



GOVERNMENT OF CHHATTISGARH

District Disaster Fire Safety Management Plan

YEAR – 2020

DISTRICT - DURG

STATE DISASTER MANAGEMENT AUTHORITY, C.G.

**REVENUE & DISASTER MANAGEMENT DEPARTMENT
MAHANADI BHAWAN, MANTRALAYA, ATAL NAGAR, RAIPUR, CHHATTISGARH**

भूपेश बघेल
मुख्यमंत्री



छत्तीसगढ़ शासन,
मंत्रालय महानदी भवन
अटल नगर नवा रायपुर
दिनांक



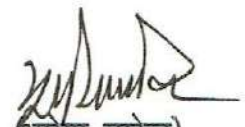
संदेश

जलवायु परिवर्तन और बदलती हुई पर्यावरणीय परिस्थितियों के कारण सम्पूर्ण विश्व में अग्नि दुर्घटनाओं में वृद्धि हुई है। अग्नि दुर्घटना चाहे प्राकृतिक हो या मानव निर्मित, ये जन-धन हानि के साथ-साथ विकास प्रक्रिया को भी पीछे धकेल देती हैं। दुर्घटनाओं के कुशल और समन्वित प्रबंधन के लिए ऐसा विकसित और प्रभावी तंत्र महत्वपूर्ण भूमिका निभाते हैं, जिससे तुरंत राहत और कम से कम नुकसान हो। इस योजना में अग्नि दुर्घटना के कारणों और उनके प्रतिकूल प्रभावों को कम करने की प्रभावी रणनीतियों का विस्तृत विश्लेषण शामिल है, जिसके सम्बन्ध में शासन के विभिन्न विभागों एवं समाज के विभिन्न वर्गों के बीच व्यापक जागरूकता तथा समन्वय की आवश्यकता है।

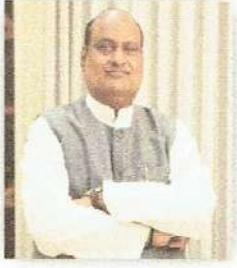
यह अत्यंत हर्ष की बात है कि राजस्व एवं आपदा प्रबंधन विभाग (राज्य आपदा प्रबंधन प्राधिकरण) एवं सहायक विभागों के साथ मिलकर "जिला आपदा अग्नि सुरक्षा प्रबंधन योजना 2020" तैयार की है। इस योजना में राज्य के अतर्गत अग्नि दुर्घटना से सुरक्षा की लगभग सभी संभावित जानकारी, उससे बचाव की रूपरेखा और अग्नि दुर्घटना को रोकने के उपायों के साथ-साथ अग्नि दुर्घटना के घटित हो जाने पर आकस्मिक सहायता, क्षमता संवर्धन, पुनर्वास कार्यक्रमों, सामान्य वातावरण की बहाली और पुनर्निर्माण कार्यों का विवरण इत्यादि को शामिल किया गया है। ऐसी उम्मीद है कि अन्य विभाग भी इसी प्रकार अपने निर्धारित विभागीय दायित्वों के निर्वहन के लिए अपनी विभागीय योजनायें शीघ्र ही प्रस्तुत करेंगे।

यह योजना व्यवहारिक उपायों और जन-भागीदारी के मजबूत इरादों के साथ जिलों को "अग्नि दुर्घटना" से भयमुक्त एवं असुरक्षा की भावना को कम करने में सक्षम सिद्ध होगी।

"जिला आपदा अग्नि सुरक्षा प्रबंधन योजना 2020" का प्रकाशन अपने उद्देश्यों में सफल हो, इसके लिए मेरी हार्दिक शुभकामनाएं।


(भूपेश बघेल)

जयसिंह अग्रवाल
मंत्री



छत्तीसगढ़ शासन,
राजस्व एवं आपदा प्रबंधन विभाग
मंत्रालय महानदी भवन
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“जिला आपदा अग्नि सुरक्षा प्रबंधन योजना 2020” छत्तीसगढ़ सरकार की एक नवीन पहल है। इस योजना का लक्ष्य जिलों में घटित होने वाली संभावित अग्नि दुर्घटनाओं से होने वाले व्यापक हानि को कम करना है। यह योजना अपने दायरे में व्यापक है और यह प्रशासन के सभी वर्गों को विस्तृत निर्देश देता है।

पिछले कुछ वर्षों में अग्नि सुरक्षा प्रबंधन राज्य एवं सभी जिलों के लिए एक चुनौती बन गया है। ऐसी महाविनाशकारी स्थिति से निपटना एक कठिन कार्य है। जिसमें विभिन्न प्रकार से कार्य निष्पादन, जोखिम आंकलन, जागरूकता तथा प्रशिक्षण, पर्याप्त आधारभूत संरचना हेतु अग्नि सुरक्षा का क्रियान्वयन, अग्नि सुरक्षा की तैयारी, प्राकृतिक संसाधनों का चिरस्थायी प्रबंधन तथा नीति बनाना अहम् कार्य है।

चूँकि अग्नि सुरक्षा योजना एक स्थायी प्रक्रिया है। इस परिपेक्ष्य में राजस्व एवं आपदा प्रबंधन विभाग और सहायक विभागों द्वारा जिला अग्नि सुरक्षा योजना तैयार किया जाना राज्य के जिलों को अग्नि दुर्घटनाओं से निपटने के लिए महत्वपूर्ण कदम है।

मैं, विभाग के इस सराहनीय पहल का स्वागत करता हूँ मुझे विश्वास है कि “जिला आपदा अग्नि सुरक्षा प्रबंधन योजना 2020” जिलों के नागरिकों के लिये अग्नि दुर्घटनाओं से बचाव तथा क्षमता में वृद्धि करने में सफल होगी।

जयसिंह अग्रवाल
(जयसिंह अग्रवाल)

रीता शांडिल्य
सचिव



छत्तीसगढ़ शासन,
राजस्व एवं आपदा प्रबंधन विभाग
मंत्रालय महानदी भवन
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अग्नि दुर्घटना ऐसी आपदा है जो वर्षों से किये गए कार्यों को निरर्थक कर देती है। अतः दुर्घटना से रोक थाम के प्रयास जैसे अल्प समय में – तैयारी, प्रशिक्षण, क्षमता-वर्धन और पुनर्निर्माण से जान-माल के नुकसान को कम किया जा सकता है।

जन सामान्य के अंतर्गत अत्यंत संवेदनशील वर्ग जैसे – बच्चे, बुजुर्ग, महिलायें, दिव्यांगजन एवं श्रमिक वर्ग पर अग्नि दुर्घटना के प्रभाव को कम करने हेतु जन भागीदारी, जन-जागरूकता, त्वरित प्रतिक्रिया, समन्वय बढ़ाने के लिए "जिला आपदा अग्नि सुरक्षा प्रबंधन योजना 2020" तैयार की गई है, जो एक प्रशंसनीय कार्य है।

"जिला आपदा अग्नि सुरक्षा प्रबंधन योजना 2020" के माध्यम से राज्य के जिलों में एक ऐसा तंत्र विकसित होगा जो भविष्य में जिले में घटित होने वाली किसी भी अग्नि दुर्घटना से निपटने में कारगर होगा।

R. Shankilya
(रीता शांडिल्य)

Acknowledgment

Under the leadership of Hon'ble Chief Minister of Chhattisgarh and Hon'ble Minister, Government of Chhattisgarh Revenue and Disaster Management Department, Chief Secretary Government of Chhattisgarh and Relief Commissioner and Secretary of Revenue and Disaster Management Department, we express gratitude towards all those who have contributed to the preparation of District Disaster Fire Safety Management Plan. According to the guidelines of Disaster Management Act 2005, this scheme has been prepared for public utility.

District Disaster Fire Safety Management Plan has been prepared with the aligned departments for the utmost benefit of the 'community'. The role of each of the department has been determined, to ensure coordination, preparation and appropriate action in the same manner before, during and after the disaster.

Ms. Reeta Shandilya, Secretary, Mr. K.D. Kunjam, Joint Secretary and Mr. A.K. Pillai Office superintendent Department of Revenue and Disaster Management, has given special cooperation for the preparation of District Disaster Fire Safety Management Plan.

For the preparation of actual structure of District Disaster Fire Safety Management Plan, special contribution is given by the Disaster Management Consultants Mr. Dilip Singh Rathore, Mr. Prashant Kumar Pandey, Mrs. Chetna, Ms. Jaya Sahu, Mr. Jitendra Solanki and Mr. S. Sreejit.

District Nodal Officer of Revenue and Disaster Management Department and other officers of related departments have given their major vital Contribution with Cooperation for the document preparation required for the plan.

Abbreviation:-

BSNL	Bharat Sanchar Nigam Limited	भारत संचार निगम लिमिटेड
CAF	Central Armed Forces	केन्द्रीय सुरक्षा बल
CBO	Community Based Organizations	सामुदायिक संगठन
CE	Chief Engineer	मुख्य अभियंता
CEO	Chief Executive Officer	मुख्य कार्यपालक अधिकारी
CMO	Chief Medical Officer	मुख्य चिकित्सा अधिकारी
CMRF	Chief Minister Relief Fund	मुख्य मंत्री राहत कोष
CSO	Civil Society Organization	नगर संस्था
DM-ACT	Disaster Management Act 2005	आपदा प्रबंधन अधिनियम 2005
DDMA	District Disaster Management Authority	जिला आपदा प्रबंधन प्राधिकरण
DDMP	District Disaster Management Plan	जिला आपदा प्रबंधन योजना
DDRF	District Disaster Response Force	जिला आपदा प्रत्युत्तर बल
DM	District Magistrate	जिला कलेक्टर
DMT	Disaster Management Team	आपदा प्रबंधन दल
DRR	Disaster Risk Reduction	आपदा जोखिम न्यूनीकरण
EOC	Emergency Operation Center	आपातकालीन परिचालन केन्द्र
ESF	Essential Service Functions	आवश्यक सेवा कार्य
EWS	Early Warning System	पूर्व चेतावनी प्रणाली
FRT	First Response Team	प्रथम प्रत्युत्तर टीम
GIS	Geographic Information System	भौगोलिक सूचना प्रणाली
GP	Gram Panchayat	ग्राम पंचायत
GPS	Global Position System	स्थिति निर्धारण वैश्विक प्रणाली
HFA	Hyogo Framework for Action	हयोगो कार्यवाही रूपरेखा
HRVCA	Hazard Risk Vulnerability Capacity Analysis	खतरा, जोखिम, संवेदनशीलता (भेद्यता) क्षमता विश्लेषण
HVCA	Hazard Vulnerability Capacity Analysis	खतरा, संवेदनशीलता (भेद्यता) क्षमता विश्लेषण
IAF	Indian Armed Force	भारतीय सशस्त्र बल
IAG	Inter-Agency Group	इन्टर एजेंसी ग्रुप
IAP	Immediate Action Plan	तात्कालीन कार्य योजना
ICDS	Integrated Child Development Services	समेकित बाल विकास सेवायें
IMD	Indian Meteorological Department	भारतीय मौसम विज्ञान विभाग
IMT	Incident Management Teams	घटना (आपदा) प्रबंधन टीम
IRS	Incident Response System	घटना (आपदा)प्रत्युत्तर प्रणाली
IRT	Incident Response Team	घटना (आपदा)प्रत्युत्तर टीम
IAY	Indira Awas Yojna	इंदिरा आवास योजना
LSG	Lower Selection Grade	निम्न प्रवर कोटि
MGNREG S	Mahatma Gandhi National Rural Employment Guarantee Scheme	महात्मा गाँधी राष्ट्रीय ग्रामीण रोजगार गारंटी योजना

MI&CT	Ministry of Information & Communication Technology	सूचना एवं संचार प्रौद्योगिकी मंत्रालय
MLA	Member of Legislative Assembly	विधान सभा सदस्य
MNREGA	Mahatma Gandhi National Rural and Education Guarantee Action	महात्मा गाँधी राष्ट्रीय ग्रामीण शिक्षा गारंटी अधिनियम
MoAFW	Ministry of Agriculture and Farmers Welfare	कृषि एवं किसान कल्याण मंत्रालय
MoCI	Ministry of Commerce and Industry	वाणिज्य एवं उद्योग मंत्रालय
MoEF&CC	Ministry of Environment forest Climet change	पर्यावरण वन व जलवायु परिवर्तन मंत्रालय
MoHFW	Ministry of Health & Family Welfare	स्वास्थ्य एवं परिवार कल्याण मंत्रालय
MHA	Ministry of Home Affairs	गृह मंत्रालय
MoHRD	Ministry of Human Resources Development	मानव संसाधन विकास मंत्रालय
MoL&E	Ministry of Labour & Employment	श्रम एवं रोजगार मंत्रालय
Mop	Ministry of Power	विद्युत मंत्रालय
MoPR	Ministry of Panchayati Raj	पंचायती राज मंत्रालय
MoRD	Ministry of Rural Development	ग्रामीण विकास मंत्रालय
MoRTH	Ministry of Road Transport and Highway	सड़क परिवहन और राजमार्ग मंत्रालय
MoWF	Ministry of Water Resources	जल संसाधन मंत्रालय
MoUD	Ministry of Urban Development	शहरी विकास मंत्रालय
MP	Member of Parliament	संसद सदस्य
MPLADS	Member of Parliament Local Area Development Schemes	सांसद क्षेत्रीय विकास योजना
NABARD	National Bank for Agriculture and Rural Development	राष्ट्रीय कृषि एवं ग्रामीण विकास बैंक
NCC	National Cadet Corps	राष्ट्रीय छात्र सेना
NDMA	National Disaster Management Authority	राष्ट्रीय आपदा प्रबंधन प्राधिकरण
NDRF	National Disaster Response Force/ Relief Fund	राष्ट्रीय आपदा प्रत्युत्तर बल/राहत कोष
NIDM	National Institute of Disaster Management	राष्ट्रीय आपदा प्रबंधन संस्थान
NGOs	Non- Government Organizations	गैर-सरकारी संगठन
NRSC	National Remote Sensing Center	राष्ट्रीय सुदूर संवेदन केन्द्र
NREGA	National Rural Employment Guarantee Act	राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम
NREGS	National Rural Employment Guarantee Scheme	राष्ट्रीय ग्रामीण रोजगार गारंटी योजना
NRHM	National Rural Health Mission	राष्ट्रीय ग्रामीण स्वास्थ्य मिशन
NSV	National Service Volunteer	राष्ट्रीय सेवा स्वयंसेवक
NYK	Nehru Yuva Kendra	नेहरू युवा केन्द्र
PDS	Public Distribution Shop	जनवितरण दुकानें
PHC	Primary Health Center	प्राथमिक स्वास्थ्य केन्द्र
PHED	Public Health Engineering Department	लोक स्वास्थ्य यांत्रिकी विभाग
PMRF	Prime Minister Relief Fund	प्रधानमंत्री राहत कोष
PWD	Public Works Department	लोक निर्माण विभाग

Q&A	Quality and Accountability	गुणवत्ता एवं जवाबदारी
QRT	Quick Response Team	त्वरित प्रत्युत्तर टीम
SDMA	State Disaster Management Authority	राज्य आपदा प्रबंधन प्राधिकरण
SDMP	State Disaster Management Plan	राज्य आपदा प्रबंधन योजना
SDRF	State Disaster Response Force/ Relief Fund	राज्य आपदा प्रत्युत्तर बल/ राहत कोष
SHG	Self Help Group	स्वयं सहायता समूह
SME	Small and Medium Enterprise	लघु एवं मध्यम उद्योग / उपक्रम
SOP	Standard Operating Procedure	मानक परिचालन पद्धति
SP	Superintendent of Police	पुलिस अधीक्षक
WRD	Water Resources Department	जल संसाधन विभाग
WHO	World Health Organisation	विश्व स्वास्थ्य संगठन

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1. Introduction

1.1 Background

Fire accident refers to a serious disruption to the functioning of a society, causing widespread human, material or environmental loss, which exceeds the ability of the affected society to cope using its own resources. With this, fire causes heavy damage to our house, farm, human and animal life and everything is completely ruined.

