,</p> <p>2) Low level of awareness on fire safety management across all sections of the population</p> <p>3) Government employees lack awareness with regards to Fire issues</p> <p>4) Noncompliance to fire regulations by building owners due to lack of fire safety education</p>	<ul style="list-style-type: none"> <li>• Public institutions and Private Companies should organize the training of their personnel.</li> <li>• Fire safety awareness materials to be availed in Public &amp; Private institutions</li> <li>• Fire drills to be conducted regularly in public buildings</li> <li>• Sensitize on fire safety management, the benefits of having fire safety equipment such as smoke detectors, fire alarms and fire extinguishers in buildings. The campaign could be</li> </ul>	<p>Training of all Civil Servants by MIFOTRA, RNP, MINEMA and RHA in collaboration with individual institutions</p> <p>RNP, MINEMA and RHA shall elaborate leaflets and other fire safety awareness materials to be given to Government Institutions</p> <p>MINALOC, MINEMA, RHA and RNP to prepare modules and overall strategy for a fire safety national awareness campaign MINALOC, MINEMA, RHA and RNP shall conduct a nationwide sensitization campaign on fire safety best practices and regulations.</p>	

			<p>done through:</p> <ul style="list-style-type: none"> <li>• Regular Radio and TV programs,</li> <li>• Publicity spots on radios and television;</li> <li>• Brochures distributed to a large number of the population (schools, military camps, markets, churches, districts...</li> <li>• Bill boards in urban areas</li> <li>• Community works and dialogues</li> <li>• Educational institutions</li> <li>• Associations and cooperatives</li> </ul>		
6	<b>WILD FIRES</b>	Forests and national parks are exposed to fire outbreaks. To date there are little measures for their protection	<ul style="list-style-type: none"> <li>• To draw response measures for firefighting at a large scale and evacuation procedures</li> <li>• To provide adequate firefighting equipment appropriate to combating wildfires</li> <li>• To provide caution signs at appropriate locations and players by the entrance and exits of forests and National Parks.</li> </ul>	<p>RNRA, RDB, RNP, MINADEF and REMA shall elaborate immediate response measures in case of wild fires</p> <p>RNP shall avail firefighting equipment and specially trained personnel responsible for intervention in case of wild Fires</p> <p>RNP, RNRA, MINEMA and RDB shall initiate a national sensitization campaign on this issue.</p>	

Table no 4: LONG-TERM MEASURES

N°	ITEM	CURRENT SITUATION	MEASURES	ACTION PLAN AND INSTITUTION RESPONSIBL	TIME FRAME
1	<b>BUILDINGS AND OTHER PUBLIC PLACES</b>	<p>1) The majority of buildings lack firefighting and fire preventing equipment and adequate fire safety facilities</p> <p>2) The majority of buildings have very old or poor electrical installations</p> <p>3) No regular inspection conducted on firefighting equipment installed in buildings</p> <p>4) Lack of tests and Inspection before connection of buildings to electricity supply</p> <p>5) Informal working of electrical practitioners</p>	<ul style="list-style-type: none"> <li>• Elaboration and approval of comprehensive fire safety regulations</li> <li>• Elaboration of comprehensive building construction regulations</li> <li>• Elaboration of fire safety standards</li> <li>• All new and existing buildings and other public structures shall comply with approved laws and regulations in force in Rwanda</li> <li>• Completion and implementation of all Master Plans, Local Development Plans and Specific Development Plans</li> <li>• Have public buildings and other public places</li> </ul>	<p>RHA to elaborate the “Rwanda Building Fire Safety Code”</p> <p>RHA to elaborate the “ Rwanda Building Code”</p> <p>RBS should elaborate all required fire safety standards</p> <p>RURA to elaborate all utility’s regulations related to fire safety</p> <p>To have all Urban and Regional Planning Tools approved and implemented</p> <p>All concerned institutions to ensure enforcement of laws, regulations and standards</p>	

			managed by professional estate managers		
2	<b>TRANSPORTATION AND STORAGE OF DANGEROUS GOODS</b>	1) In general, there are minimum fire safety precautions.	<ul style="list-style-type: none"> <li>• Elaboration and approval of comprehensive regulations governing the transportation, storage and use of dangerous goods in Rwanda</li> <li>• To put in place implementation mechanisms of approved regulations</li> </ul>	<p>RURA to elaborate regulations governing the transportation, storage and use of dangerous goods</p> <p>RBS to elaborate all required standards related to dangerous goods</p> <p>RHA to elaborate construction standards and appropriate regulations for facilities used for the storage of dangerous goods</p> <p>All concerned institutions to ensure enforcement of related laws, regulations and standards in force in Rwanda</p>	

