

**CIVIL SOCIETY ORGANIZATIONS AND DISASTER
MANAGEMENT: A STUDY OF WAYANAD
DISTRICT, KERALA**

*Thesis submitted to
the University of Calicut in partial fulfillment of
the requirements for the award of the degree of*

DOCTOR OF PHILOSOPHY IN POLITICAL SCIENCE

by

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CERTIFICATE

I hereby certify that the thesis entitled “**Civil Society organizations and Disaster management: A Study of Wayanad District, Kerala**” submitted by **Ms. Anju B Krishna**, is the result of an authentic work carried out under my guidance. I also certify that neither a part of the work nor the whole of it has been submitted for a degree here or elsewhere. The thesis is hereby submitted to the University of Calicut for examination for the Degree of Doctor of Philosophy in Political Science in the Faculty of Humanities.

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I, Ms. Anju B Krishna., do hereby declare that this Ph.D. thesis entitled “**Civil society Organisations and Disaster Management: A Study of Wayanad District, Kerla**” is the summary of the research work carried out by me under the supervision of **Dr. Zacaria T V**, Retired Principal, Amal College of Advanced Studies, Nilambur in partial fulfillment of the requirement for the award of the Degree of Doctor of Philosophy in Political Science. I also declare that neither a part of the work nor the whole of it has been published anywhere except quotations and references which have been duly acknowledged at appropriate places. I also declare that the thesis is free from AI generated content.

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ABSTRACT

Wayanad is the district most prone to natural disasters in Kerala. Being located entirely in the Western Ghats and an environmentally sensitive area, natural disasters such as floods and landslides are frequent here. The 2018 floods in Kerala were a revelation that natural disasters are not limited to the capacity of government systems. During the disaster, the interventions of social organizations, in addition to the government system, were also very noticeable. The government often collaborated with voluntary organizations in rural intervention and disaster mitigation. During the disaster, voluntary organizations actively came forward to provide relief to the victims along with the government. Since they work in rehabilitation activities, financial assistance, and in various forms of social needs, it was possible to assess that changes are taking place in their working methods and approaches. It is against this background that the research titled “Civil Society Organization and Disaster Management: A Study on Wayanad District” begins.

The main purpose of the study is to examine in detail the activities carried out by voluntary organizations in post-flood rehabilitation. In particular, it focuses on how they mobilized resources, who was selected as beneficiaries, and how the projects were planned and implemented. In addition, the study also assesses how effective the cooperation between voluntary organizations and government agencies in disaster management was. Sometimes, there are different opinions and criticisms about the interventions of voluntary organizations; therefore, the aim is to understand both the merits and limitations of their interventions.

The study puts forward four hypotheses. First, the experiences in Wayanad demonstrate the crucial role of voluntary organizations. Second, government-non-government cooperation further strengthens disaster management. Third, while government programs are usually linear and rigid, non-government interventions often show nonlinear and sometimes sectional tendencies. Fourth, the general observation is that voluntary organizations work more effectively than government agencies because of their close relationship with the people.

The research adopted a qualitative method. Interviews and surveys with affected families, local leaders, government officials, representatives of voluntary organizations, and public representatives will be used as primary data. Government reports, policy documents, scientific books, etc. will be used as secondary data collection.

The importance of this study lies in highlighting the need to think of disaster management not as a government-only area, but as a collaborative effort that also includes the role of civil society. While the government provides scope and financial support, voluntary organizations provide strengths such as close ties to the people, trust, and rapid intervention. The collaboration of the two can transform post-disaster operations from being a mere response to a crisis, to a process of building long-term resilience.

Keywords: Civil Society organisation, Disaster Management, Community Participation, Wayanad District, Kerala