An effective and holistic Fire Safety Management Plan (FSMP) with robust communication, efficient database, documented and rehearsed is necessary to be activated in the shortest possible time with user friendly procedures. This is to ensure active participation of government as well as community at all levels by making optimum utilization of the available resources to minimize loss of life and property. The vision of FSMP is to enable disaster resilient development in Durg district and to ensure the continuity of services essential for life during disaster and non-disaster situations. The FSMP will guide the entire machinery engaged for relief operation and builds confidence among the community and stakeholders to face the disaster.

Classification of Fire Accident:

Selection of appropriate Fire Extinguishers according to different Fire Accident:

- **A Class Fire** – It includes paper, wood, clothes etc.
- **B Class Fire** – It includes liquid like oil, diesel, petrol, paint, chemicals, kerosene etc.
- **C Class Fire** – It includes gases like LPG etc.
- **D Class Fire** – It includes electrical equipment, Metal etc.

1.2 District Fire Safety Management Plan

According to the Disaster Management Act 2005 (DM Act), there will be a fire control plan for every district in the state. The District Disaster Management Authority (DDMA) nodal agency in each district will be responsible for the preparation, functioning, review and update of the fire control plan in consultation with local authorities, as per national and state plans.

The District Disaster Management Authority, Home Guard and Civil Defense Department are an important organization for dealing with fire accidents at the district level and to keep the public community safe. The District Collector is the chairman of the authority who can direct various departments of the district level to deal with the disaster at the time of fire accident. The community and NGOs contribute significantly in the preparation, training, and implementation of the District Fire Safety Management Plan.

1.3 Requirements of Plan

In Durg District there will be an industrial as well as urban area in addition to large industries; there are industrial units in which fire-related accidents occur on the day. Keeping in mind the dangers of fire accidents in the district and to reduce its impact, it was considered to develop a plan that improves the response of the district and reduce the risks of fire accident and implement the plan to enhance the capacity of the community.

1.4 Objectives of District Fire Safety Management Plan

- i. To ensure the preparedness of the district by analyzing the impact of fire accident risk in district Pan.
- ii. To implement various aspects of disaster mitigation development plans of the area specific.
- iii. According to the records and past experiences in the district, to prepare a framework for future resolution.
- iv. Implementation of action by adopting standard working procedure in coordination with disaster management departments during fire accidents.

1.5 Domain of the Plan

The emergency planning process is very important for any district in view of the impact of fire accident on the government, industry and community. The scope of this scheme will be broad which is as follows: -

- Geographical area sensitive to fire accident hazards in districts.
- Roles and responsibilities of various government departments, agencies, private sector, NGOs and citizens.

1.6 Interest Holders and Responsibilities

State Level - The State Disaster Management Authority and State Fire Service is an important institution at the state level. It is capable of dealing with any type of fire accident. The main line departments and the agency that conduct emergency aid work, receive support from the SDRF and EOC at the time of disaster.

District Level - The District Disaster Management Authority, Home Guard and Civil Defense Department is an important organization for dealing with fire accidents at the district level and to keep the public community safe. The District Collector is the chairman of the authority who can direct various departments of the district level to deal with the disaster at the time of fire accident. The community and NGOs contribute significantly in the preparation, training, and implementation of the District Fire Safety Management Plan.

1.7 State Profile

Chhattisgarh was formed on 1st November, 2000 and known as twenty sixth State of country. With Uttar Pradesh to the north, Jharkhand to the north-east, Orissa to the east, Telangana, Andhra Pradesh to the south, Maharashtra to the southwest and Madhya Pradesh to the north and north-west form its boundaries.

According to the 2011 census, it has a total population of 2,55,40,196 (2.11% of the total population of India) out of which about 1,96,03,658 are rural population (76.76% of the State

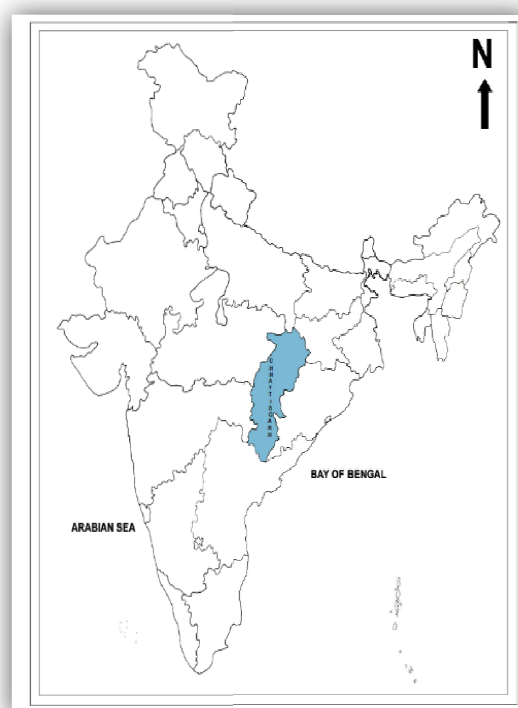


Fig.1: Chhattisgarh Location Map

population) and 59,36,538 are urban population (23.24% of the State population).

1.8 Administrative Profile

<i>Administrative Unit</i>	Number
<i>Divisions</i>	05 (Raipur, Durg, Bilaspur, Surguja and Bastar)
<i>Districts</i>	27
<i>Municipal Corporations</i>	13
<i>Sub-divisions</i>	79
<i>Tehsils</i>	150
<i>Patwari halkas</i>	5577
<i>RI Circles</i>	283
<i>Villages</i>	20,350

Table 1: Administrative Profile

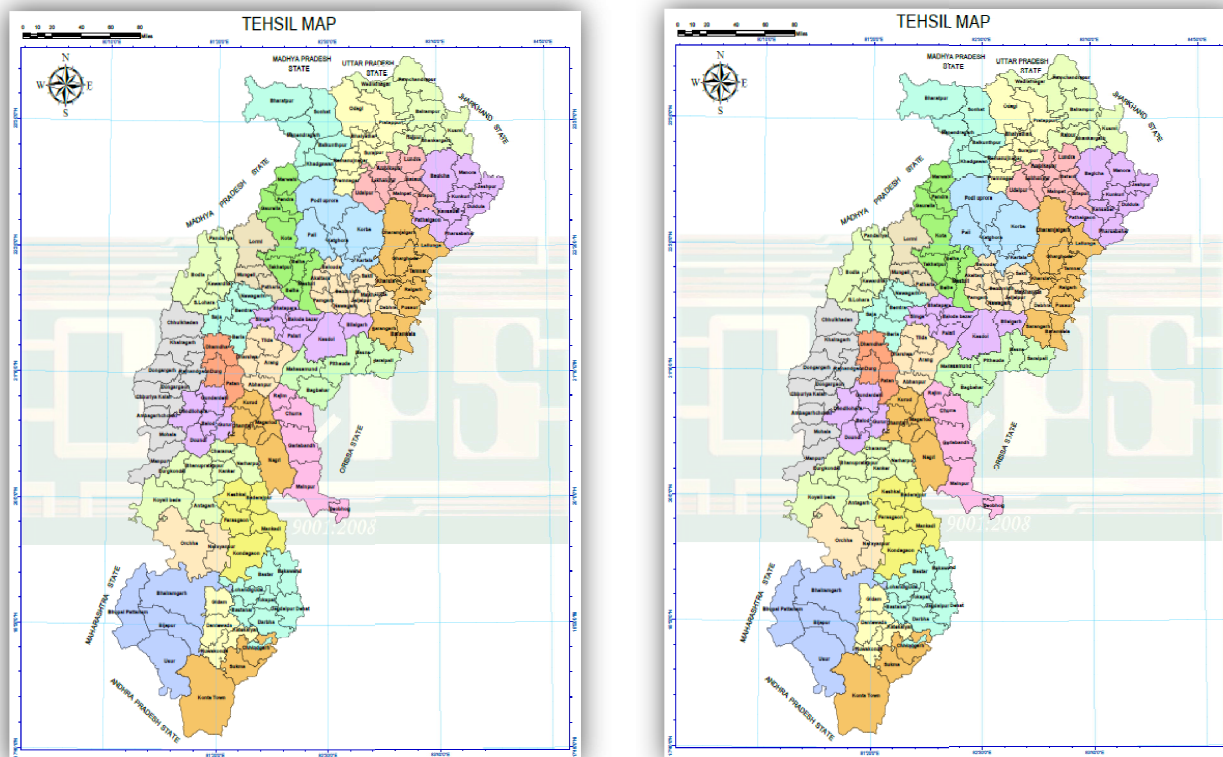


Fig.2: Division and Tehsil Map of Chhattisgarh

1.9 District Profile

District Durg						
Tehsil	Geographical Area (in Ha.)	No. of Cities	No. of Village	No. of Gram Panchayat	No. of Janpad Panchayat	No. of Nagar Panchayat
Durg	232091	2	447	297	03	03
Dhamdha						
Patan						

Table 2: District Profile

There are 03 tehsils, 03 janpad panchayats in the district namely Durg, Dhamdha, Patan, 03 Nagar Panchayat namely Utayi, Dhamdha and Patan. There are 22 Police Stations, 06 Chaukies and 28 Revenue Inspector Circle, 185 Patwari Circle (Urban-37 / Rural-148) and 01 Agriculture Produce Market in the district.

Geography and Topography

Situated on the east bank of river Shivnath, District Durg is herald of Chhattisgarh's Industrial Development, Cultural competence, Social harmony and Meaningful use of resources. It is a symbol of status, prestige and glory of Chhattisgarh. History of Durg is like conducive inspiration which is unique mixture of oldness and modernity, culture-rite and entrepreneurship. Bhilai known as "Mini India" for Industrial development, social harmony and cultural diversity is a twin city of Durg.

Durg district is one of the densely populated districts of the Chhattisgarh state of India. On the basis of climate and topography the Chhattisgarh state is divided into 3 agro climatic zones. The Bastar Plateau comprises of Bastar, Dantewada, Bijapur & Narayanpur districts and a part of Kanker (excluding Charama, Narharpur & Kanker Blocks). Northern parts of the state come under "Northern Hilly Region" which comprises of Sarguja, Koriya & Jashpur Districts. Bilaspur, Raipur, Janjgir-Champa, Raigarh, Rajnandgaon, Kawardha, Durg, Mahasamund, Dhamtari, Korba and parts of Kanker come under "Plains of Chhattisgarh".

Fire Safety Management Plan, Durg (C.G.)

Durg district is situated in the southern part of the rich Chhattisgarh plain.

- Area of District Durg is 2238.36 Sq. Km.
- District lies between 20°54' and 21°32' north latitude and 81°10' and 81°36' east longitude.
- District is 317 meters above mean sea level.
- As per Census 2011 (provisional), the population of the district is 17, 21,726. In which 6, 17,184 is rural population and 11, 04,542 is urban population.
- The district is bounded by Bemetara district in the north, Rajnandgaon district in the west, Balod district in the south and Raipur and Dhamtari district in the east.
- Durg district is situated on the Howrah-Mumbai main line of south-eastern railway. National Highway No. 6 also passes through the district.

The height of the district is 317 meters above sea level. The forest area is 158.7 ha. Durg district is surrounded by Bemetara in the north, Raipur in the east, Rajnandgaon in the west, Balod in the south and Dhamatri in the south-east. The tree-covered area is 546 hectares. The agricultural land in the district is 176863 ha. and non-agricultural land is 55136 ha.

Latitude and Longitude	20°54' North latitude to 21°32' North latitude 81°10' East Longitude to 81°36' East Longitude
Major rivers	Shivnath, Kharun, Amner
Neighbouring District	North-Bemetra South-Balod East-Raipur West-Rajanandgaon South-East - Dhamtari

Table 3: Geography

Rivers

The general slope of the district is towards the north-east in which direction the major streams of the district flow.

Shivnath

Shivnath is main river of District Durg. Shivnath River is tributary of Mahanadi River. Shivnath River originates from Mountain at height of 625 meter at Panabaras situated in south western parts of Rajnandgaon and flows towards north east direction. Shivnath River measures length about 345 KM. City Durg is situated on east bank of Shivnath River. It flows towards north east passing through Khujji, Rajnandgaon, Durg, Dhasmha and Nandghat and joins (meet) Mahanadi near Shivari Narayan of Bilaspur District.

Kharun

Kharun River flows in eastern parts of the district starting from Petechua in Balod District. This river flows towards north and joins (meet) Shivnath River at Somnath. This river determines the boundary of Raipur and Durg district. The length of this river is about 120Km.

Reservoirs	Small	Medium	Large
Total	148	01	01
Drinking water (tube well and number of wells)	Tube well -13476 (54213 ha.) Well-493 (685 ha.)		
Canal	140		
pond	63 (1538 ha.)		