3	<b>ELECTICAL MATERIALS INSPECTION</b>	<p>2) Sub standards materials on local markets</p> <p>3) Non-compliance of the regulations on installations</p> <p>4) Old wiring and obsolete equipment in buildings</p>	<ul style="list-style-type: none"> <li>• Implementation of all related standards elaborated by RBS</li> <li>• Implementation of existing Electrical regulations elaborated by RURA</li> <li>• Regular inspections of electrical installations as detailed by Ministerial instructions (MININFRA)</li> </ul>	<p>RBS shall elaborate all required standards related to electrical materials in Rwanda</p> <p>RURA shall give a detailed plan of implementation for existing electrical installation regulations</p> <p>All concerned institutions to ensure enforcement of related regulations and standards in force in Rwanda</p>	
4	<b>FIRE BRIGADE REINFORCEMENT</b>	<p>1) Fire &amp; Rescue Brigade is currently mainly operational in City of Kigali</p> <p>2) It has limited intervention capacity</p> <p>3) It is extended in view of recent events</p>	<ul style="list-style-type: none"> <li>• Adequate presence of fire &amp; Rescue services in provinces and Districts.</li> <li>• Involvement of local authorities in improving services in their Districts</li> <li>• Purchasing of all required firefighting equipment for the proper functioning of the brigades</li> <li>• Installation of Public</li> </ul>	<p>RNP to outline a long-term plan for decentralization of Fire brigade</p> <p>Local Government authorities to have firefighting equipment for their respective Districts for the long term</p> <p>Kigali and Districts' council to initiate plans to provide Public fire hydrants in cities, towns and rural areas</p> <p>Have Fire Hydrants available</p>	

			fire hydrants in cities and towns	in all cities, towns and rural areas	
5	<b>TRAINING AND AWARENESS CAMPAIGN</b>	<ol style="list-style-type: none"> <li>1) Overall lack of skills on fire safety management,</li> <li>2) Low level of awareness on fire safety management across all sections of the population</li> <li>3) Government employees lack awareness with regards to Fire issues</li> <li>4) Noncompliance with fire regulations by building owners due to lack of fire safety education</li> <li>5) Public &amp; Private companies, individual businesses, and other Public places were shocked with fire outbreak and fire incidents. Partial response was done to those fire incidents.</li> </ol>	<ul style="list-style-type: none"> <li>• Public institutions and Private Companies should organize the training of their personnel.</li> <li>• Fire safety awareness materials to be availed in Public institutions</li> <li>• Fire drills to be conducted regularly in public buildings</li> <li>• Security companies to train their personnel with regards to fire safety issues</li> <li>• A recurrent nationwide sensitization campaign to be conducted to raise the population's awareness on fire safety</li> <li>• All public &amp; Private companies, Individual Businesses, Markets, Super Markets, Petrol stations, should have</li> </ul>	<p>Recurrent training of all Civil Servants by MIFOTRA, RNP, MINEMA and RHA in collaboration with individual institutions</p> <p>MINALOC, RHA and RNP to conduct a media sensitization campaign on fire safety best practices and regulations every two years</p> <p>Contact Itorero, and educational institutions to train young people on fire safety issues</p> <p>Fire safety education by Military and Police training schools</p> <p>Sensitization on fire insurance, RNP, MINADEF, RDB, and REMA reinforce fire insurance as prevention measures in case of fire outbreak or Fire incidents.</p>	<p>Every August of each year</p> <p>Every year</p>

