iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 8 **Issue:** V **Month of publication:** May 2020

DOI: http://doi.org/10.22214/ijraset.2020.5184

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 8 Issue V May 2020- Available at www.ijraset.com

A Study on Indian Legislative Framework for Disaster Management of Madhya Pradesh

Dr. Pavan Mishra[1], Yashi Tiwari[2]
[1]*Professor and Head, Department Of Commerce, Barkatullah University - Bhopal (M.P.)*
[2]*PhD Scholar, Management Department, Barkatullah University, Bhopal.*

Abstract: ***Disasters have been main hurdles in the development of civilization since ages and affect humanity on long term basis. Disaster Management is aimed at reducing potential loss of life and property in disasters as well as ensuring strong preparedness, responses and recovery measures to manage any disaster situation. Disaster Management is regarded important as it is the poor and under privileged who are affected the most from disasters. In light of this, United Nations declared year 1990-2000 as decade for Natural Disaster Reduction. To effectively manage disasters, comprehensive legislative framework has been developed by various governments across the globe. India also has enacted The Disaster Management Act, in year 2005, which in addition to the legal framework and guidelines also has a set of directions for the State Governments to adhere. The study hence intends to analyze the Legislative Framework and the Policy directions prevailing in India along with the Public Policy and Plans formulated by Government of Madhya Pradesh in consonance to the same.***
The study has been done covering the general overview and legislations regarding disaster management in India and specific to Madhya Pradesh. The study then analyses the policy, governance and institutional arrangements of Madhya Pradesh. The primary data of floods has been collected from SDMA, Madhya Pradesh and analysis has been drawn thereof.
Keywords: Disaster Management, Legislative Framework, Public Policy, Plans

I. INTRODUCTION

A few decades ago, the occurrence of disaster in any part of India was generally taken up as the responsive and relief centric event. It‘s only after major calamities such as the 1999 Orissa Super Cyclone, 2001 Bhuj earthquake, 2004 Tsunami in Southern India, when National Committee on Disaster Management was set up to shift the existing relief centric approach to holistic approach, thereby shifting the focus to pre- disaster activities as well. This includes preparedness, prevention and mitigation measures and to enable Disaster Management Plans (DMPs). DMPs are aimed at reducing potential loss of life and property in disasters as well as ensuring strong preparedness, responses and recovery measures to manage any disaster situation.

A. The Disaster Management Act, 2005

Disaster Management Act 2005 was enacted to cover all aspects of pre and post disaster measures. The Act provides a legal and institutional framework for the effective management of disasters and for matters connected therewith or incidental thereto. It provides for establishment of National Disaster Management Authority (NDMA), State Disaster Management Authority (SDMA) and District Disaster Management Authorities (DDMA) at the National, State and District levels respectively with adequate financial and administrative powers.

National Institute of Disaster Management (NIDM) was also established with the mandate of undertaking training and capacity building programmes, developing training modules on various aspects of disaster management,

undertaking research and documentation, formulating and implementing comprehensive (Human Resource Development) HRD Plan covering all aspects of DM, providing assistance in formulating policies at national level as well as providing assistance to State Governments and State Training Institutions.