Table 4: Reservoir

The climate of the district is tropical. In summer the temperature reaches 45-46 ° C. The temperature increases from March to May. May is the hottest among all the months. The annual average rainfall of Durg district is 1081.2 mm. District receives maximum rainfall during June to September. July is the highest rainfall month.

MAP OF DURG DISTRICT

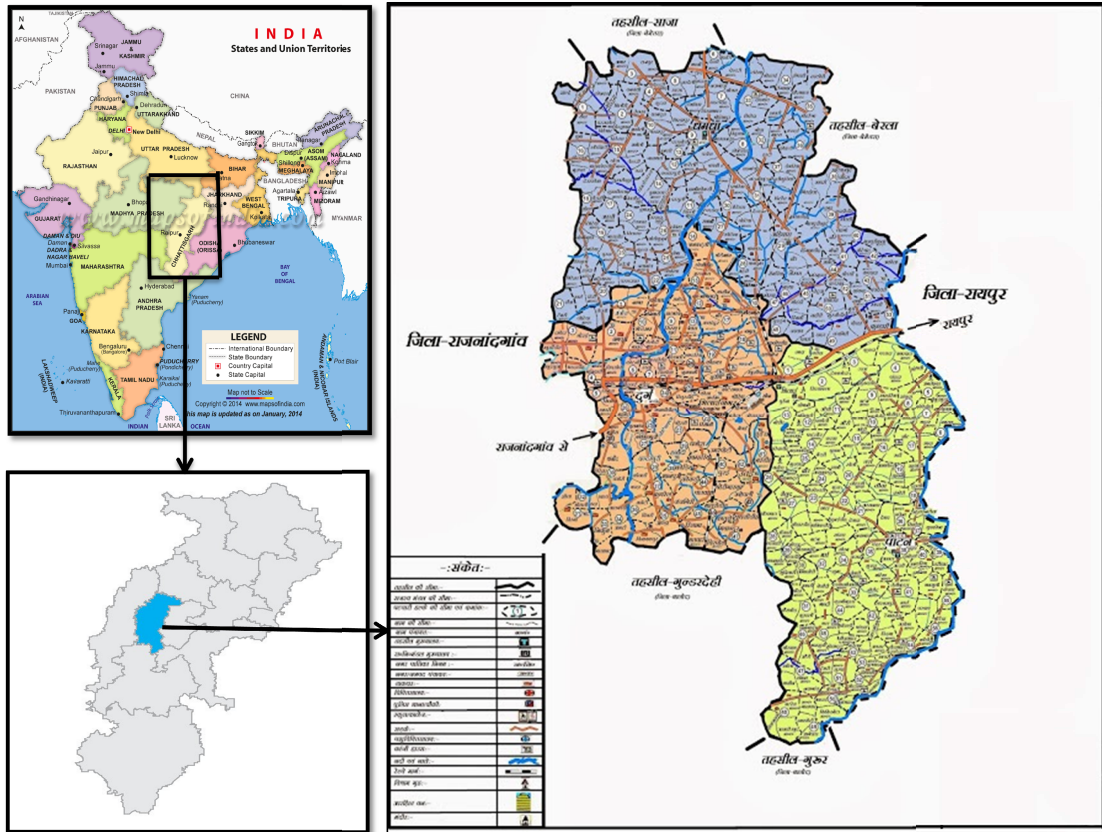


Fig. 3: Tehsil Map

Physical Aspect

Area

According to Census 2011, the total population of the district is 17, 21,948. In which the rural population is 6, 17,248 (35.84%) and the urban population is 11, 04,700 (64.16%).

Demography

The total population of the district is 17, 21,948. Languages spoken are Hindi and Chhattisgarh. Literacy rate is 82.56%. Rural decade growth rate of the district is 18.44 and urban decade growth rate is 19.77. The main crop of the district is paddy.

Demography		
1	Population	1721948
	Scheduled Caste	245587
	Scheduled Tribes	101188
	Rural	617248
	Male	309701
	Female	307547
	Urban	1104700
	Male	566112
	Female	538588
	Child(0-6 yrs)	210511
	Male	108076
	Female	102435
2	Population Density	392 per km ²
3	Decadal Growth Rate	14.56%
	Rural	18.46%
	Urban	19.75%
4	Sex Ratio (No. females per 1,000 males)	966
	Rural	993
	Urban	951

	Child (0-6 yrs)	948
5	Literacy Rate (as per Census 2011)	82.56%
	Male Literacy Rate	89.88%
	Female Literacy Rate	75.01%
	Rural	65.00%
	Urban	76.00%
6	Crude Birth Rate (Per 1000 population)	20.30%
7	Crude Death Rate (Per 1000 population)	6.20%
8	Infant Mortality Rate (Per 1000 live birth)	35.00%
9	Maternal Mortality Rate (Per 100000 live birth)	2.11%
10	Natural Growth Rate (Per 1000 population)	14.20%

Table 5: Demography

2. Assessment of Vulnerability, Capacity and Risk of Fire Accident in the District

Fire accident adversely affects human life, due to these accidents there is financial loss as well as mental damage which occurs, due to fire accident in the forest, the destruction arises everywhere and due to this accident variety of forests also appears, which takes several decades to come to the foreground. On the other hand, due to industrial fire accident, sometimes large scale loss of life and property takes place.

At present, due to the increasing urbanization, the number of fire accidents has increased continuously.

Fire Accident

$$\text{Risk} = \frac{\text{Hazard (H)} * \text{Vulnerability (V)} * \text{Exposure (E)}}{\text{Capacity to Cope (C)}}$$

Hazard - Hazard is a situation where there is a possibility of loss of life, health, environment or property. This can be natural or man-made incidents, which cannot be stopped. It causes heavy losses of life and property in the state and district.

Vulnerability - Due to the nature, construction and proximity to threatened areas or disaster prone areas, a community, structure, service or geographic area is likely to be damaged or interrupted by the effects of special danger.

Risk - Risks occur when there is an event of danger, the expected loss of any community. It may include loss of life, injury to individuals, loss of property and / or interruption in economic activities and livelihood.

Capacity - Using the skills and resources available to manage adverse conditions, risks or disasters is the ability to increase the eligibility of people, organization and systems. In order

to cope with any situation, it is essential to develop awareness of the resources and resources of the resources, during normal times as well as during the disasters or adverse conditions.

Exposure - The existence and the number of people, property, infrastructure, housing, production capabilities, livelihood, systems and other elements located in hazardous areas are known as exposures.

2.1 Hazard Profile

A hazard profile has been developed for fire accidents in Durg. A hazard profile includes following information about the hazard:

1. Frequency of occurrence – how often it is likely to occur.
2. Magnitude and potential intensity – how bad it can get.
3. Location – where it is likely to strike.
4. Duration – how long it can be expected.
5. Seasonal pattern – the time of year during which it is more likely to occur.
6. Speed of onset – how fast it is likely to occur.

Hazard	Potential Magnitude (% of community that can be affected)	Frequency of Occurrence	Areas Likely to be Affected Most	Probable Duration	Probable Time of the Year	Potential Speed of Onset (Probable amount of Warning Time)
Fire	Critical	Frequently	Entire District	Few hours	Throughout the year	Minimal or no warning

Table 6: Hazard Profile

Note: Potential magnitude 1. Catastrophic: More than 50%. 2. Critical: 25-50%. 3. Limited:

10-25%. 4. Negligible: Less than 10%

Frequency of occurrence 1. Frequently: Near 100% possible in next year. 2. Likely: Between 10-100% probability in next year or at least one change in next year. 3. Occasional/Possible: Between 1-10% probability in next year or at least one change in next 100 years. 4. Unlikely: Less than 1% probability in next 100 years.

2.2 Risk Analysis

Risk is the predicted impact that a hazard would have on people, services, specific facilities and structures in the community. Quantifying risk enables district to focus on those hazards that pose higher threat to life, property and environment. Analyzing risks is helpful to develop the response priorities. Risk priority is assigned using qualitative ratings such as high, medium and low.

Hazards	Geography	Infrastructure & Property	Demography
Fire	Low	High	High

Table 7: Risk Analysis

2.3 Vulnerability Analysis

Based on the review and analysis of inputs/data the most important disaster risk with reference to the lowest administrative unit in the district is identified.

S.No.	Vulnerability Analysis	Answers
Result of Hazard Analysis		
1	How the hazard affects everyone? Referring to occurrence, frequency and duration as well as exposure of affected area?	Fire incident not only affects on a small scale but also on a very large scale. In comparison to other hazards, fire is the most severe one because the frequency and scale of incident varies every time.

Results of Vulnerability Analysis		
2	Explain the vulnerabilities in relation to the hazard affecting the community, and how these make the community susceptible to the hazards.	The highly prone area in the aspect of fire incidents in the district are congested, over populated regions wherein a small fire incident leads to a big disaster which affects the community nearby.
Results of Capacity Analysis		
3	What are the main capacities available in the community?	Hospitals, Fire stations, Fire extinguishers, Water/Foam tanker etc.
	Explain their relationship and how they increase the resilience of the community.	<ul style="list-style-type: none"> • Hospital: For immediate medical assistance. • Fire Station: For immediate response and rescue. • Water Tanker: For emergency fire control.
	Top four weakness	<ul style="list-style-type: none"> • Inadequate safety equipments. • No safety audit. • Non-maintenance of available fire safety resources. • Lack of fire safety management awareness.
Recommendations to Mitigate, Prepare for and Respond to Disaster Impacts		
4	Given the hazard vulnerability capacity assessments identify the most pressing assistance needed to reduce the vulnerabilities and increase the capacities of the community.	<ul style="list-style-type: none"> • Maintenance of fire safety equipments like fire extinguisher, sand bucket etc. • Adequate safety equipments. • Safety Audit. • Creating awareness to all age group about fire safety management.

Table 8: Vulnerability Analysis

2.3.1 Potential Fire Risks in the District

According to the district administration the following is the description of potential fire risk in the district.

Description of Potential Fire Risk in the District			
S.no.	Description	Total Number	
		Residential	Non Residential
1	Building up to 15 meters in height	412	107
2	Buildings ranging in height from 15 meters to 24 meters.	116	15
3	Buildings ranging in height from 25 meters to 50 meters.	–	1
4	Buildings above 50 meters in height		1
5	Industrial Area/ Chemical field	8	97
6	Cinema Hall/ Mall/ Theatre	1	8
7	Public meeting place		11
8	Explosive materials (crackers etc.)	1	18
9	Pilgrimage Area (temporary population)	1	–
10	Public ceremony grounds where tents are allowed for circus, religious or social work	1	2

Table 9: Description of Potential Fire Risk in the District

Classification of Buildings			
S.no.	Types of Buildings		Total Number
1	Residential building	Lodge	15
		Dormitory	6
		Apartments/ Flat	828
		Hotel	96

		Hotel (Starred)	2
2	Academic building	Primary School	88
		Middle School	64
		High School	50
		Higher Secondary School	70
		Govt. / Private College	29
		Govt. / Private Hostel	8
		Other Training Institutes	28
3	Institutional building	Hospital	63
		Jail and Mental Recovery Institute	3
4	Community Hall		82
5	Commercial Buildings		22731
6	Industrial Building		866
7	Storage Buildings		10
8	Vulnerable/ Dangerous Buildings		0

Table 10: Classification of Buildings

Fire Vulnerability Analysis						
S.no.	Fire Range	Location	Type of Area	Distance (km)	Availability of Fire Services (Yes/ No)	Vulnerable Area
1	All Low, Medium, High	Durg	Residential	40 km	Yes	No
		Durg	Industrial	40 km	Yes	No
		Rasmara	Industrial	–	Yes	No
		Chhawani	Industrial	–	Yes	No
		Bhilai	Industrial	–	Yes	No
		Hathkhoj	Industrial	–	Yes	No

Table 11: Fire Vulnerability Analysis

2.4 Capacity Analysis

Capacity includes all such resources human equipment infrastructure etc. which are involved in relief and rescue operations at the time of fire accident in the district that a comprehensive database of list of resources related to fire protection is required for organized response. Lack of proper and sufficient information causes delay in responding to the correct time.

Information on trained resources in **Durg** such as trained human resources, fire protection equipment, search-rescue equipment etc. are district wise available in IDRN and State Disaster Management Authority and State Emergency Services.

2.4.1 Human Resource

Trained staff and officers of various line departments also play an important role in the district, from search and rescue to fire accidents. The list of contacts of various emergency numbers and various line departments is mentioned below in the contact list.

CGSDMA, State Fire Services, Chhattisgarh Academy of Administration the state level training is conducted regularly. The main objective of the training program is to enable the district administration to deal with any type of industrial accident. Training is also provided at the district level under the Disaster Risk Management Program. These trainings include training on search and rescue, first responder, training of architect and engineer for safe construction. It has created a large trained human resource at the district and state level.

2.4.2 Equipments

State Disaster Management Authority, State Disaster Response Force, Fire Fighting Service, District Administration provide fire prevention, search-rescue tools to deal with fire accident, the list of which is as follows-

Resource List		
S.No.	Resources	Numbers
1	V- SAT	2
2	Bus	3

Fire Safety Management Plan, Durg (C.G.)

3	Tractor	22
4	Light Ambulance Van	3
5	Truck	8
6	Matador	1
7	Extension Stair	15
8	Chemical protective Clothing (A.B.C) Suit NBC	6
9	Tokari Stretcher	5
10	Fire Tender	12
11	Foam Tender	8
12	Ambulance	22
13	Private Ambulance	36
14	Police Station	8
15	Police Traffic Point	22

Table 12: Resource List

2.4.3 Water Resources

Availability of water sources is necessary to deal with the fire accident in the district.