			fire insurances to be more preventive in case of Fire outbreak and incident		
6	<b>WILDFIRE</b>	1) Forests and national parks are exposed to fire outbreaks. To date there are little to no measures for their protection	<ul style="list-style-type: none"> <li>• To draw response measures for firefighting at a large scale and evacuation procedures</li> <li>• To provide adequate firefighting equipment appropriate to combating wild fires</li> <li>• To provide caution signs at appropriate locations and flyers by the entrance and exits of forests and National Parks.</li> </ul>	<p>RNRA, RDB, RNP, MINADEF and REMA shall elaborate long-term response measures in case of wild fires</p> <p>RNP should avail firefighting equipment and specially trained personnel responsible for intervention in case of wild fires</p> <p>RNP to insure strict compliance with fire safety regulations aimed at preventing the eruption of fire outbreaks in the wild</p>	

## V. INSTITUTION’S ROLES AND RESPONSIBILITIES FOR FIRE PREVENTION & FIRE SAFETY MANAGEMENT

### 5.1. INTRODUCTION

As defined in the National Disaster Management Policy (NDMP) the “ lead institutions for fire incidents have the responsibility of working and fully collaborating with the MINEMA to put in place all necessary actions required to **prevent, prepare, respond and recover from the fire incidents** as well as allocating sufficient resources to achieve these goals. The overall coordination is under the Ministry in Charge of Emergency Management (MINEMA) responsibility. The lead institution is the last resort services provider and should put in place adequate mechanism in close collaboration with the MINEMA to fulfill its mandate including other responsible institutions. Table 5 below shows the different public institutions and their corresponding roles and responsibilities relative to fire incidents.

**Table 5: Public Institutions & Other Agencies Roles and Responsibilities for Fire Hazards**

<b>Responsible Institutions</b>	<b>Roles &amp; Responsibilities</b>
MINEMA	Coordinate, & Lead
RNP	Co-Lead, Emergency Operations & Response activities
RDF	Emergency Operations & Response activities
MoH	Health emergency assistance activities
MINALOC	Sensitization & immediate response; Organize meetings community works ( <i>Umuganda</i> )
MoE&RDB	Sensitization for fire in Forests & National Parks
MINEDUC	Education on fire incidents in schools
MININFRA(RHA)	Integration of fire safety into building regulations
The Private Sector	Compliance with fire regulations & laws
International Institutions, NGOs & Civil Soc	Information sharing, Sensitization, Support to Relief, Education, and Response activities
Local Governments	Sensitization & Immediate response
Community based	Immediate response & information sharing

**Table 6: Prevention activities**

<b>Activities</b>	<b>Responsible institutions</b>	<b>Support institutions</b>	<b>By when</b>
Public awareness	MINEMA, MINALOC, RNP, MINEDUC, Local Government MININFRA/RMA	Volunteer groups, Civil society, Media	Immediate & ongoing
Inspection	MINEMA, RNP	Local government RURA, REG, KIGALI-CITY, RHA	At the date of National Contingency Plan for Fire (NCPF) approval & ongoing
Simulation Exercise	MINEMA, RDF, RNP, MoH	Private Sector Federat	Before Fire incents scena
Capacity building	MINEMA, RNP	RBS	Before Fire incents scena
Early Warning System (E	MINEMA, MININFRA & RNP	REMA	Before
Recovery support	UN Agencies & NGOs	Private Sector	After assessment & respo period

**Source:** MINEMA consultation retreat 2014

## 5.2. Fire Incident Command and Emergency Response Coordination

### 5.2.1. General

The incident command System (ICS) provides a clear framework to assist the Incident Commander to organize and deploy available resources in a safe and efficient manner. It provides the IC with a ready to use organizational structure that can be adapted to fit every incident, from a one pump attendance to the largest most complex incident.

It is therefore essential that the ICS is adopted in full and becomes familiar to all personnel so that the language and concepts are fully understood in readiness for not only localized incidents, but for cross border and national incidents of varying complexity.

### 5.2.2. Incident Command Post Procedures

The Incident Command System will be developed by the National Emergency Management Agency (NEMA) that will be created to provide emergency services such as **police, fire and emergency medical services (EMS)** with a means of managing an incident and establishing cooperation and coordination of all agencies involved in an incident from the initial stages to a return to normal operations. It is the general accepted method both locally and nationwide for resolving all problems caused by fires.