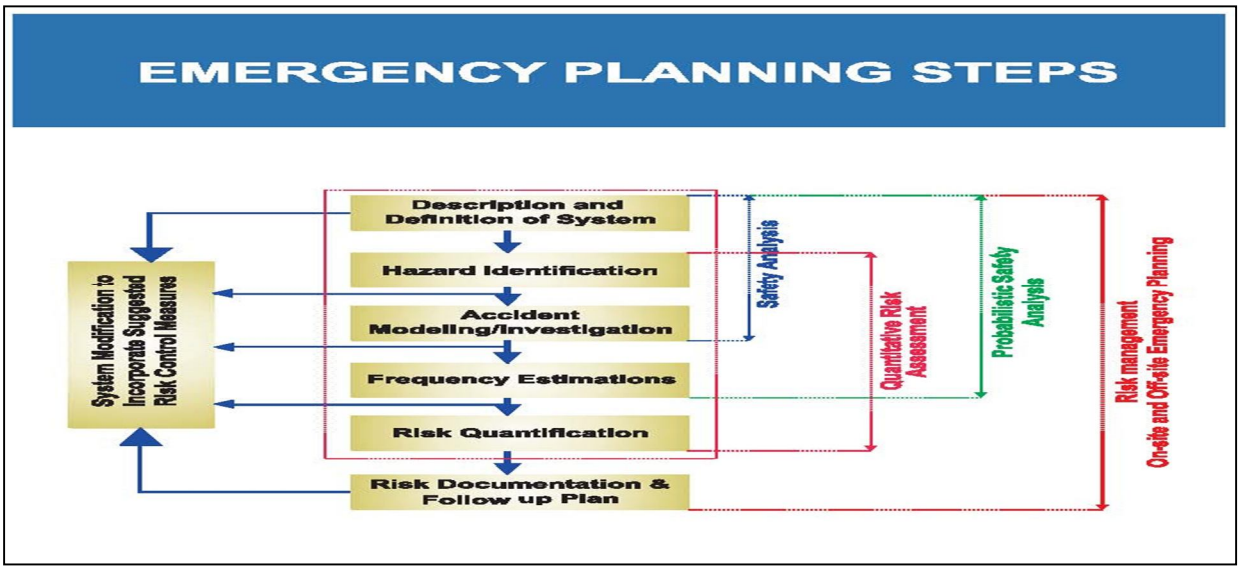
The act also provides guidelines for creation of National Disaster Response Fund (NDRF), National Mitigation Fund and establishment of funds by State Government and allocation of funds by Ministries and Departments for emergency procurement. According to Chapter III Section 23 of Disaster Management Act 2005, it is mandatory for every state to have a State Disaster Management Plan (SDMP). It has to be supervised by State Executive Committee and to be approved by State Disaster Management Authority.

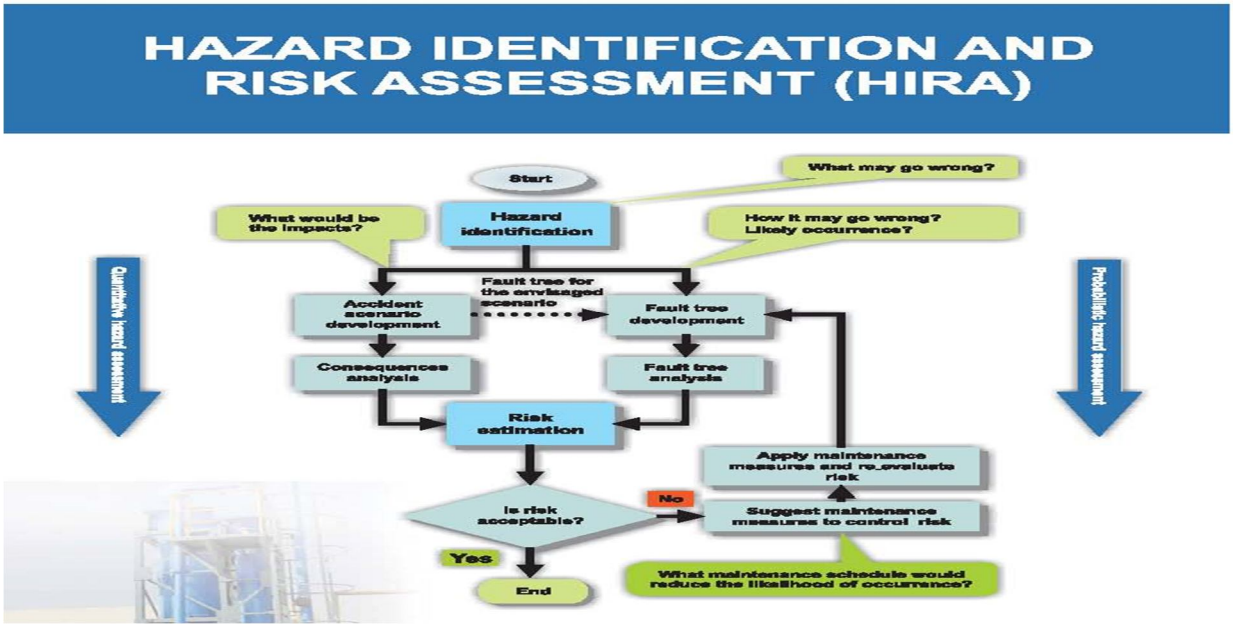
©IJRASET: All Rights are Reserved

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 8 Issue V May 2020- Available at www.ijraset.com