Details of Water Resources for Fire and Emergency Assistance during Summer Season							
Availability of Water							
S.no.	District	Tehsil	Dam, River, Others	March, 31-03-19	April, 31-04-19	May, 31-05-19	June, 30-06-19
Medium Plan							
1	Durg/ Balod	Gunderdehi/ Durg	Khapri Reservoir	4.5	3.09	2.91	2.65
2	Durg	Durg	Maroda Reservoir	–	–	–	–
Small Plan							
1	Durg	Patan	24	0	0	0	0
2	Durg	Durg	25	0	0	0	0

3	Durg	Dhamdha	47	0	0	0	0
Total			96	0	0	0	0

Table 13: Details of Water Resources for Fire and Emergency Assistance during Summer Season

2.5 Fire Incidents in Durg District

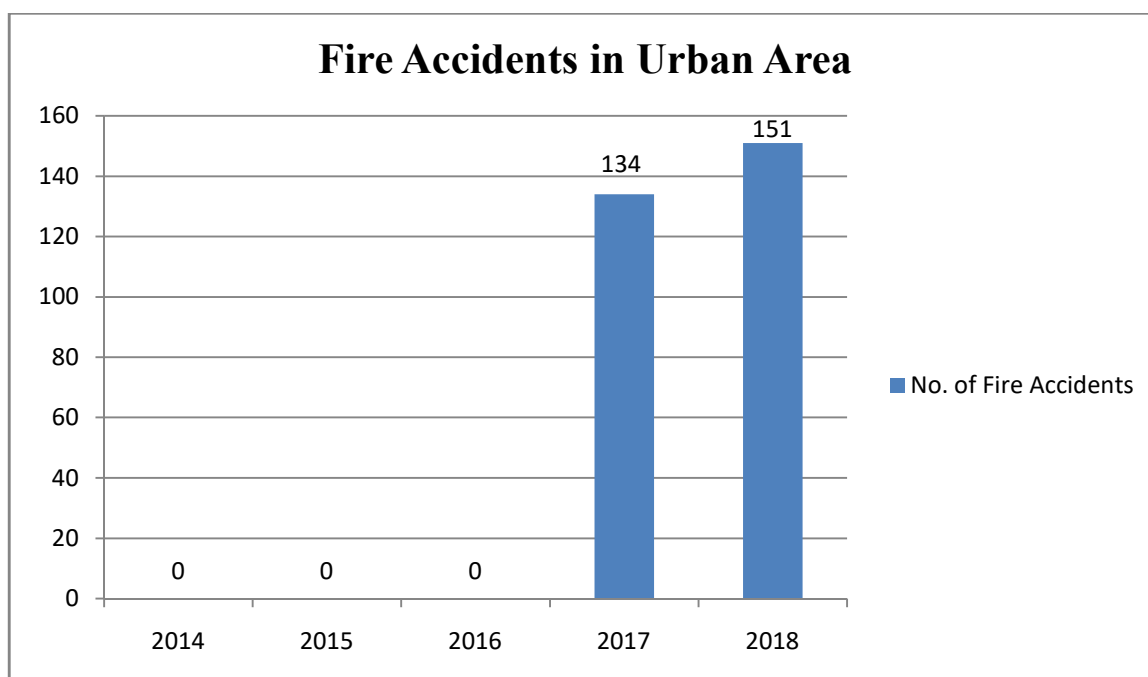
Fire accident is a dangerous disaster for the entire district, according to last five years data of fire incidents, there is an increase in the number of fire accidents in the urban and industrial area in the district. Such as:-

- ✓ **Urban fire**
- ✓ **Rural fire**
- ✓ **Industrial fire**

2.5.1 Fire Accidents in Urban Area

Details of Fire Accident in Urban Area					
S.no.	Year	Causes (Faulty electrical system, Flammable materials, etc.	No. of Fire Accidents	Nearest Fire Station	How to control fire accident
1	2014	–	–	–	–
2	2015	–	–	–	–
3	2016	–	–	–	–
4	2017	Unknown	134	Durg	Water/ Foam
5	2018	Unknown	151	Durg	Water/ Foam

Table 14: Details of Fire Accident in Urban Area

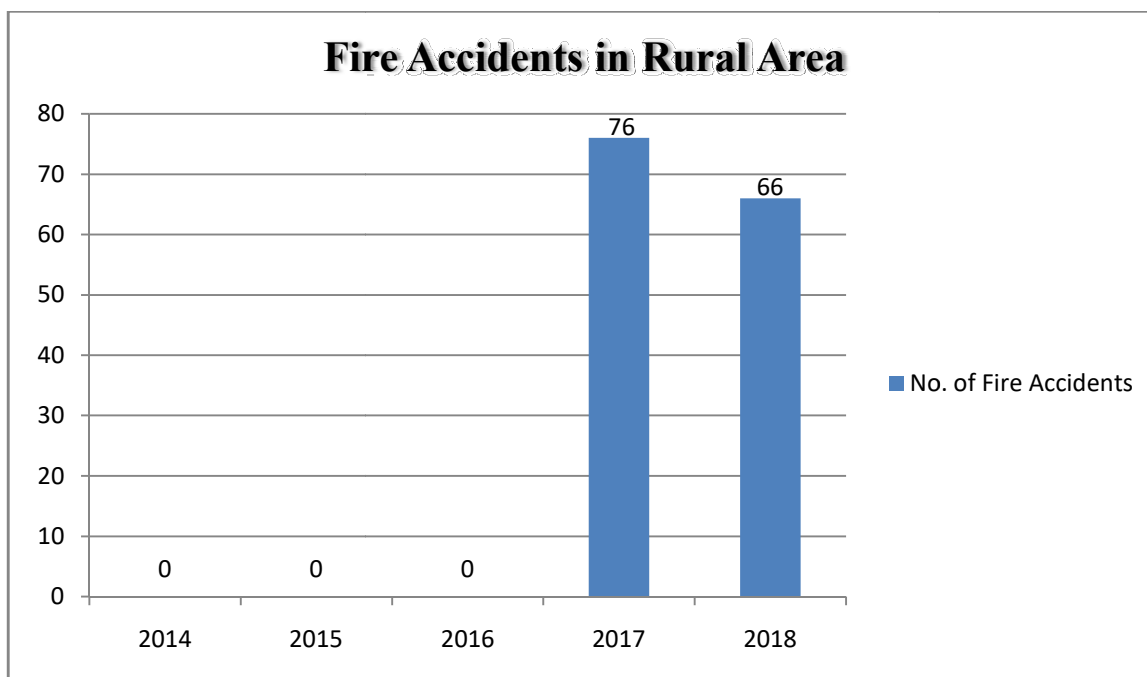


Graph 1: Fire Accidents in Urban Area

2.5.2 Fire Accidents in Rural Area

Details of Fire Accident in Rural Area					
S.No.	Year	Causes (Faulty electrical system, Flammable materials, etc.	No. of Fire Accidents	Nearest Fire Station	How to control fire accident
1	2014	–	–	–	–
2	2015	–	–	–	–
3	2016	–	–	–	–
4	2017	Unknown	76	Durg	Water/ Foam
5	2018	Unknown	66	Durg	Water/ Foam

Table 15: Details of Fire Accident in Rural Area



Graph 2: Fire Accidents in Rural Area

2.5.3 Industrial Fire Accident

Details of Industrial Fire Accident							
S.no.	Year	Incident Place	Causes (Faulty electrical system, Flammable materials, etc.	No. of Fire Accidents	Affected People (Death/ Injured)	Nearest Fire Station	How to control fire accident
1	2014	Bansal Brothers Plot No. 10, Industrial Estate, Bhilai, Dist- Durg	During Gas Cutting	1	Nil	Municipal Corporation Bhilai, Fire Extinguishing Service Bhilai	By Fire Brigade
		Shivansh Green Energy Solution Pvt. Ltd., Village- Baasin, Tehsil- Dhamdha	During the making of furnace oil from old tires, a gas leak from the reactor ignited fire.	1	Nil	Fire Extinguishing Service Durg	By Fire Brigade

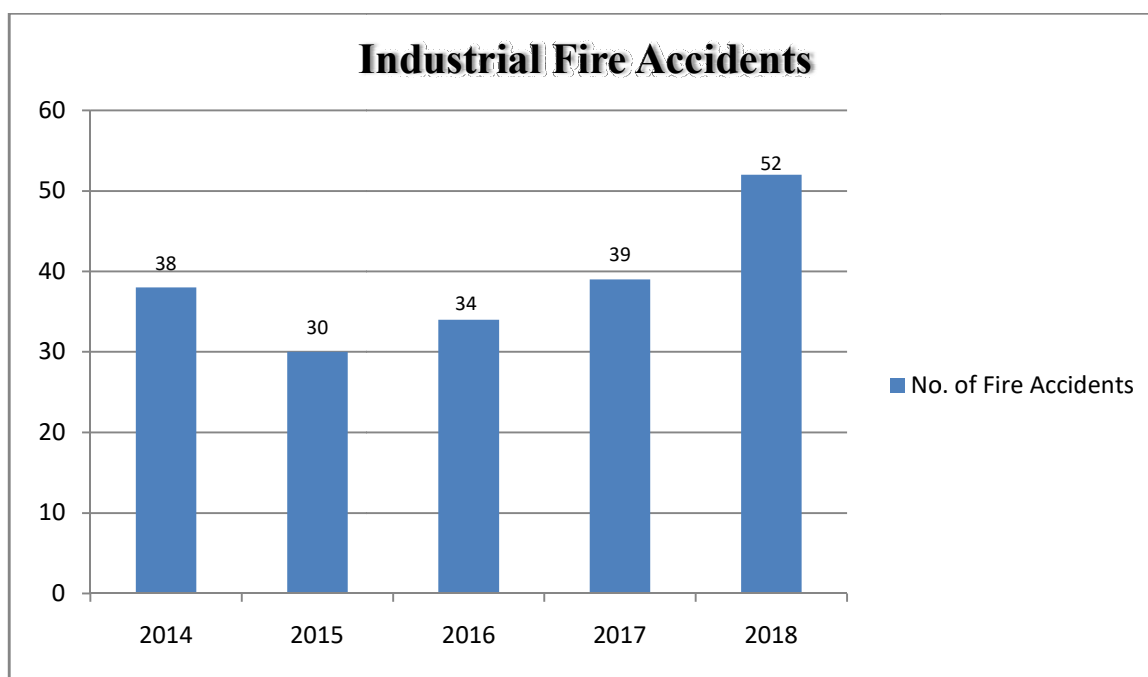
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		Bhilai Steel Plant	Faulty electrical system, Welding, cutting, hot metal, coke, sinter, slag, hit over, friction, self combustion etc.	36	Nil	Fire Extinguishing Service Bhilai Steel Plant	By Water, Foam, Dry Chemical etc.
2	2015	Bhilai Steel Plant	Faulty electrical system, Welding, cutting, hot metal, coke, sinter, slag, hit over, friction, self combustion etc.	30	Nil	Fire Extinguishing Service Bhilai Steel Plant	By Water, Foam, Dry Chemical etc.
3	2016	Bhilai Steel Plant	Faulty electrical system, Welding, cutting, hot metal, coke, sinter, slag, hit over, friction, self combustion etc.	34	Nil	Fire Extinguishing Service Bhilai Steel Plant	By Water, Foam, Dry Chemical etc.

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4	2017	Bhilai Steel Plant	Faulty electrical system, Welding, cutting, hot metal, coke, sinter, slag, hit over, friction, self combustion etc.	39	Nil	Fire Extinguishing Service Bhilai Steel Plant	By Water, Foam, Dry Chemical etc.
5	2018	Coke Oven Bhilai Steel Plant Bhilai	Due to catastrophic fire during de-blaking work in coke oven gas pipeline	1	23	Fire Extinguishing Service Bhilai Steel Plant	By Fire Brigade
		Bhilai Steel Plant	Faulty electrical system, Welding, cutting, hot metal, coke, sinter, slag, hit over, friction, self combustion etc.	51	Nil	Fire Extinguishing Service Bhilai Steel Plant	By Water, Foam, Dry Chemical etc.

Table 16: Details of Industrial Fire Accident



Graph 3: Industrial Fire Accidents

Details of Fire Safety Tax							
S.no.	Types of Building	Determined by the Municipal Corporation	Amount recovered in previous years (in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19
1	Residential	200.00 per unit	192.86	197.27	203.34	326.26	329.18
2	Non Residential	200.00 per unit	13.18	13.27	13.36	14.6	14.81
3	Commercial	200.00 per unit	24.99	25.24	26.18	28.19	28.39
4	Industrial	200.00 per unit	1.36	1.36	1.37	1.37	1.38

Table 17: Details of Fire Safety Tax

Incident Month												
Risk	January	February	March	April	May	June	July	August	September	October	November	December
Industrial Fire												
Forest Fire												
Urban Fire												
Rural Fire												
Legend	High Occurrence				Moderate Occurrence				Low Occurrence			

Table 18: Occurrence Calendar

S.no.	Disaster	Likely Period of Disasters	Severity Level	Preparedness/ Monitoring Measures	Time Line	Stakeholders
1	Fire Accident	Round the Year	High	Preparedness Workshop/Meeting	Every Month	Central Agencies: MoEF&CC, NRSC, MoRD, MoRMHA, NDMA, NIDM
				Issuance of Advisory	Regularly (Every Month)	
				Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	
			Medium	Social Media Awareness Campaign	Round the Year	State Agencies Fire Services, Relief Commissioner, SDMA, PHED, PWD, Municipal Corporation
				Review of Preparedness through Video Conference	First Week of Every Month	
			Low	Regular Video Conference	Every Month	
Mid Term Review	First Week of Every Month					
				Preparedness	Second Week	Central

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				Workshop/Meeting	of March	Agencies:
2	Forest Fire	April-June	High	Issuance of Advisory	Third Week of March	MoEF&CC, MHA, NRSC, MoRD, MoRTH
				Print & Electronic Media Awareness Campaign	Third Week of March	
			Medium	Social Media Awareness Campaign	Last Week of March	State Agencies:
			Review of Preparedness through Video Conference	First Week of April	Forest, SDRF, SDMA, PHED, PWD,	
			Low	Regular Video Conference	Every Fortnight	Agriculture, Horticulture,
				Mid Term Review	Second Week of May	Animal and Husbandry Department

Table 19: Fire Accident Calendar

3. Institutional Arrangement

Institutional arrangements for mitigation, rescue, and response to fire accidents play an important role, providing guidance to the administration and public in dealing with fire accidents. The institutional mechanism for dealing with fire accident at the district level, as included in the National Plan, is given below:

- District Disaster Management Authority
- District Fire Service and Home Guard
- Local Self-Government Authority
- District Emergency Operation Center

3.1 District Disaster Management Authority

The District Disaster Management Committee is a foremost planning committee under the District Disaster Management Authority. It plays a major role for preparedness and mitigation. The response at the district level is coordinated under the guidance of the District Collector, who is the Chairperson of DDMA.

3.2 District Fire Service and Home Guard

The State Government has authorized Home Guard as the **District Fire Control Officer** to deal with fire accidents at the district level and provides emergency fire services in the district.