### ***5.2.3. Roles & Responsibilities of the Incident Commander***

The FRS incident commander at an operational incident is the nominated competent person usually identified by wearing the IC's surcoat. This role need not invariably be fulfilled by the most senior officer present, but the senior officer does have a moral and organizational responsibility within the overall command structure that cannot be divested. This arrangement allows an officer more senior to the IC to adopt a mentoring or monitoring role.

At any incident, the Incident and/or Sector Commanders (SCs), have to set tactical priorities. The following is an example of a typical list of objectives that have to be prioritized at the structure fire.

- a.** Perform rescues and ensure medical support is called for casualties without delay.
- b.** If the building is already full involved in fire, take steps to prevent spread to exposure risks.
- c.** Contain the spread of the fire within the building or affected portions of it as soon as possible
- d.** Extinguish the fire
- e.** Commence damage control as soon as conditions and resources allow.
- f.** Commence ventilations as soon as conditions and resources allow.
- g.** Commence cutting away and investigation to ensure all cavities and voids have been covered
- h.** Consider the welfare of victims or those who have suffered loss at the earliest possible time, calling in external support as necessary.

- **Levels of Command**

There are three levels of command and control that may be brought into play at a multi-agency incident, known as bronze, silver and gold. The terms are used to describe tiers of joint, multi-agency emergency management and will normally only be utilized where a combined multi-agency response is necessary. The adoption of this national will assist to integrate plans and procedures between agencies ensuring that roles and responsibilities are understood

- **Operation**

It is the level at which command of immediate hands on or task level work is undertaken at the scene of an incident. If the incident develops with several agencies needing to work effectively together, each sector would become a bronze command in line with other agencies.

- **Tactical**

This is the level of all command on the incident ground and which ensures that the Operational levels are supported and if there are several sectors operating to insure their operations are coordinated to achieve maximum effectiveness.

- **Strategic**

This invokes where an event or situation may have significant impact on resources, probably involving a large number of agencies or has impact for an extended duration.