B. National Disaster Management Policy (NDMP) of India

The National Policy on Disaster Management was approved by the Government in November 2009. It is a comprehensive document that lays down the policies that focuses and touches every aspect of disaster management in the country, including the state disaster management planning. It was envisioned with the aim to minimize the losses to lives, livelihoods and property, caused by natural or manmade disasters with a vision to build a safe & disaster resilient India by developing a holistic, proactive, integrated, and technology driven strategy. Community based Disaster Management, capacity development, consolidation of past initiative and cooperation with agencies at national and international levels with multi-sectoral synergy are the most important themes that are dominating this policy. The Policy is also intended to promote a culture of prevention, preparedness and resilience at all levels through knowledge, innovation and education. It encourages mitigation measures based on environmental sustainability. The policy tends in mainstreaming disaster management into the developmental planning process and focuses to provide for Institutional and Financial arrangements at national, State, and District-levels for Disaster Prevention, Mitigation, Preparedness and Response as it ensures adequate budgeting for disaster mitigation activities in all
Ministries and Departments.





Sources:- Disaster management Institute Bhopal

©IJRASET: All Rights are Reserved

C. State Disaster Management Plans

State plan requires proper and separate plans for different states according to their vulnerability and exposure to various disaster situations, depending upon the location. Since some areas are prone to one disaster another may be vulnerable to multiple, but in any of the case it's the residing community in different parts of the state that becomes the first responders to disaster. Communities are the first population that is affected with any calamity or emergency situation, which together make a district thereto constitutes a state and then the states when joined together form a whole nation.

The disaster management plan of any nation has to follow the approach of top to bottom and bottom up, which is to start at the grass root level of community thereby moving further to any district and then fetching state.

The plan is made in such a way that it ensures proper effectiveness and effective coordination amongst various departments. For the preparation of this SDMP holistic approach was taken in which equal priority was given to all the levels i.e. national, state, district and grassroots. The approach includes:

1) Referring the State disaster management policy and conducting meeting with various government departments of the state to take their suggestions to incorporate in SDMP
2) Study the primary and secondary data, including the district wise information, collected through all the 50 District Disaster Management Plans prepared
3) Referring the National Disaster Management Guidelines August 2007, prepared by NDMA referred for preparation of a comprehensive framework and also the DM Act 2005.
4) Universal Guiding Principles (including HFA, INEE, SPHERE) were also referred for the preparation of SDMP
5) Draft framework was reviewed and consulted with nodal departments such as SDMA etc.
6) Consultation meetings with Corporate bodies, Disaster Management Institutions, concerned state level boards, and nodal bodies of disaster management, NGO's, communities.
7) Information collected from various levels and later compiled in this SDMP.

NDMA has laid down 9 guiding principles for the state plan to incorporate, they are as follows:

a) Study of vulnerable areas of different parts of the state to different kinds of disasters.
b) Measures to be adopted for prevention and mitigation of disasters.
c) Methods and procedures in which mitigation measures shall be integrated with development plans and projects.
d) Capacity building and preparedness measures to be taken.
e) Defining the roles and responsibilities of each department of the government of the state in relation to the measures specified above.
f) Roles and responsibilities of different Departments of the government of the state in responding to any threatening disaster situation or disaster.
g) The plan of the State will be reviewed and updated annually
h) Appropriate provisions will be made by the state governments for financing the measures to be carried out under the state plan.
i) Copies of the state plan will be made available to the departments of the government of the state and such department will draw up their own plans in accordance with the state plan.