3.3 Disaster Management Committee and Fire Protection Service at Tehsil Level

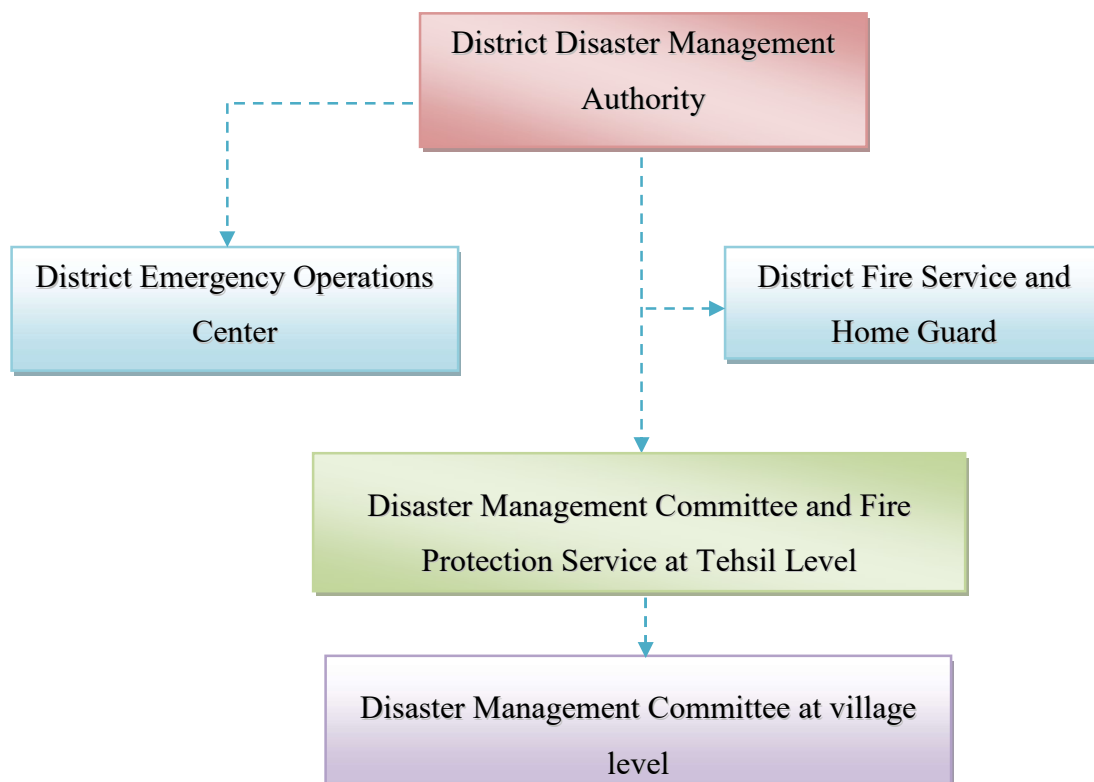
Disaster Management Committee has been constituted at tehsil level to deal with fire accident in tehsil and urban areas, emergency services available to urban bodies are also included.

3.4 Disaster Management Committee at Village Level

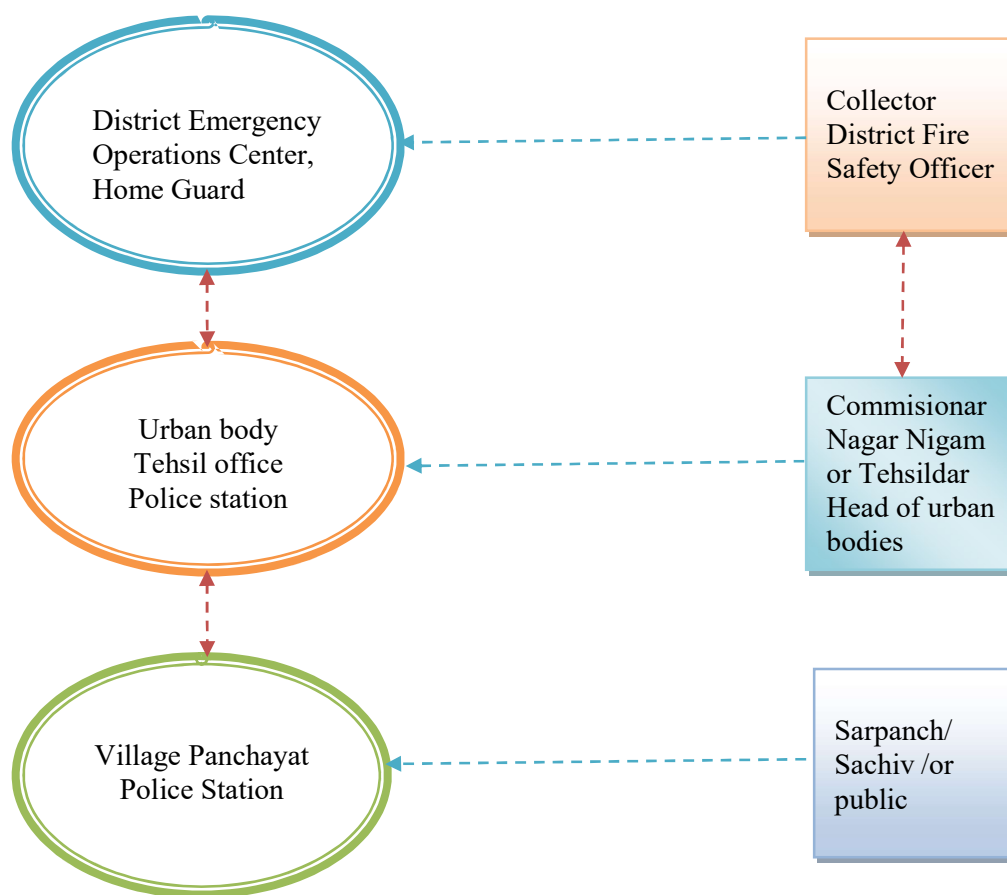
A disaster management committee has been constituted at village level to deal with fire accidents at the village level and to coordinate with the district emergency fire services, fire fighting resources will be provided at the village level to deal with fire accidents.

3.5 District Emergency Operations Center

The DEOC is located in the Collectorate. It is also the focal point for information gathering, processing and decision making to deal with a disaster. Most of the important decisions in this control room are taken in relation to disaster management based on the information collected and processed, it works throughout the year and orders the various departments to execute as per the guidelines during the fire accident. The incident commander takes charge in the district control room which directs emergency operations.



Flow Chart 1: Organizational design framework for firefighting services



Flow Chart 2: Information flow mechanism at the time of fire accident

Arrangements of District Control Room/Center

The District Control Center will have the following arrangements to deal with fire accidents and to establish coordination among various line departments -

- Telephone, satellite phone
- Copy of Disaster Management Plan and District Fire Safety Plan
- Wireless Set
- Conference room
- Walkie-Talkie
- Computer with internet facility
- Other Essential Materials

3.6 Optional Control Panel

An emergency control center has been set up at the district level to deal with any type of fire accident. But, along with the Emergency Control Center, an optional emergency control room is also set up in the District.

4. Prevention and Mitigation Measures

Prevention and mitigation measures play an important role in reducing the risk of fire accident. Measures taken in infrastructure and services come under structural measure whereas measures taken in informative and policy manner come under non-structural measure. Structural mitigation measures are subject to physical weaknesses and non-structural mitigation measures are social weaknesses. Following are some of the features that can be accomplished by doing this: -

- Capacity Building
- Creating Sustainable Development Plan for short as well as long term
- Increase Preparation

4.1 Structural and Non-Structural Mitigation and Prevention Measures

4.1.1 Structural Mitigation and Prevention Measures

Structural prevention applies to structural measures of a building to reduce or eliminate fire damage.

Structural mitigation measures	Implementation agency	Convergence with program/ Plan	Time frame
Installation of sprinklers, fire extinguisher, sand buckets	District fire department, PWD		Once
Installation of fire/ smoke alarms	District fire department, PWD		Once
Provision of proper and wide fire exit with direction signs	District fire department, PWD		Once
Use of fire-proof materials in construction	PWD		Once

Table 20: Structural Mitigation and Prevention Measures

4.1.2 Non-structural Mitigation and Prevention

Non-structural prevention involves the non-structural elements of a building being reassembled. Non-structural elements of a building are those that do not let the building collapse. This includes construction of external and internal elements, electrical, mechanical and pipeline systems.

Non-Structural Mitigation Measures	Implementation agency	Convergence with program/ Plan	Time frame
Preparation of emergency plan	District fire department	District Fire Control plan.	Yearly
Preparation of evacuation plans	District fire department	District Fire Control plan.	Yearly
Fire safety trainings/ education	District fire department, District education department.	Home Guard, Sarv Shiksha Abhiyan	Regularly

Table 21: Non-Structural Mitigation and Prevention Measures

Explosives Act 1884 and Rules 2008

- Manufacture, Storage and Import of Hazardous Chemicals Act 1989
- Factories Act 1948
- Gas Cylinder Rules Act 2004
- Petroleum Act 1924
- Chemical Accidents (Emergency Planning, Preparedness and Response) Rules 1996
- Indian Boilers Act 1923
- Central Motors Vehicle Act 1989

5. Pre-determined Preparations and Measures

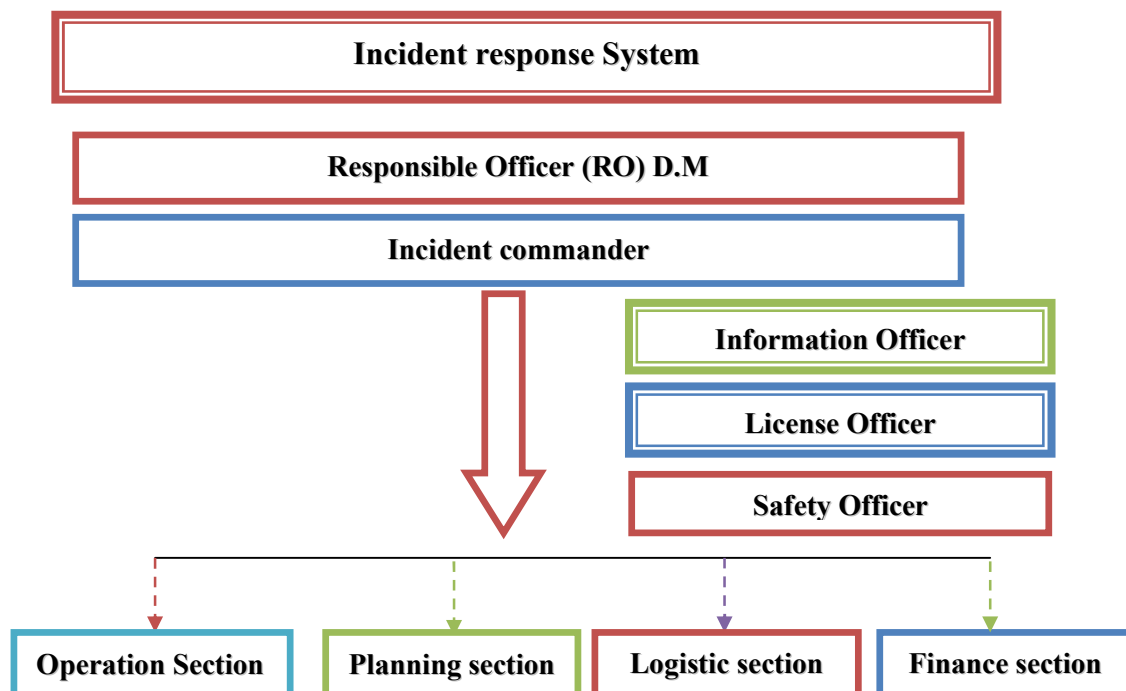
Fire safety management and fire emergency planning is applicable to all premises which are under the control of the company, organization, business name, the employer, owner or principal practitioner. Its requirement extends to all individuals in those premises including employees, visitors and contractors who are permanently or temporarily engaged.

5.1 General Preparations and Measures

5.1.2 Incident Response System (IRS)

The IRS organization works through the region's incident response team. The District Collector, the chairman of DDMA, is the highest official and accountable person in incident response management. The District Collector may entrust his work to another responsible officer as required. If the fire accident occurs in more than one place in the district, then the Collector of that district acts as the incumbent commander.

In response to incident response system, a work operation section, a planning section, a logistic section and a finance section play the role of quick work with the officers and employees in charge.



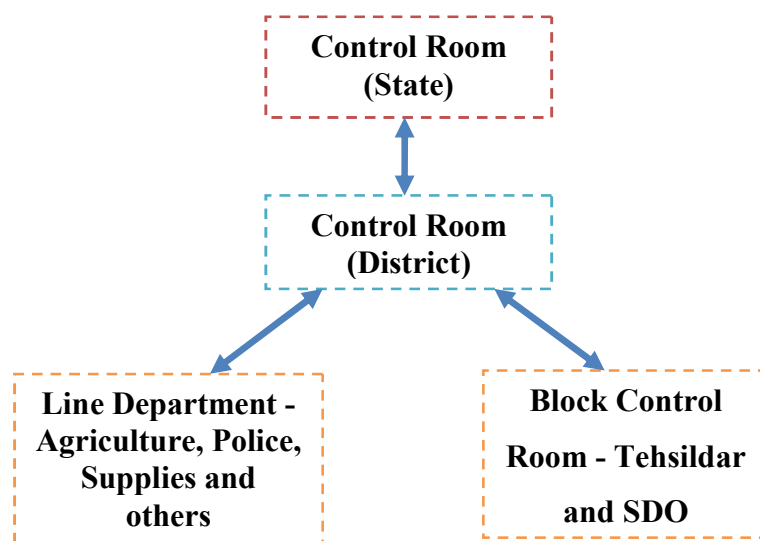
Flow Chart 3: Incident response System (IRS)

5.2 Establishment of Control Room

The control room monitors the dissemination of warnings, monitoring of relief and rescue operations, assessment of preparedness, standard operating procedure (SOP) preparedness. At present, the District Commandant, Municipal Corporation and the Revenue department take care of control room in coordination with other concerned departments.

Preparation of control room for dissemination, relief and rescue operations by the control room-

- Maintaining contact details of all public institutions, NGOs / private sector organization for use during emergency.
- GIS and RS in preparation of plans.
- Use of modern technology like monitoring of sensitive areas records, rescue and relief operations, decision making and managing databases etc.
- Improving and maintaining a list of resources of the district control room system as per situation in the district. Training of various activist and school education and ensuring effective public awareness in communities to ensure that scheme reach the lowest level.