- **Evacuation Routine**

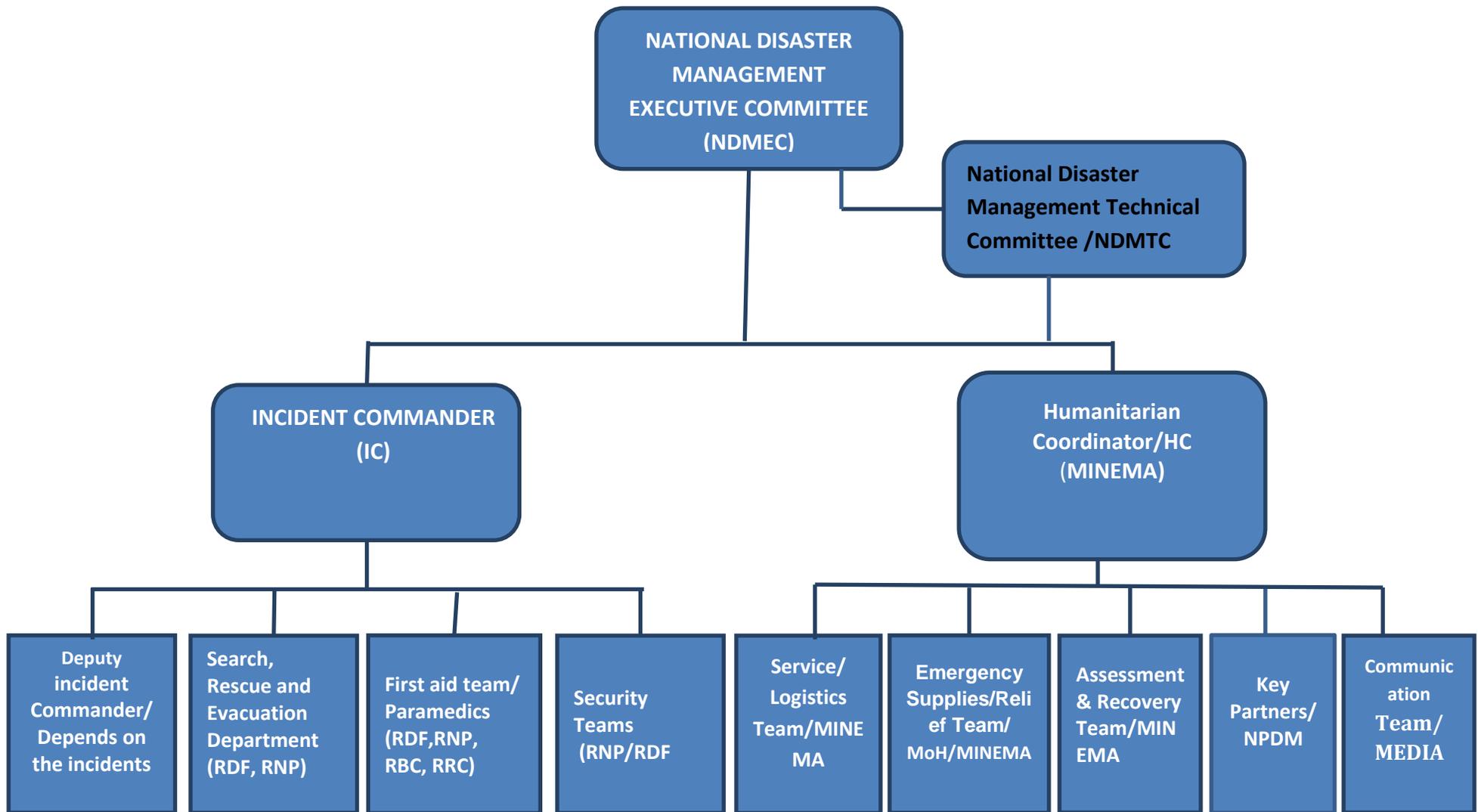
The goal of this function is to evacuate people, and move resources out of the threatened area. Depending on the emergency circumstances, evacuation of the building, site or area may require provisions for completing a number of sequential actions. All interactions among these responses must be identified, and thought out in a systematic fashion so that a proper sequence can be established to ensure that operations flow smoothly, and that no unnecessary risks occur.

#### ***5.2.4. Responsibilities of incident commander during evacuation***

- Describing conditions under which an evacuation should be ordered,
- Developing evacuation procedures for the appropriate options for various hazards.
- Identifying people responsible for ordering an evacuation
- Providing maps indicating evacuation routes from buildings within the facility
- Determine areas where different departments and personnel should report after exiting the building
- Provide for organized head count, and develop system for identifying missing persons
- Establish system that insures that vital records are evacuated

- Periodic evacuation drills to ensure that the procedure is working smoothly.

Figure 1: Incidence Command Structures



Source: Primary data 2014

The Initial Attack Fire Cycle explains the steps that are involved for a firefighting crew to assess a fire situation and complete the tasks needed to sustain and put out a fire.

**Figure 2: The Initial Attack Fire Cycle**



### 5.3. Key features of the Incident Command System

The Incident Command System satisfies four essential requirements:

- The system must be organizationally flexible to meet the needs of incidents of any kind and size.
- Fire committees must be able to use the system on a day-to-day basis for routine situations as well as for major emergencies.
- The system must be sufficiently standard to allow personnel from a variety of agencies and diverse geographic locations to rapidly meld into a common management structure.
- The system must be cost effective.

The ICS organization builds around five major functions that are required on any incident whether it is large or small:

- Incident Command
- Operations
- Planning
- Logistics
- Finance/Administration

ICS establishes lines of supervisory authority and formal reporting relationships. There is complete unity of command as each position and person within the system has a designated supervisor. Direction and supervision follows established organizational lines at all times.