II. UNIVERSAL GUIDING PRINCIPLES

A. Hyogo Framework for Action (HFA)

Loss of life and property caused due to disaster in different nations is a global concern which faces more or less common problems with varied intensities. Hence there are certain standards and frameworks set with an aim to minimize the risk associated with disasters that are applicable universally and can be modified for effective implementation considering the local scenarios. To take into consideration the overall Disaster Risk Reduction (DRR), a Hyogo Framework for Action (HFA) has been set which includes 5 priority areas to meet the aim of DRR. These 5 priorities are:

1) *Priority 1:* Making DRR a policy priority for institutional strengthening.
2) *Priority 2:* Identify, assess and monitor disaster risks and enhance early warning.
3) *Priority 3:* Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4) *Priority 4:* Reducing underlying risk factors.
5) *Priority 5:* Strengthening disaster preparedness for effective response and recovery.

©IJRASET: All Rights are Reserved

B. Inter-Agency Network for Education in Emergencies (INEE):

INEE standards are also set to ensure that all persons have right to quality education and a safe learning environment in emergencies and post-crisis recovery. Knowledge and education plays a vital role in minimizing the losses. The INEE strives to provide standards for education in preparedness, response, and recovery and acts as a global tool to provide the minimum level of educational quality and access in emergencies situations. There are major 5 domains under which minimum standards have been set, these are:

1) Foundational Standards, Community Participation, Coordination, Analysis
2) Access and Learning Environment
3) Teaching and Learning
4) Teachers and Other Education Personnel
5) Education Policy

C. Sphere

This was launched in the year 1997, which was based on the principles that the population affected by disasters has the right to life with full dignity. These standards focused on improving the quality of assistance provided to people affected by disaster or any emergency situation. These minimum standards are for:

1) Water, sanitation and hygiene promotion
2) Food security nutrition and food aid
3) Shelter, settlement and non-food items and
4) Health services

These are the sectors that generally get affected during any disaster adding more miseries in the after math of the emergency.

Status of State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF): during financial year 2019- 2020

s.no	State	Opening Balance as on 1.04.2019	Fund released in Cr.	
			SDRF	NDRF
i.	Rajasthan	670.76	502.50	1164.99
ii.	Madhya Pradesh	-	247.35	-
iii.	Assam	323.98	251.55	-
iv.	Bihar	0.00	417.37	-
v.	Karnataka	434.62	204	1544.26
vi.	Maharashtra	0.00	676.125	2474.29
vii.	Gujarat	1504.50	565.80	-
viii.	Kerala	2107.46	52.275	-
ix.	Odisha	447.52	552.00	4127.10
x.	West Bengal	185.03	414.90	-
xi.	Himachal Pradesh	1.70	197.23	233.98
xii.	Punjab	6262.11	313.05	--

D. State Disaster Mitigation and Preparedness

Disasters can cause extensive strain on financial resources, therefore it has to be a dedicated fund allocation for the state, district level and sub district level disaster mitigation and preparedness activities. Government of Madhya Pradesh intends to have a budgetary allocation for the disaster management.

©IJRASET: All Rights are Reserved

E. State Disaster Relief and Response

Under the Constitution of India, provision for providing speedy and immediate relief to the victims of natural calamities is the primary responsibility of the States. However, often the scale of a natural calamity combined with the economic and infrastructural abilities of the State Government create such a situation where assistance from the Central Government towards meeting the relief expenditure becomes necessary. Therefore it was strongly recommended in the Ninth Finance Commission for setting up of the Calamity Relief Fund (CRF) scheme for financing relief expenditure of States in the wake of natural calamities. The main objectives of this initiative were to ensure that:

1) The assistance extended to the States is in accordance with their needs.
2) The provision of relief to the victims is immediate and quick.
3) The States have greater autonomy in the relief operations and
4) The States are more accountable as well for their activities regarding relief.

There is a requirement for every State to have a separate CRF, with Finance Commission recommendations deciding the annual allocations. Every year, the Centre provides 75 per cent of the size of the CRF of a State as a non-plan grant to the State while the rest of 25 per cent comes from State Government itself.