Flow Chart 4: Preparation of Control Room

5.3 Co-ordination Mechanism for Fire Protection

5.3.1 During Pre-Disaster

Fire emergency planning for fire disaster management is based on past experiences as well as suggestions and information given by the district magistrate. The strategy has been developed keeping in mind pre and post disaster experiences. The district consists of sub-divisional and senior level officers of the district who work as regional officers. They are responsible for rescue and relief operations and to daily monitor and evaluate the situation under the guidance of District Magistrate.

Preparation	Objective	Work Initiated
Coordination with District Level Committee	To take precautionary measures in place of fire	District Emergency Operation Centre
Identification of Prone area/ Vulnerable area spotting	Planning and implementing regular mapping of vulnerable area, preventive measures and early warning	District Commandant and Team
Essential items	Oil, Fuel stocks reserve for fire protection	Arranged shelter during the period of emergency
Choose shelter	Arrange shelter during the period of emergency	Relief team/ local people
Relief team	Delegation of personnel, keeping stock of medicines	CMO, Civil Surgeon
Conducting practices	Creating awareness, Training	District Level Officer

Table 22: Co-ordination System during Pre-Disaster Situation

5.3.2 During Immediate Pre-Disaster (Immediate Procedure after Early Warning System)

Preparation	Objective	Work Initiated
Information Collection	From the control room	Line department
Information dissemination	All line department	CSEB Department, Deputy Collectors, Public Relations.
Instant installation and functioning of control room rescue and evacuation	Logistics Supply Identification of Exhaust Shelters	Civil Defense Unit, Police Department, Armed Forces, Fire Officers, Red-Cross team are allotted with rescue kit provided through DEOC
Ensuring the movement of relief material to the affected areas	Ensuring timely access to relief material to the affected people	SDM/SDO/RTO
Ensuring the safety of life and belongings	Prevention of anti-social activities	DSP / Inspector / SI of affected block, NGO
Ensuring availability of health facilities	Relief work	EE P.H.E., CMHO
Meeting of field level officials every 24 hours to review the situation	Better coordination	DM, Deputy Collector, SDM
Collection of information by the main group of EOC and daily reporting of the concerned officials	Triangular relationship between Area, District and State control room	Core group of EOC/ Line Department Officers
Estimated No. of Vehicles - Light / Medium / Heavy	Ensuring smooth transportation for relief operation	RTO

Table 23: Co-ordination System during Immediate Pre-Disaster Situation (Immediate Procedure after Early Warning System)

5.3.3 During Disaster (Relief Distribution System)

Preparation	Objective	Work Initiated
Gets ready for action immediately after the disaster	To rescue injured and persons trapped in the fire accident	All line departments and stakeholders
24 hours functional Control room	To reduce the impact of disaster	District Control Room, All Line Departments, C.E.O.
Relief distribution as per provisions	–	SDM, CEO, NGO

Table 24: Co-ordination System During Disaster

5.3.4 After Disaster

Preparation	Objective	Work Initiated
Proper Relief Distribution	Providing relief and other essential goods	SDM, BDO, CEO, NGO
Damage assessment	Actual damage report to the government	All line departments, CO, Executive Engineer, Deputy Collector
Monitoring and evaluation of relief operations by external agencies	Continuous Relief Administration	DM,SDM
Restoration of road and railway network	Timely and expeditious delivery of relief goods, deployment of rescue teams	EE of the aligned department, Military and Paramilitary Forces, Police
Restoration of Electronic communication system	To ensure proper coordination	BSNL, Police Traffic Signal Specialist
Written, Audio, Video event	For reporting purposes and institutional memory	SDM, CEO
Surveillance	To review relief operations and to remove obstacles	DM, DC, SDM , District Commandant

Table 25: Co-ordination System After Disaster

6. Capacity Building and Training Measures

6.1 Capacity Building

According to DM Act (2005), capacity building includes –

- Identify existing and stored resources,
- Organizing training for effective management to deal with disasters.

Capacity promotion or capacity building is an important part of fire disaster management. The primary objective of capacity building in disaster management is to reduce risk and thus makes communities safer. Capacity building refers to an increase in the ability of an individual or group of people, which is made possible by specific measures to achieve certain goals. Effective capacity building at the district level requires active participation of all those who are associated with it. Therefore, it should include maintaining a comprehensive and innovative district disaster management resource list, awareness generation, education and systematic training. A person trained in relief and rescue operations at the time of a disaster can react with more efficiency than an untrained person.

The District Collector should ensure the following capacity building activities of the entire district, and various heads of departments should ensure capacity building of their respective departments. In addition, related equipment for disaster management activities should be procured by the nodal officer of major departments.

6.2 Institutional Fire Capacity Building

Institutional fire capacity building will be protected at a level system that will be designed to bring skills officers and professionals from many areas at the district level. The DDMA will utilize the capabilities and expertise of representatives from the following areas structured as a level of priority.

The Chhattisgarh Academy of Administration (CGAA) takes responsibility at the state level for conducting training programs on disaster management in all districts of Chhattisgarh. The training lasts for three to five days and district officers of various departments are involved as per the training specifications.

Apart from these, assistance of other district level institutions such as colleges, schools, ITIs, industrial training, institutes, NGOs, etc. will be taken for training so that these management

programs can be made available to maximum people.

6.3 Indian Disaster Resource Network (IDRN)

IDRN is a web-based information system for inventory management, efficient human resources and critical supply management for emergency response. The primary center is to enable decision makers to find answers on the availability of equipment and human resources necessary to deal with any emergency. This database will enable them to assess the level of readiness for specific vulnerabilities.

Each user of all the districts of the state has been given a unique username and password through which they can update data and do data entry in IDRN for the resources available in their district.

6.4 Roles and Responsibilities

Department	Roles and responsibilities of department heads
DDMA	<ul style="list-style-type: none">• To set up fire relief camp and ensure that the basic need of the victims are met.• A member of the district's incident response team trained in the operation and management of fire relief camp will be appointed to manage the camp.• On receiving the warning signal, adequate rescue equipment should be sent immediately to the affected area.
Education	<ul style="list-style-type: none">• Damage and need assessment, training and formation of teams in the department.• Arrangement of training in first aid and basic survival skills for teachers and students in the district.• Education and awareness programs to be included in the curriculum.• School Safety Capacity building at the institutional level should be promoted by carrying out various activities under the program (SSP).
CSEB	<ul style="list-style-type: none">• Ensure timely procurement of fire-related electrical equipment through appropriate channels of district administration to maintain adequate preparedness and for quick and efficient disaster response.

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Fire services	<ul style="list-style-type: none"> • Ensuring fire safety training and training programs on disaster management from time to time for all district officers. • Ensuring safety audit of various government and civil buildings to check whether they confirm to fire safety norms. • There should be regular mock-drills for fire fighting and evacuation procedures.
Civil defence and Home guard	<ul style="list-style-type: none"> • Training for volunteers in search and rescue (SAR), first aid, traffic management, dead body management, evacuation, shelter and camp management, public care and crowd management. • Make arrangements for procurement of search and rescue equipment through appropriate channels of district administration.
RTO	<ul style="list-style-type: none"> • Provision of training to drivers, conductors and employees in first aid and basic life saving techniques. • To ensure adequate stock of first aid kits and maintenance of fire extinguishers in all vehicles and depots in the district.
Health	<ul style="list-style-type: none"> • Damage and need assessment, training and formation of groups in the department. • Training for Mobile Medical Group, Psychological First Aid Group, Psycho-Social Care Group and Paramedics Quick Response Medical Group (QRMT). • Arrange for timely procurement of portable equipment for field and hospital diagnostics etc. • To ensure the training of members of local communities for health and sanity. • Increasing capacity building at the institutional level by various activities related to capacity building and training measures.
Police	<ul style="list-style-type: none"> • Deployment of trained city soldiers under District Disaster Management. • To conduct training for police personnel to deal with various situations for capacity building in the district.

Table 26: Roles and Responsibilities of Major Departments

6.5 Training and Training Provisions

Identification of the need of any training and how it will be provided should include the following-

- Employees identified as trained ones in the use of fire equipment.
- Identified as an employee trained in the use of fire panels.
- Identified as employee trained for fire marshal duties.
- Staffs are identified to register visitors at the assembly points.
- Employees identified as having specific duties for the type of evacuation.
- The method of ensuring everyone makes understand when fire alarm is operated.
- There is sufficient instruction and training for fire evacuation to ensure all.
- The way to ensure visitors contractors has sufficient information on procedures in the event of an emergency evacuation.

6.5.1 Training for Fire Safety Team Members

Enhancing capacity, training and skill development of disaster management committees is important. The FST consists of a group of members, consisting of male and female volunteers. Training should be a regular procedure for fire safety risk reduction and mitigation planning. The FST is assigned special tasks at the district level for search and rescue and first aid team in the event of a disaster.

6.6 Community Based Fire Safety Management

The community is the first to be responsible in any disaster along with being victim. Any calamity can be prevented with community capacity. Therefore the community should be closely associated with prevention, mitigation, preparedness, training, capacity building, response, relief, recovery i.e. short term and long term rehabilitation and reconstruction aspects.

7. Fire Safety Relief Measures and Response

Fire service setup in any district is mainly based on population, response time and risk hazard analysis. In the absence of risk hazard analysis, it would be inappropriate to decide on the equipment required at a fire station. Special equipment related to fire services should be based on correct assessment of potential damage. However, there is a fixed set of equipment, which every fire station must essentially have. The plan also needs to be continuously reviewed on the basis of increasing threats and thus it needs to be made dynamic.

7.1 Relief and Response Phases

Pre-requisite Preparation Before Fire accident	Essential Preparation and Warning System
During Fire accident	First Response - Relief
After Fire accident	Relief

Table 27: Relief and Response Stages

7.1.1 Before Fire Accident

- Name and contact detail of Fire Security officer.
- Fire protection Mock drill.
- High alert of First Response Unit
- One-stop centre for availability of firefighting equipment, renovation and repair work.
- To fix up communication system.
- Stock up adequate water, medicine and other essential material.
- Identification of vulnerable area, car-motorcycle parking etc.

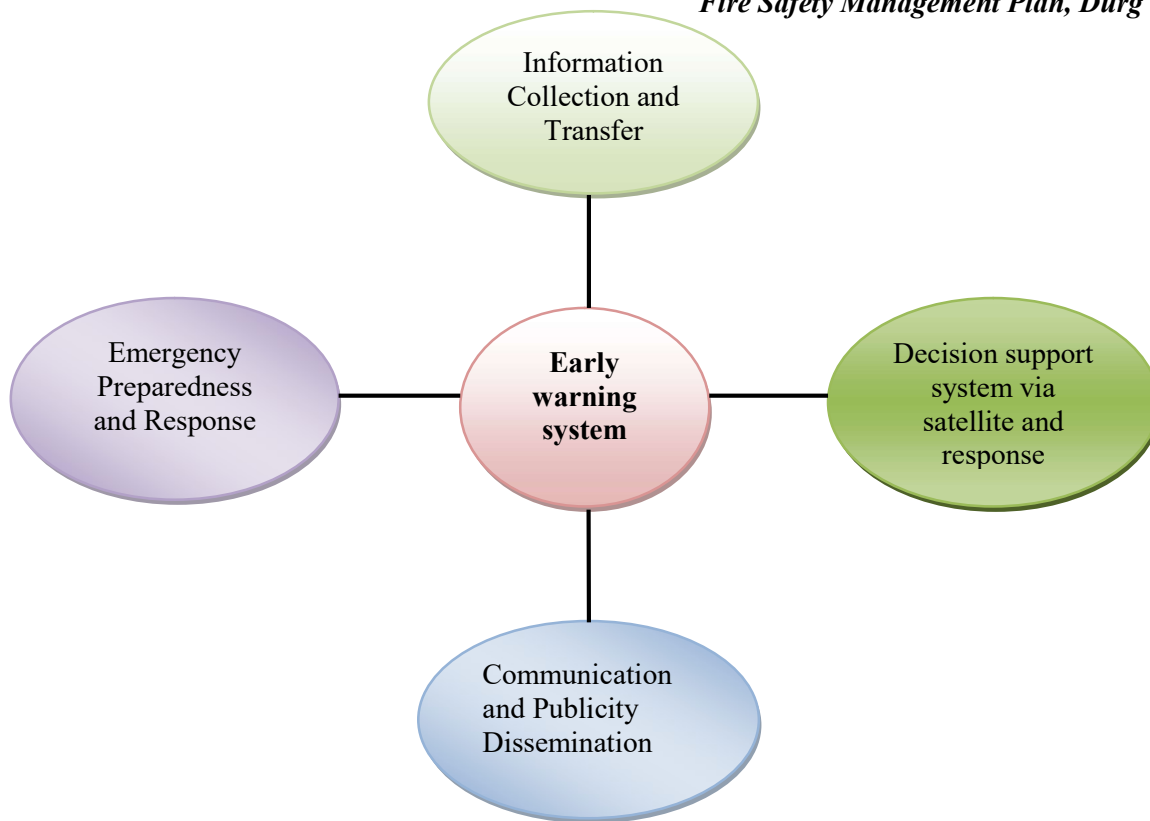


Fig.4: Early warning system

7.1.2 Relief and Response During Fire

- Immediate assistance from Firefighting Service and Fire Station.
- Action of First Response Unit.
- Search and Rescue Team Action.
- Activation of State Government and District Administration.
- Acquisition of cranes, bulldozers and other resources as required.
- Transport arrangement for shifting victims to shelters and hospitals.
- Maintaining peace.
- Supply of relief supplies..
- Damage assessment after fire accident.
- Immediate relief for fire accident victims.