#### **5.4. Duties of National Disaster Management Committee (NADIMAC)**

During major fire incident, the high level management will be done by the national disaster management executive committee; their respective responsibilities are the following:

- Overseeing important decision making
- Strategic and policy guidance
- Facilitate policy and law enforcement

##### ***5.4.1. Duties of National Disaster Management Technical Committee (NDMTEC)***

The national Disaster Management Technical Committee plays key role during fire incident whereby its act with technical advises, therefore, the responsibilities are the following:

- Technical advises
- Serve as liaison between policy makers (NADIMAC) and field operators
- Work closely with operations commanders
- Provide other technical support

#### **5.4.2. *Duties of Incident Commander at Operation***

Upon arrival at an incident the IC has a wide base of information to consider. It is therefore essential that consideration is given as soon as possible to start laying the foundations of the incident command system. This will include the following:

- Consider all the relevant information whether from the pre-planning stage or that available on the scene prior to forming a plan.
- Identify hazard to crews and third parties, and select a safer system of work ensuring that a Tactical Mode is declared and communicated to all those on the incident ground.
- Assess available resources against the objectives of the incident and request additional support where required
- Form a robust plan to meet the objectives of the incident, prioritizing where necessary if the resources are not adequate to achieve them simultaneously.
- Consider environmental issues such as runoff water or airborne pollution as soon as practicable and where appropriate inform the relevant authorities, working within recognized protocols agreed with other agencies.
- Communicate plan to sector commanders and ensure regular updates are given and received on progress,
- Prepare to brief a more senior officer using all available relevant information so that a decision can be made as to whether that officer should assume command
- Establish support in order to provide a reporting and holding area for oncoming resources, to assist with communications from the incident ground and to document necessary information,
- Give early consideration to welfare, both of fire crews and any other party affected by the incident.
- Establish effective arrangements for communications, both on the incident ground itself and to provide regular updates to central control and oncoming supporting officers.

#### **5.5. Fire Emergency Response Team Composition & Responsibilities**

Emergency response teams during fire incident are very useful in terms of emergency responses; the teams should collaborate and work closely in order to effectively respond during emergencies. Here down an emergency response teams are described as follow below:

***Emergency response teams (ERT)***

In the event of fire incident or eminent emergency, several emergency response teams (formed soon after the contingency plan is initially implemented) will be responsible for properly activating, and administering the national contingency plan for fire incidents in conjunction with the ERT Coordinator (person chosen at the time the contingency plan is adopted). Teams, and their responsibilities, deserving due consideration include:

***Security Teams Composition***

RNP/Fire &Rescue Brigade

MINADEF/RDF

RCAA Fire Brigade

RRC First Responders Team

***RESPONSIBILITIES***

1. Alerting and warning
2. Incident recording and reporting
3. Law enforcement
4. Movement /evacuation supervision

***Fire Control Teams Composition***

RNP/Fire & Rescue Brigade

RCAA Fire Brigade

***Responsibilities***

1. Small firefighting extinguisher
2. Hazardous materials management

***First Aid Teams Composition***

MINADEF/RDF            RNP/Fire Brigade,

MINISANTE/SAMU & Clinical Service-Hospitals

RRC First Aid team

***Responsibilities***

1. Cardio-Pulmonary Resuscitation Skills
2. Basic first aid skills / some advanced first aid skills

***Damage Assessment and Recovery Teams Composition***

- MINEMA
- RNP
- NPDRR
- DDMCs
- NDMTC
- Other Partners

***RESPONSIBILITIES***

1. Securing shelter for temporary operations
2. Building inspection
3. Construction recovery
4. Engineering recovery

***Service Teams Composition***

- MINEMA
- NPDRR
- MININFRA/RTDA
- MINISANTE/SAMU
- RRC

***Responsibilities***

1. Public notification systems
2. Transportation services
3. Equipment services
4. Emergency shelter designation
5. Vital records management

***Supplies Teams Composition***

- MINEMA
- MININFRA/RHA/RTDA/REG
- MNPDRR
- RRC
- MINADEF/RDF
- RNP
- RCAA

**RESPONSIBILITIES**

1. Medical supplies
2. Food, water, candles, tape, blankets
3. New equipment supplies
4. Sanitation supplies

**Communication Teams Composition**

MINEMA

MINIYOYTH/ICT

MINALOC

RNP/FIRE & RESCUE BRIGADE

RCAA/FIRE BRIGADE

**RESPONSIBILITIES**

1. Preparation of the messages
2. Provide relevant information to the media
3. Provide relevant information to the high authorities
4. Communicate relevant information to the incident progress on the ground.
5. Internal & External Relations