F. CM's Relief Fund

Aids may be received as grant in aid from Central Govt., World Bank and/or other departments/agencies to carry out specific projects/schemes related to disaster management/ mitigation/ capacity building. NDRF also supplements the funds from the State Disaster Response Fund (SDRF) of a state to facilitate immediate relief in case of calamities of a severe nature. To carry out Emergency Response & Relief activities after any disaster the SDRF is made available to Commissioner of Relief, Revenue Department.

G. Monitoring and Review

The State Disaster Management Plan (SDMP) brings together risk assessment, preparedness/mitigation measures and disaster response plan for the state on one platform. To mainstream disaster management concerns in development process, coordination/implementation mechanisms of the plan and identifying financial arrangements have been included as part of the plan to facilitate smooth implementation of the same.

H. Disasters in Madhya Pradesh

Madhya Pradesh the Heart of India is the second largest state of the country. Due to its diverse physiographic feature and richness in resources it is prone to multi hazard problems which includes both natural and industrial hazard and makes the 7.33 crore population vulnerable to such calamities. Currently the state is separated into 10 divisions and 51 districts. A recent Earthquake study was carried out in the state which revealed that some districts come under zone IV (earthquake prone high risk zone). The Bhopal gas tragedy is the most tragic and horrifying incident, and the worst manmade disasters in history of the State. This incident claimed about 3000 innocent lives and left thousands and thousands of innocent persons physically impaired or affected in various degrees. Due to rapid industrialization, hundreds of industries are operational in various districts, out of which around 256 are registered with Madhya Pradesh Pollution Control Board. However others are also operational but are running on their own risks. So, if we look at the state of Madhya Pradesh overall, then we will find that the people of Madhya Pradesh are at higher risk. Section 23 of the DM Act 2005 provides guidelines that there shall be a DM plan for every state but it's also the realization of the requirement of such plans emerging within the state that makes the purpose of the plan more effective.

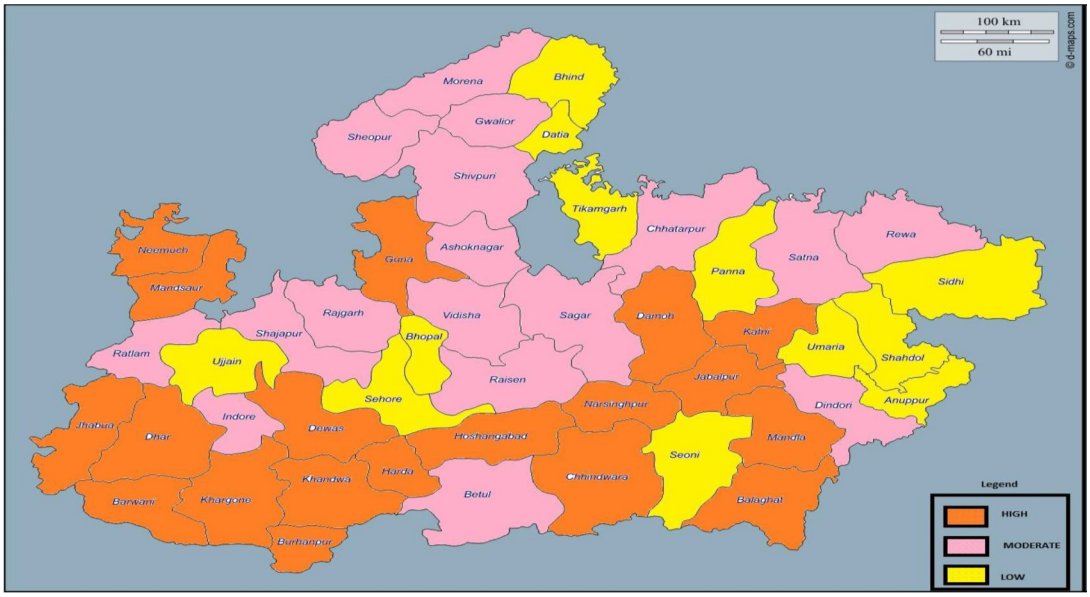
I. Vulnerability of Disasters in Madhya Pradesh