സംഗ്രഹം

കേരളത്തിൽ, ഏറ്റവും രൂക്ഷമായ പ്രകൃതി ദുരന്തങ്ങൾക്ക് വിധേയമാകുന്ന ജില്ലയാണ് വയനാട്. പൂർണ്ണമായും പശ്ചിമഘട്ടത്തിൽ സ്ഥിതിചെയ്യുന്നതിനാലും, പരിസ്ഥിതിലോല പ്രദേശമായതിനാലും, ഇവിടെ നിരന്തരം വെള്ളപ്പൊക്കങ്ങളും മണ്ണിടിച്ചിലുകളും പോലെയുള്ള പ്രകൃതി ദുരന്തങ്ങൾ ആവർത്തിക്കാറുണ്ട്. 2018-ൽ കേരളത്തിലുണ്ടായ മഹാപ്രളയം, പ്രകൃതി ദുരന്തങ്ങൾ സർക്കാർ സംവിധാനങ്ങളുടെ ശേഷിയിൽ മാത്രം ഒതുങ്ങുന്നില്ലെന്ന കാര്യം തുറന്നു കാട്ടിയ ഒന്നായിരുന്നു. ദുരന്തകാലത്ത് സർക്കാർ സംവിധാനത്തിന് പുറമെ സാമൂഹിക സന്നദ്ധസംഘടനകളുടെ ഇടപെടലുകളും ഏറെ ശ്രദ്ധേയമായി. ഗ്രാമീണ തലത്തിൽ ഇടപെടുന്നതിലും ദുരന്ത ലഘൂകരണത്തിലും സർക്കാർ പലപ്പോഴും സന്നദ്ധസംഘടനകളുമായി സഹകരിച്ചു പ്രവർത്തിച്ചു. ദുരന്ത സമയത്ത് സർക്കാരിനൊപ്പം തന്നെ, ദുരന്തബാധിതർക്കും ആശ്വാസവുമായി സന്നദ്ധ സംഘടനകൾ സജീവമായി മുന്നോട്ടുവന്നു. പുനരധിവാസ പ്രവർത്തനങ്ങളിൽ, സാമ്പത്തിക സഹായങ്ങളിൽ, പല രീതിയിലുള്ള സാമൂഹിക ആവശ്യങ്ങൾ മുൻനിർത്തി പ്രവർത്തിക്കുന്നതിനാൽ, അവരുടെ പ്രവർത്തനരീതികളിലും സമീപനങ്ങളിലും മാറ്റങ്ങൾ സംഭവിക്കുന്നുവെന്ന് വിലയിരുത്താൻ കഴിഞ്ഞു. ഈ പശ്ചാത്തലത്തിലാണ് “സിവിൽ സൊസൈറ്റി ഓർഗനൈസേഷനും ദുരന്തനിവാരണവും: വയനാട് ജില്ലയെക്കുറിച്ചുള്ള ഒരു പഠനം” എന്ന തലക്കെട്ടിൽ ഗവേഷണം ആരംഭിക്കുന്നത്.

പഠനത്തിന്റെ പ്രധാന ഉദ്ദേശം, പ്രളയാനന്തര പുനരധിവാസത്തിൽ സന്നദ്ധ സങ്കടനകൾ നടത്തിയ പ്രവർത്തനങ്ങളെ വിശദമായി പരിശോധിക്കുകയാണ്. പ്രത്യേകിച്ച് അവർ വിഭവങ്ങൾ എങ്ങനെ ശേഖരിച്ചു, ആരെ ഗുണഭോക്താക്കളായി തിരഞ്ഞെടുത്തു, പദ്ധതികളെ എങ്ങനെ ആസൂത്രണം ചെയ്ത് നടപ്പാക്കി എന്ന കാര്യങ്ങളിൽ ശ്രദ്ധ കേന്ദ്രീകരിക്കുന്നു. കൂടാതെ, ദുരന്തനിവാരണത്തിൽ സന്നദ്ധ സങ്കടനകൾക്കും സർക്കാർ സംവിധാനങ്ങൾക്കും ഇടയിൽ ഉണ്ടായ സഹകരണം എത്രത്തോളം കാര്യക്ഷമമായിരുന്നു എന്നും പഠനം വിലയിരുത്തുന്നു. ചിലപ്പോൾ സന്നദ്ധ സങ്കടനകളുടെ ഇടപെടലുകളെപ്പറ്റി വ്യത്യസ്തമായ

അഭിപ്രായങ്ങളും വിമർശനങ്ങളും ഉയരുന്നുണ്ട്; അതിനാൽ അവരുടെ ഇടപെടലുകളുടെ ഗുണവും പരിമിതിയും ഒരുപോലെ മനസ്സിലാക്കുകയാണ് ലക്ഷ്യം.

പഠനം നാല് അനുമാനങ്ങൾ (hypotheses) മുന്നോട്ട് വയ്ക്കുന്നു. ഒന്നാമത്, വയനാട്ടിലെ അനുഭവങ്ങൾ സന്നദ്ധ സങ്കടനകളുടെ നിർണായക പങ്ക് തെളിയിക്കുന്നു. രണ്ടാമത്, സർക്കാർ-സർക്കാരേതര സഹകരണം ദുരന്തനിവാരണത്തെ കൂടുതൽ ശക്തിപ്പെടുത്തുന്നു. മൂന്നാമത്, സർക്കാർ പദ്ധതികൾ സാധാരണ രേഖീയവും കർശനവുമായിരിക്കുമ്പോൾ, സർക്കാരേതര ഇടപെടലുകൾ പലപ്പോഴും രേഖീയമല്ലാത്ത രീതിയിലും, ചിലപ്പോൾ വിഭാഗീയ പ്രവണതകളും കാണിക്കുന്നു. നാലാമത്, ജനങ്ങളുമായി അടുത്ത ബന്ധമുള്ളതിനാൽ, സർക്കാർ സംവിധാനങ്ങളെക്കാൾ ഫലപ്രദമായി സന്നദ്ധ സങ്കടനകൾ പ്രവർത്തിക്കുന്നു എന്നതാണ് പൊതുവായ നിരീക്ഷണം.