**Search, Evacuation & Rescue team composition**

RNP/FIRE&RESCUE BRIGADE

MINADEF/RDF

RCAA/FIRE BRIGADE

MININFRA/RTDA

RRC/First Responders Teams

***Responsibilities***

Searching missing people, properties

Rescuing people after fire incident

Put in safe place fire victims for appropriate treatment

Provide transportation and other technical assistance for evacuation operations and route conditions

Prepare temporary evacuation site

**5.6. On Scene actions**

- Briefing and Information
- Communications
- Internal Personnel Notification
- External Contact Notification
- Involving Media
- Inter-Agency Liaison
- Cordon Control
- Inner Cordon
- Outer Cordon
- Closing Stages of the Incident
- Maintaining Control
- Welfare
- Debriefing
- Post Incident Consideration.

## ANNEX A: FIRE SAFETY CHECKLIST (PUBLIC AND PRIVATE)

### Resources inventory

The resources should be identified and be available when preparing for fire incidents

*Table 1: Available resources at institutions level*

Items	Location	Responsible
Fire extinguishers ABC &K	Every strategic position whereby response can be rapid	RNP/Fire & Rescue Brigade
Fire trucks	Every strategic position whereby response can be rapid	RNP/Fire & Rescue Brigade
RNP/Fire & Rescue Brigade	RNP Headquarters	RNP/Fire & Rescue Brigade

*Table 2: Needed resources*

Items	Location	Responsible
Fire trucks per two districts	Every strategic centralized position whereby response can be rapid	RNP/Fire & Rescue Brigade at District level
Qualified & Certified Fire & Rescue personnel	District level	RNP/Fire & Rescue Brigade at District level
Fire trucks	Different strategic positions in Kigali City	RNP/Fire & Rescue Brigade

### Fire safety checklist (public and private)

Whether at home or at work, you and your family should have a fire safety checklist so you can be prepared in case of an emergency. A fire safety checklist can easily be done on your own to make sure that you know the fastest exits and location of any fire safety equipment in an emergency. It will also help you to make sure your fire safety equipment and any fire alarms are in good working order.<sup>1</sup>

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<sup>1</sup> Fire Safety Checklist: by Kristin, Swain, ehow contributor

[http://www.ehow.com/list\\_6663204\\_fire-safety-checklist.html](http://www.ehow.com/list_6663204_fire-safety-checklist.html)

### **Fire extinguisher**

Fire extinguisher should be located in fire-prone areas such as the kitchen or a utility room. Being sure that fire extinguisher is easily reachable and can be located by all members of families.

At work, employers should have a fire extinguisher or fire hose in the building. Note should be made of its location and notify building occupants and be sure it does not appear to be outdated or malfunctioning. The Fire Safety Task Force will inspect and test and maintain any equipment at Public and Private Infrastructures. Every car should be equipped with fire extinguisher and this should be placed at easy access area for both driver and passengers.

### **Evacuation Plan**

An emergency evacuation plan should be available. A diagram of all infrastructural building and highlight the exits from each section of the building and houses. Go over this plan with Building occupants and set up a designated meeting place outside of the building to discuss all cases of fire. At work, your employers should already have an emergency evacuation plan. The plan should be viewed together so that all occupants are aware of the nearest exit from their work area and participate in any emergency evacuation drills responsible personnel for fire safety management may conduct.

### **Alarm System**

A full alarm system that notifies all buildings and home occupants should be strategically placed throughout at all buildings and homes. These are battery-operated and should be located in fire-prone areas such as the kitchen, near bathrooms and bedrooms, and the utility room. Battery-operated fire alarms are sensitive to smoke. Alarms should be loud enough for you and your family to hear in every part of the house. The battery should be changed in the alarms every six months to ensure that they are in good working order.

### **Smoke and Gas leak detectors**

Smoke detectors should be located in fire-prone areas such as the kitchen or a utility room. Being sure that smoke detectors is in good condition and can be heard by all members of families and building occupants.

### **Emergency Fire Blanket**

Alternative measures to extinguish car fire using lightweight and Durable, Emergency Fire Blanket