As per the Oxford dictionary Vulnerability means "the quality or state of being exposed to the possibility of being attacked or harmed, either physically or emotionally". It refers to the degree to which one is exposed to risk and the inability to cope up with the same. The State of Madhya Pradesh is vulnerable to both natural and manmade disasters because of its unique geo-climatic conditions and rapid industrialization. The major natural hazards that the State could be affected by are earthquake, floods, drought, fire etc. According to the Vulnerability Atlas of India 2007, there are 28 districts come under Zone III, and 22 districts come under Zone II of earthquake. Likewise in last 30 years there are 32 districts of the State affected from the flood and around 7 districts highly affected from drought. As among the natural disasters the State of Madhya Pradesh is more prone to floods which is highly severe and causes mass devastation and destruction.

©IJRASET: All Rights are Reserved

The state had been severely affected by floods in the year 1982, 1983, 1984, 1986, 1992, 1994, 1996, 1997, 2003, 2005, 2006 and 2012, as per the data from the revenue Department. Keen observations reveal that more than 80% of the annual rainfall is concentrated over a short monsoon period of 3 months. This leads to heavy siltation, flash floods and poor discharge of flood waters, and thus sometimes even the embankments are breached due to this reason. After analyzing the previous data the 55 districts of the state has been divided into different flood prone disaster zones. The zones are broadly classified into 3 categories viz. High, Moderate and Low.

1) High flood prone Districts: Areas where flood has occurred more than 8 times since 1982, in last 30 years.
2) Moderately flood prone Districts: Areas where flood has occurred 6-8 times since 1982, in last 30 years.
3) Low flood prone Districts: Areas where flood has occurred less than 5 times since 1982, in last 30 years.



(Source: MP State Disaster Management Plan)
Figure 1: Flood Affected Districts of Madhya Pradesh

Vulnerability Assessment (VA) refers to identifying, analyzing, ranking the areas and taking necessary precautions to face the same. It acts as a pre disaster measure of assessing the zones which are likely to be adversely affected and precautions can be taken thereof. The vulnerability assessment enables the users to visualize the temporal, spatial and sectoral vulnerabilities of various districts in MP as well as compare them based on their relative vulnerabilities. Data was collected from State Disaster Management Authority, Bhopal of the deaths caused due the calamity of flood over a period of four years starting from 2013-2017 and the trainings conducted during the same period. A correlation analysis has been established between the number of deaths and the trainings conducted.

Table 1: Correlation Analysis

Year	Trainings (x)	Deaths(y)	xy	x^2	y^2
2013-14	64	390	24960	4096	152100
2014-15	50	114	5700	2500	12996
2015-16	35	77	2695	1225	5929
2016-17	44	327	14388	1936	106929
Total (Σ)	193	908	47743	9757	277954
Pearson Correlation Coefficient (r)				0.83	

(Source: Study Analysis)

The analysis reveals that the trainings conducted and the deaths caused by floods are positively correlated. It depicts that the x^2 and y^2 have a strong correlation and as the number of trainings increases, the death toll also rises

©IJRASET: All Rights are Reserved

J. Policy and Governance for Disaster Management in Madhya Pradesh

The State Government of Madhya Pradesh has shifted its focus from reactive response measures to proactive preparedness and preventive mechanisms, with a view to generating synergy, prevent conflict, optimize use of resources and avoid oversight. The notified state level disaster management structure caters to all types of disasters. The overall state level DM structure is as below:

As per the DM Act 2005, the state level disaster management functions will be activated, and directed by the State Disaster Management Authority (SDMA). Under the SDMA, there will be a State Executive Committee (SEC), which will work in coordination with Home Department. There will be a State Nodal Officer cum Secretary SDMA, who will report to State Executive Committee, about various disaster management functions of the state. There will be seven divisions in total (Administrative, Operation & Coordination, IEC & Media, Training & Capacity building, Research & Policy Development, Finance planning & Coordination, and International Coordination Divisions), which will work under supervision of State Nodal Officer, and will perform the respective disaster management and allied functions, in line with the State DM policy.