7.1.3 Implementation of Relief and Response Second Phase in the Context of District

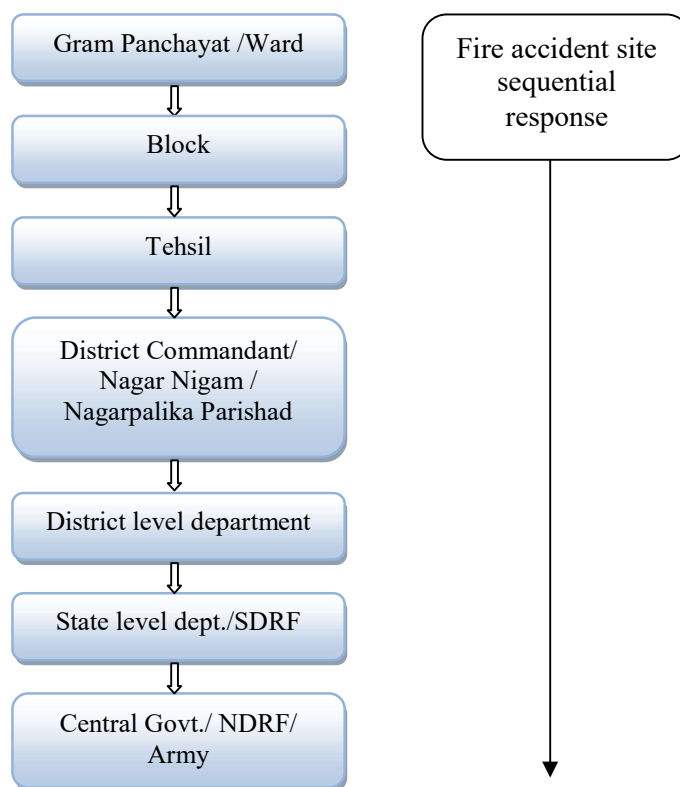
First community response

Community acts as the first responder during sudden fire accident. It is necessary to train the

communities residing at and around the various vulnerable places in the district to act as first responders during fire accident. For this their training and capacity building is necessary.

Activation of State Government / District Administration –

After the community, the responsibility of giving first response is of Gram Panchayat, Block, Tehsil and Municipality / Council. If needed, cooperation from the state and the center can also be taken. The various stages of the administrative response system are as follows -



Flow Chart 5: Stages of Administrative Response System

L – 0	This is the normal level of fire accident that involves pre-preparation.
L – 1	This will be the level of fire accident that can be managed at the District level itself.
L – 2	This will be the level of fire accident that is managed in collaboration with the State level.
L - 3	This will be the level of fire accident which will require the Central Government and National and International Cooperation.

Table 28: Stages of IRTF (Incidence Response Team Framework)

7.1.4 Relief and Response Status after Fire Accident

After any fire accident in the district, the following stages of relief and response will be executed-

- Detailed loss assessment - An assessment will be done Secretary, Patwari, Kotwar, and Sarpanch of the loss made by the fire accident through district administration at the local level. Through this, financial need can be estimated for rehabilitation of affected people and restoration of infrastructure. The disaster management department will also keep a record of the losses due to the disaster, as well as the reasons for the shortcomings in the disaster management, etc. So that experiences can be used in future.
- Rehabilitation of the affected people.
- The biggest problem is rehabilitation after fire accident-
 - Providing appropriate financial assistance by the state government.
 - Implementing standard in respect of fire accident safety by the State Government.

8. Reconstruction and Rehabilitation Measures

8.1 Reconstruction and Rehabilitation

People need rehabilitation after the fire accident. This will help people to become normal from trauma, wherein mental and emotional strength are also provided to those who are afraid and frightened from the incident.

Reconstruction and Rehabilitation are needed in the following field-

- Fire affected Buildings and houses,
- Financial Property (includes commercial and agriculture activity etc),
- Health care facility.

Human loss, Animal loss, House loss, Crop loss, etc. are caused by the fire accident. Hence Reconstruction and Repair work is required after fire accident.

8.2 Recovery Activities

8.2.1 Short-term recovery

The short-term recovery phase begins immediately during the fire accident. Its main purpose is to re-establish necessary structural and non-structural facility. Short-term recovery includes-

- Fire Fighting Equipment
- Communication Network
- Rehabilitation
- Supply of Drinking Water
- Health Care Facility
- Food and Clothes
- Shelter and Houses

8.2.2 Long-term recovery

Long-term recovery includes socio-economic redevelopment and re-establishment of fire affected areas. The following efforts will be made in the future because of fire accident-

- Long term reconstruction of Public basic infrastructure and social services damaged by fire accident.
- Fire fighting Training and Excellence.
- Availability of modern firefighting equipment.
- Posters and Advertisements for prevention from fire accident in Parks, Cinema halls, Malls etc.

8.3 Reconstitution (Support)

In this way, after loss assessment by the District Collector, necessary and appropriate guidelines will be provided to the departments in charge and responsible persons. Separate departments work as nodal departments for restoration and reconstitution.

Work / Restoration	Nodal Dept
Rescue	Municipal Army / Municipality / Municipal Corporation
Medicine	Medical Department
Education	Education Department
Telecommunications	District Telecom Department
Drinking Water	PHE Department
Debris removal	Municipality / Council / Corporation

Table 29: Restoration and Reconstitution with Nodal Department / Officer

Necessary services are included in restructuring or rehabilitation. The services covered under this can be divided into two parts –

- **Basic services** - Basic services include water supply, medical etc. These services should be restored at the earliest. This work is possible with the help of concerned departments, special agencies and NGOs. Measures to ensure water supply from tankers, construction of temporary tanks, etc. will be implemented in the district. After the disaster, the assistance of the Municipal Council and private agencies will be taken for the removal of debris with the help of JCB and tractor.

- **Essential services** – These are the lifeline services such as Medical, Communication, and Transportation etc. Restoration of these services is very important because relief work depends on this. Basically social system depends on how soon the basic necessary services are restored because failure of such services leads in disorder, riots and migration. On the order and recommendation of District collector- Power distribution board, Telecommunication department and RTO department should be made Nodal department for electricity, telecommunication and transportation which will form cordial relation with the other departments and work.

9. Financial Resources for Fire Accident Planning

9.1 Availability of Financial Resources by the Central and State Government

The policy and funding process are clearly included in the projects to help the victims of fire accident. The Finance Commission appointed by the Government of India conducts a revision every 5 years. On the basis of the recommendations of the Finance Commission, a Calamity Relief Fund has been set up in every state; the size of the Calamity Fund is determined by the Finance Commission with 75 per cent contribution from the Central Government and 25 per cent from the State Government.

According to the approaches of 13th Finance commission and National Disaster Management Act (2005), Calamity Relief Fund was renamed as State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF) in 2010-11 and State Disaster Mitigation Fund (SDMF) also came into existence. District Administration is the main agency for loss assessment and employees of other departments like Revenue, Home, Health, Animal Husbandry, Forest, PHE, PWD, Medical, Women and Child care are also involved.

9.2 Funds for Capacity Addition

To augment the capacity of the administrative system in disaster management, the Central Government has made a provision of giving 4 crores annually for 5 years (from financial years 2010-11 to 2014-15). This money will be spent on programs and radio, print, electronic media for public awareness training and production and dissemination of IEC material mentioned in Chapter 6.

9.3 Other Funding Arrangements by the State

Apart from the above provisions, State also has a fund named Chhattisgarh Relief Fund, in which there is an initial provision of Rs 6 crore, and in upcoming years 25 Lakh will be added annually to this, which will be used for rescue and relief work of the victims.

9.4 External Funding Arrangements

So far there is a provision to raise funds only for some projects from outside agencies like UN agencies.

9.5 Financial Provisions

Budget are allotted from the Central and State government to provide assistance to the victims of disaster. The funds are provided by the Central government for disaster relief under two heads.

9.6 Disaster Relief Fund

Under Disaster Relief Fund, the amount for relief is provided by the Central Government from 21.12.2010 to the states under the recommendations of the Finance Commission to provide assistance during notified natural calamities. In which 75% is contributed by the center and 25% by the state government, the center has issued detailed guidelines for the usage of disaster relief fund.

9.7 National Disaster Contingency Fund

When the situation of dealing with disaster goes beyond the capacity of state government disaster relief fund Central government provides funds from the National Disaster Contingency Fund. For this, a detailed advertisement is sent by the state to the Central Government, on which the situation is assessed by a central party. The amount is sanctioned by the Central Government from the National Disaster Contingency Fund based on the report of the Central Team.

9.8 State Disaster Response Fund

State Disaster Response Fund has been created in the state in compliance with the recommendation of the 13th Finance Commission and the Disaster Management Act. In the State Disaster Response Fund, the contribution of Center is 75% and of State is 25%. This fund will be used only for immediate assistance etc. as per the set criteria at the time of disasters.

9.9 Other Provisions of Finance

Finance for the disaster management Prevention, Preparation, Rehabilitation and Reconstruction will have to be arranged in a planned head under the departmental scheme. For disaster preparedness, the state government will ensure to make provision for disaster management in the departmental budget every year.

Apart from this, financial tools like risk insurance will also be promoted under Disaster Management and schemes like Crop Insurance Scheme, Self Help Group will be developed. It will be the responsibility of the unit concerned to prevent disasters in industrial and commercial units and the damage caused by disasters.

9.9.1 Financial Sources of District

Although extensive financial support is required at the time of disaster, this is usually not possible at the district level. Nevertheless, its arrangement is necessary at the district level for immediate assistance. For this, two types of relief fund will be created at the district level.

10. Inspection, Evaluation and Up-gradation of Fire Protection Plan

10.1 Evaluation of the plan

Evaluation of the effectiveness of the Fire Safety Management Plan includes training programs, exercises, post-fire questionnaire etc., as a result there will be timely effective response of the goals, objectives, decisions mentioned in the plan.

- Home guard, NDRF, SDRF and other agencies should be regularly integrated into planning and practice.
- Regular review of plan implementation.
- To check the efficiency of the plan after any major fire accident in the district and amend the plan accordingly.
- Connection of plan to Indian Disaster Resource Network (IDRN) and timely updation.
- Updation of responsible personnel and their role half-yearly / yearly or whenever change occurs. Regularly updating the name and contact details of the resource in-charge or nodal officers.
- The plan should be disseminated to all stakeholder departments, agencies and organizations so that they know their roles and responsibilities and formulate their plan.
- To test the efficacy of the plan and to check the preparedness level of various departments and other stakeholders by regular exercises. This will ensure that all parties clearly understand their roles and responsibilities and understand the size of the population and the needs of vulnerable groups.

10.2 Responsibility of Maintenance, Review, Monitoring and Updation of the Plan

The implementation of Fire Safety Management Plan depends on at what level the system mentioned in the plan is being used at the ground level. There will be various levels in the inspection and updation of the plan which will be presided over by the District Collector. This authority will include Disaster Management Authority in-charge, CEO-District Panchayat, Superintendent of Police, District Commandant-Nagar sena, Municipal Council Commissioner/ Municipality President, Chief Medical and Health Officer, Executive

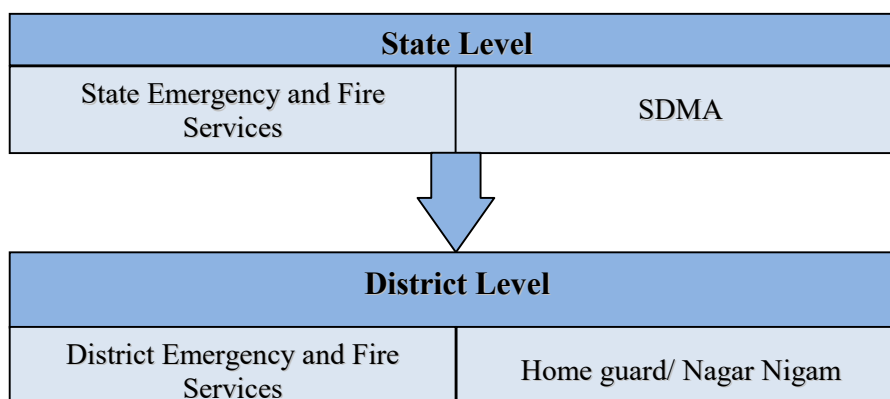
Engineer-Water Resources Department, subject matter experts. It will be an 8-10 member authority wherein the District Collector will have the right to determine the number of members.

10.3 Media Management

In case of fire accident, media reporters assess the external situation but it also gives rise to rumors. Therefore arrangements are made by the district to control the situation. In the event of a disaster, only the PR office in the district level will communicate with the media and provide summarized data, no other parallel agency or ESF or voluntary agency involved in disaster management will give any type of press briefing.

11. Co-ordination and Coordinated Mechanism for Implementation

Necessary efforts will be made for better coordination between all departments and agencies at the time of fire accident in the district. The district will keep a synergy at the center and state level in the past which is important. For coordinated implementation of the plan, the system from center to local level is as follows-



Flow Chart 6: Integrated mechanism for fire accident implementation

11.1 Co-ordination with Neighbour Districts

Each district is not resourceful and efficient in the context of a fire accident. External assistance may also be required at every moment during a fire accident. Durg district is a district with odd conditions. A list of available resources in nearby districts and tehsils will be kept at the Durg district headquarters for such inaccessible areas. So that help can be sought if necessary. Here is a list of such districts which are nearby and help can be sought immediately at the time of disaster.

Area	Nearest District
Durg	Balod, Rajnandgaon
Dhamdha	Bemetra, Raipur
Patan	Balod, Raipur, Dhamtari

Table 30: Neighbour Districts

12. Standard Operating Procedures and Checklists

12.1 Standard Operating Procedures

A fire accident is a major disaster according to risk analysis. Districts are prone to other common disaster like forest fire also. Since a large number of people congregate at the Mela (Mandai) in the district, there is a possibility of chaos which may result in stampede, fire accidents during the festival. These standard operating procedures are proposed to deal with such fire accidents so as to reduce fire accident risk and increase safety.

- Exit from the stairs in case of fire in the building, do not use the lift. For help, contact the Fire Fighting Rescue Department **Common Police Control No. (112)** by telephone. Call a fire prevention rescue department during a fire accident and escape the building/apartment premises from the nearest available exit. If your clothes are on fire, don't panic, **Run, Stop and Roll.**
- **Cover the mouth and nose with a wet cloth**
To avoid smoke and suffocation cover the mouth and nose with wet and clean cloth. Never try to climb on the side of a tall building and do not jump as death may occur.
- **Don't run**
During a fire, toxic gases such as carbon monoxide (CO) are in the smoke. When you run into a room full of smoke, you inhale the smoke rapidly. CO dulls the senses and prevents clear thinking to avoid this cover the nose and mouth with a wet clean cloth.

12.2 Precautionary Measures and Checklist for Fire Accident

To increase the level of security in hospitals, colleges, government offices, commercial buildings, etc., the installation of smoke alarms or automatic fire detection / alarm systems will be proposed as an early fire warning to the residents. It is proposed to prevent fire accidents and activities during this to manage emergencies and take precautions.