As per the 2005 Act State Authority shall consist of the Chairperson and such number of other members, not exceeding nine, as may be prescribed by the State Government. SDMA is chaired by honorable chief minister of the State.

SDMA will be overall responsible for institutionalization and implementation of all the disaster management functions. SDMA will meet periodically to review the overall progress of disaster management initiatives at the state level.

K. State Executive Committee

State Executive Committee (SEC) is formed by SDMA in order to assist the State Authority for achieving the state objectives as per the state disaster management guidelines. SEC is chaired by Chief Secretary of the Government of Madhya Pradesh. It will include members from various different departments like Department of Home, Revenue Department, Finance Department and Public Health and Family Welfare Department.

The responsibility of the SEC:

1) To coordinate and monitor the implementation of the national policy, the national plan and the state plan.
2) To provide information to the NDMA relating to various parameters of DM.
3) To earmark funds for prevention and integration of disasters in their development plans and projects.

L. Role of District Disaster Management Authority (DDMA)

The Government of Madhya Pradesh has come out with a very detailed and comprehensive MP State Disaster Management Policy, which consists of the applicable principles of disaster management in the state, approach and strategy for implementation, the financial arrangements and the documentation. State Guidelines have set the tone for a well laid disaster management planning and institutionalization.

In March 2012, the Private Security Bill of Madhya Pradesh has also come into existence, which has emphasized the safety and security needs. Now the Private guards and security agencies play a very vital role in disaster management. After the recent shift of state disaster management functions to Home department in Madhya Pradesh, the Role of DDMOs (District Disaster Management Officers) has become very important. In each district of Madhya Pradesh, one nodal officer has been appointed to take care of all the disaster management functions at the district level. The Nodal officer will be from Civil Defense & Home Guards department, so that his/ her expertise can be useful in emergencies. He/ she will be designated as the DDMO of the district; and will report to the District Collector (DC), for disaster management functions.

Afterwards it switches over to all 5 important phases of disaster management framework (including prevention & mitigation, preparedness, response, disaster relief, and rehabilitation & reconstruction). The plan also covers the issues pertaining to mainstreaming and Research & Development measures. Later it focuses on the general & specific Standard Operating Procedures (SOPs), partnerships, inter- intra state coordination mechanism and overall monitoring of the plan.

III. CONCLUSION

As observed during the study that the communities are the first responders to any emergency situation and hence we have to work from the grass root level to deal and cope up with any calamity. Trainings conducted have not laid any effect on the grass root level and the death toll keeps on rising. A loop hole of proper control has been identified and it requires a close coordination to work amongst various departments along with proper dissemination of authorities and responsibilities rendered to all. It's not the job of only the top level people to work; rather it's the responsibility of all to join hands together for a better society, a better state and a better nation. The plan of action as laid down by Madhya Pradesh, thereby needs to be detailed at a micro level, merely preparing

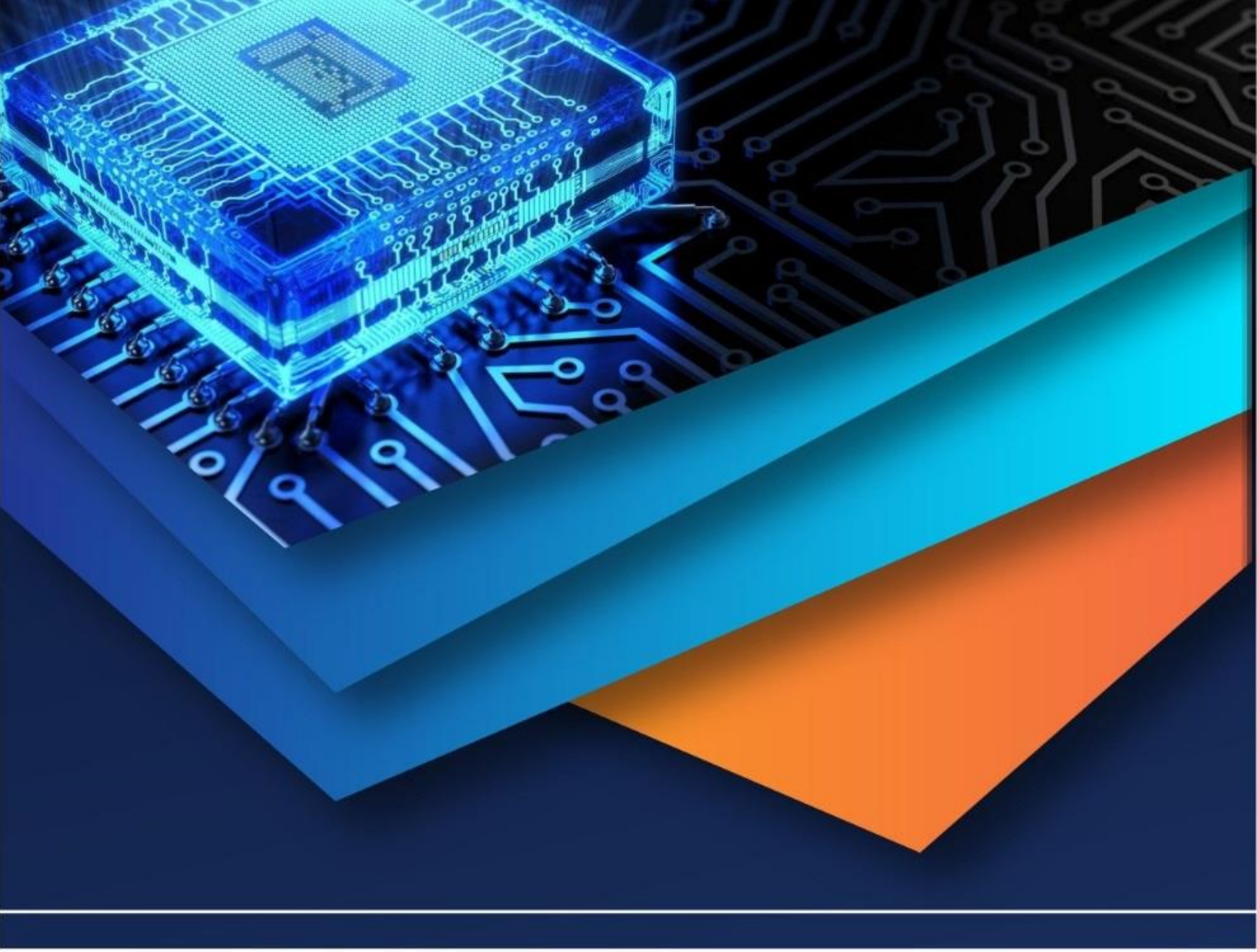
©IJRASET: All Rights are Reserved

Disaster Management Plans at macroscopic level of state, may not solve the purpose of efficient management of disasters. The study also found that interdepartmental coordination as envisaged in the National Disaster Management Policy of India and State Disaster Management Plan of Madhya Pradesh needs better implementation at District and Community level. The study plans to be further extended to reach out to experts for their opinion on lacunas and shortcomings in efficient disaster management planning in Madhya Pradesh.

REFERENCES

[1] Daya, K., Ayaz, M., Kumar, S. N, (2000). "Disaster Management in India". Retrieved from www.home.iitk.ac.in
[2] Erramilli, B.P. (2008). "Disaster Management in India: Analysis of Factors Impacting Capacity Building" Dissertation, Georgia State University. Retrieved from www.scholarworks.gsu.edu/political_science_diss/15
[3] Madhya Pradesh State Disaster Management Plan, collected from State Disaster Management Authority, Bhopal, Madhya Pradesh
[4] Vakis, R. (2006). "Complementing Natural Disasters Management: The Role of Social Protection" Social Protection Paper No. 0543, The World Bank

©IJRASET: All Rights are Reserved



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)