- For all residential buildings emergency evacuation plans or important plans will be prepared as per the fire and safety rules.
- Regular mock drill exercises will be conducted to create awareness about evacuation procedure.
- Especially it would be advisable to keep fire extinguishers, medical kits and masks.

- Listen to radio and messages broadcasted by various media to keep updated with the latest information.
- Follow the official instructions given by the radio or loudspeaker in terms of fire accidents.
- Keep a family emergency kit ready. In various kinds of emergency situations, it is better to be prepared, to get information and organized and to carry out rescue operations very quickly.
- Stay away from doors, windows, and electrical conductors during storm, unplug electrical appliances and televisions. Do not use any electrical equipment.
- In extreme conditions, the Army and Air Force conduct rescue operations. They clean the streets, send medical teams and help people to shift to safer places. The Air Force drops food, water and clothes to the affected areas. Organizations like the United Nations provide assistance during large-scale disasters.

12.3 Checklist for Various Line Departments (SOP)

Department	Checklist
D.D.M.A	<ul style="list-style-type: none"> • Regular monitoring in all tehsils and updation of databases for distribution and variation in fire relief. • To establish Fire Control Room and to ensure proper mechanism for early warning at village level through Tehsildar, Sarpanch, Patwari etc. • Ensure proper functioning of DEOC with fully functional resources and availability of fire safety equipment. • To prepare important and life-line basic infrastructure databases, safe shelters for evacuation and annually updated list of fire relief camps in the district.
Education	<ul style="list-style-type: none"> • Organize awareness generation program in schools and colleges for students, teachers, administrative staff and other assistants. Dos and don'ts during different danger situation and safe evacuation in fire emergency. • Preparation of fire disaster management and first aid kits in every school and college.

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	<ul style="list-style-type: none"> • Identification of schools and colleges functioning as relief shelters in case of fire emergency.
C.S.E.B	<ul style="list-style-type: none"> • To create a database of important basic infrastructure in the district and prepare them to provide uninterrupted power supply. • Provision for continuous power supply and for immediate replacement/ power supply system in the affected area. • To provide electrical connections and systems on short notice in the affected areas for the purpose of fire exhaust and lighting. • To ensure availability of adequate stock of critical equipment like transformers, poles, conductors, cables, insulators etc.
Fire services	<ul style="list-style-type: none"> • To ensure the functionality and availability of firefighting and respiratory equipment. • To ensure availability of clear and proper sketched maps and marked evacuation routes with signs in all important buildings like schools, hospitals, apartments, recreational areas, malls, cinemas, regular evacuation exercises as per evacuation plans etc. • To create a database of existing fire extinguishing services and facilities provided with private agencies and fire stations.
Forest Dept.	<ul style="list-style-type: none"> • To ensure proper functioning of fire safety equipment and vehicles. • Inspection of criminal incidents in restricted forest areas. • To prepare an evacuation plan for animals during forest fire. • To prepare teams to catch wild animals so as to prevent them from entering living areas, relief camps, etc.
R.T.O	<ul style="list-style-type: none"> • To ensure proper functioning of vehicles and equipments including fire extinguishers, first aid kits etc. • To prepare a mechanical team for quick repair of equipment and vehicles; check the availability of trained drivers and conductors for first aid and basic life saving techniques. • To identify vehicles for fire rescue operations and prepare for quick deployment of vehicles for various purposes like large scale evacuation, transport of response teams, relief items, victims etc. • To create a database of private fire extinguisher vehicles available with

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	schools, colleges and other private agencies, so that it can be used for the purpose of evacuation, if necessary.
Health dept.	<ul style="list-style-type: none"> • To prepare a team of paramedics to keep trained medical teams at fire emergency sites and the materials needed for health care ready. • To ensure availability of portable supplies including adequate space for storage of medicines, availability of stock of medicines, survival equipment and portable oxygen cylinders, portable X-ray machines, portable ultrasound machines, triage tags, etc. • To create a database of doctors registered with Indian Medical Association (IMA), private hospitals and nursing homes that are available with services and facilities and update it annually. • To create a database of ambulance services available from the Government, private agencies and District Rotary/ Lions Club, if any. • To prepare for quick temporary hospitals, mobile surgical units, etc. near the fire affected area.
Nagarpalika	<ul style="list-style-type: none"> • To prepare for sanitary operations post-fire conditions in the area. • To prepare a fire plan for proper solid waste management in fire shelters, food centres and affected areas. • To check the availability of ambulances and other necessary equipment. • To prepare a plan for control room and to allot building/guest house at various places for medical or shelter during fire emergency.
Police	<ul style="list-style-type: none"> • To develop a mechanism for early warning of various threats by police stations and police. • To check the availability of guards at tourist places, annual exhibition and Kumbh Mela where there is a possibility of stampede by fire. • To establish temporary wireless system between district and tehsils in case of any damage to existing wireless system in the department. • Train the communication branch of the police to set up a control room at the site required on short notice. • To prepare contingency fire plans for emergencies, other law and order.

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	<ul style="list-style-type: none"> • To prepare the deployment plan of Home Guard and other volunteers to protect the property of the affected community. • To train police personnel and employees of PCR vans in first aid and basic life saving techniques. • To provide protection to avoid theft and false claims of dead bodies by fire. • To arrange rescue and safety in fire emergency/affected areas, hospitals, medical centers, and food centers. • To keep handy telephone numbers and databases of the reserved battalions of police, BDS and dog squad in the police control room. • To make a team trained in search and rescue, first aid, firefighting etc.
Public relation	<ul style="list-style-type: none"> • To ensure delivery of information, education and communication (IEC) content for community awareness. • To design a proper public relations system to ensure rumor control. • Media management for information dissemination to the public from time to time, keeps a database of emergency liaison department/personnel ready. • To keep a database of dos and don'ts at the time of all possible fire hazards in the district. • Disseminate information through books, magazines, radio, television, film shows, newspapers, documentary films, meetings etc.
P.W.D	<ul style="list-style-type: none"> • To create a data base of availability and functioning of heavy fire equipment such as cranes, JCBs. • To ensure debris clearance, repair of damaged roads, repair of bridges, culverts and flyovers. • To prepare plans like construction of new temporary roads to divert traffic from the affected area, temporary facilities like doctors on short notice, temporary shelter etc. • Immediate installation of helipad near the affected site for V.V.I.P. To ensure restoration of damaged government buildings during the disaster.

Table 31: Checklist for Various Line Departments (SOP)

12.4 Emergency Response Resources

- a. Expert resources
 - Fire rescue team
 - Firefighting equipment

- b. Manpower

- c. Medical Assistance
 - Ambulance (with emergency medicines)
 - Doctor
 - Nurse

- d. Law and Order Agencies
 - Police / Nagar Sena
 - SDRF / NDRF
 - Army / Air Force (if required)

- e. Other requirements
 - Water storage tank
 - Temporary shelter with sanitation facilities
 - Temporary common kitchen or food packets.

12.5 Assistance from Central / State Government

S.no.	Work	Department	Standard Relief and Rehabilitation
1	Evacuation (Residential and Commercial Buildings)	Police, Municipal Corporation	<ul style="list-style-type: none"> • Immediate evacuation of hazardous buildings. • Transportation of persons and essential commodities to safer places.

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			<ul style="list-style-type: none"> • Provision of temporary safe accommodation for displaced people.
2	Search and rescue	Police, NGOs, NSS, NCC, SDRF, Home guard	<ul style="list-style-type: none"> • To save and evacuate people in distress. • Save endangered animals. Search for missing persons.
3	Security cordon of the affected area	Police, Home guard, SDRF	<ul style="list-style-type: none"> • Security cordon at the affected site to avoid untoward incident so that crowds can be kept away from the disaster site.
4	Traffic Control	Police, Traffic-police, NGOs	<ul style="list-style-type: none"> • Not to let vehicles come around the affected area. • Arrangements for speedy transportation of vehicles indulged in relief work. • Arrangement of vehicles as and when required.
5	Law and order	Police, Home guard, SDRF	<ul style="list-style-type: none"> • A system to prevent stampede etc. at the time of disaster. • Stop rumors. • Stop rioting and looting. • Protection of life and property of the affected.
6	Salvage of dead bodies	Health Dept., Police, Municipal	<ul style="list-style-type: none"> • Immediate displacement of dead bodies to avoid epidemics and

		Corporation	<p>pollution.</p> <ul style="list-style-type: none"> • Arrangement of last rites of dead bodies. • Arrangement of post mortem of dead bodies in case of chemical or biological or epidemic. • Information to the relatives about the dead people.
7	Debris disposal	Police, Municipal Corporation, Administration, SDRF	<ul style="list-style-type: none"> • Removal of debris for reinstatement of essential services. • Putting debris in proper place. • Careful removal of debris so that valuable items and dead bodies are not damaged.

Table 32: Standard Relief Level and Rehabilitation

12.6 Emergency Contact List

Details of Officers and Employees associated with Fire and Emergency Services at the State Level				
S.no.	Name	Designation	Office Address	Contact No.
1	Ashok Juneja	Additional Director General	Nagar sena, Fire Control and Emergency Services, C.G. Atal Nagar, Raipur	0771-2512306
2	G S Darro	Deputy Inspector General		0771-2249100
3	Parvej Qureshi	ASP, Fire		0771-2512342

Table 33: State Level Emergency Contact List

Details of Officers and Employees associated with Fire and Emergency Services at the District Level				
S.no.	Name	Designation	Office Address	Contact No.
1	S. D. Vishwakarma	District Homeguard	Homeguard Office, Durg	9977820449
2	Dhannu Ram Yadav	Driver (Regular)	Homeguard Office, Durg	8349524206
3	Mukhtar Ali	Fireman (Regular)	Homeguard Office, Durg	9479053050
4	Narottam Singh Tandan	Fireman (Regular)	Homeguard Office, Durg	9009949739
5	Ramnath Kurre	Fireman (Regular)	Homeguard Office, Durg	9303084749
6	Bhagwati Banjare	Fireman (Regular)	Homeguard Office, Durg	8889312025
7	Santosh Madhariya	Fireman (Regular)	Homeguard Office, Durg	9479053049
8	Sharad Kumar Meshram	Fireman (Regular)	Homeguard Office, Durg	8878807260
9	Ashok Kumar Singh	Fireman (Regular)	Homeguard Office, Durg	9479053052
10	Umashankar	Fireman (Regular)	Homeguard Office, Durg	9589586108
11	Hariom Gupta	Fireman (Regular)	Homeguard Office, Durg	9479053046
12	Mohan Rao	Helper (Regular)	Homeguard Office, Durg	9713173758
13	Vijay Chaturvedi	Driver (Placement)	Homeguard Office, Durg	9926125278
14	Ghanshyam Yadav	Driver (Placement)	Homeguard Office, Durg	9165227826

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15	F. Praveen Bara	Driver (Placement)	Homeguard Office, Durg	9993251610
16	Mahendra Kumar Chandel	Driver (Placement)	Homeguard Office, Durg	7389795174
17	Manoj Sonwani	Fireman (Placement)	Homeguard Office, Durg	8965842981
18	Jagendra Markande	Fireman (Placement)	Homeguard Office, Durg	9770878739
19	Nageshwar Markande	Fireman (Placement)	Homeguard Office, Durg	8305463403
20	Shailendra Kumar Deshmukh	Fireman (Placement)	Homeguard Office, Durg	7898803068
21	Kuleshwar Singh	Fireman (Placement)	Homeguard Office, Durg	8519067220
22	Dhamendra Banjare	Fireman (Placement)	Homeguard Office, Durg	8251991805
23	Tikendra Sahu	Fireman (Placement)	Homeguard Office, Durg	8602769843
24	Parag Bhosle	Fireman (Placement)	Homeguard Office, Durg	8871688127
25	Avtar Singh	Fireman (Placement)	Homeguard Office, Durg	7987458995
26	Praveen Kumar Sinha	Fireman (Placement)	Homeguard Office, Durg	8982996015

Table 34: District Level Emergency Contact List

Municipal Corporation-Fire and Emergency Control Services			
S.no.	District	Address	Contact No.
1	Durg	Municipal Corporation Office, Bhilai, Charoda	Shri Hemant Sahu (Sub-Engineer) - 9285506705

			Shri Harish Yadav (Assistant Sub-Engineer) 9285506654
2		Municipal Corporation Office, Bhilai	Disaster Management Cell 0788-2296212
3		Municipal Council Jamul	9753433470
4		Municipal Council Kumhari	07821-247029

Table 35: Municipal Corporation Emergency Contact List

List of Fire and Emergency Support Services available in the District Operational Industries				
S.no.	Tehsil	Industries name	Availability of fire services	Contact No.
1	Durg	Bhilai Steel Plant	Yes	9407981865
2	Durg	ACC Cement, Jamul	Yes	9752599835
3	Durg	J.P. Cement, Bhilai	Yes	8966909247
4	Dhamdha	J.K. Lakshmi Cement, Ahiwara	Yes	8966909283

Table 36: District Operational Industries Emergency Contact List

List of Fire Support Services available in Nearest Neighbour Districts			
S.no.	Nearest Neighbour District	Availability of fire services	Contact No.
1	Raipur	Yes	0771-2224677
2	Rajnandgaon	Yes	07744-224901
3	Bemetara	Yes	9340672204
4	Balod	Yes	9993397007

Table 37: Neighbour District Emergency Contact List

Details of Fire Specialist or Trained Home Guards					
S.no.	Home guard No.	Designation	Name	Contact No.	Training Expertise
1	172	Homeguard	Dalaram Sahu	9752503664	Fireman basic training received by Bhilai Steel Plant and Bhilai Fire Department
2	239	Homeguard	Tularam Dhurve	7389523416	
3	221	Homeguard	Poshan Dewangan	9981199390	
4	396	Homeguard	Divhaar Singh	9753280896	
5	33	Homeguard	Rakesh Singh	9340315358	
6	156	Homeguard	Ashok Kumar Yadav	8959370400	
7	115	Homeguard	Rupendra Kumar	7000954032	
8	53	Homeguard	Nitin Kumar	9098467434	
9	197	Homeguard	Thaneshwar Prasad	9752895308	
10	204	Homeguard	Sharda Prasad	7722905403	
11	259	Homeguard	Rajesh Kumar	7771053985	
12	291	Homeguard	Indrapal	7389723342	
13	191	Homeguard	Chandraprakash	9669255774	

Table 38: Details of Fire Specialist or Trained Home Guards