ഗവേഷണത്തിന് ഗുണാത്മക രീതിയാണ് സ്വീകരിച്ചിരിക്കുന്നത്. ബാധിത കുടുംബങ്ങൾ, പ്രാദേശിക നേതാക്കൾ, സർക്കാർ ഉദ്യോഗസ്ഥർ, സന്നദ്ധ സങ്കടനകളുടെ പ്രതിനിധികൾ, ജനപ്രതിനിധികൾ എന്നിവരുമായി നടത്തിയ അഭിമുഖങ്ങളും സർവ്വേകളും പ്രാഥമിക വിവരമായി ഉപയോഗിക്കും. സർക്കാർ റിപ്പോർട്ടുകൾ, നയരേഖകൾ, ശാസ്ത്രീയ ഗ്രന്ഥങ്ങൾ മുതലായവ രണ്ടാമത്തെ വിവരശേഖരണമായി സ്വീകരിക്കുന്നു.

ഈ പഠനത്തിന്റെ പ്രാധാന്യം, ദുരന്തനിവാരണത്തെ സർക്കാർ മാത്രം കൈകാര്യം ചെയ്യുന്ന മേഖലയായി കാണാതെ, സിവിൽ സൊസൈറ്റിയുടെ പങ്കും ഉൾക്കൊള്ളുന്ന സഹകരണ ശ്രമമായി ചിന്തിക്കേണ്ടതിന്റെ ആവശ്യകത തുറന്നു കാണിക്കുന്നതിലാണ്. സർക്കാർ വ്യാപ്തിയും സാമ്പത്തിക പിന്തുണയും നൽകുമ്പോൾ, സന്നദ്ധ സങ്കടനകൾ ജനങ്ങളുമായി അടുത്ത ബന്ധം, വിശ്വാസം, വേഗത്തിലുള്ള ഇടപെടൽ തുടങ്ങിയ ശക്തികൾ നൽകുന്നു. ഇരുവരുടെയും സഹകരണം ദുരന്താനന്തര പ്രവർത്തനങ്ങളെ വെറും പ്രതികരണമായി മാത്രം ചുരുക്കാതെ, ദീർഘകാല പ്രതിരോധ ശേഷി വളർത്തുന്ന പ്രക്രിയയാക്കി മാറ്റാൻ കഴിയും

സൂചകപദങ്ങൾ: സിവിൽ സൊസൈറ്റി ഓർഗനൈസേഷൻ, ദുരന്തനിവാരണം, കമ്മ്യൂണിറ്റി പങ്കാളിത്തം, വയനാട് ജില്ല, കേരളം

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LIST OF ABBREVIATIONS

CBO	–	Community-Based Organisation
CSO	–	Civil Society Organisation
CWC	–	Central Water Commission
DDMA	–	District Disaster Management Authority
DM	–	Disaster Management
DRM	–	Disaster Risk Management
DRR	–	Disaster Risk Reduction
ICS	–	Incident Command System
IDRN	–	India Disaster Resource Network
IMD	–	India Meteorological Department
IPCC	–	Intergovernmental Panel on Climate Change
KSDMA	–	Kerala State Disaster Management Authority
MoEFCC	–	Ministry of Environment, Forest and Climate Change
MoHFW	–	Ministry of Health and Family Welfare
NDRF	–	National Disaster Response Force
NGDRF	–	National Guidelines on Disaster Risk Framework
NGO	–	Non-Governmental Organisation
OCHA	–	United Nations Office for the Coordination of Humanitarian Affairs

PPE	–	Personal Protective Equipment
PWD	–	Public Works Department
SDG	–	Sustainable Development Goals
SDMA	–	State Disaster Management Authority
UNDP	–	United Nations Development Programme
UNDRR	–	United Nations Office for Disaster Risk Reduction
UNICEF	–	United Nations International Children’s Emergency Fund
WHO	–	World Health Organization

CHAPTER 1

INTRODUCTION

Civil society has played an essential role in the human civilization through social, political and economic systems of human lives. The notion of civil society has developed through transformation not only of ancient philosophical arguments to current social-democracy systems. It can be used as a context where individuals and groups gather to collectively act, promote their rights and shape the governance process beyond the immediate control of the state. To form a view of how civil society was formed, it is necessary to examine classical political philosophy, specifically the fact that Man is a political and social animal as put forth by Aristotle and John Locke and his theories on society, the state and civil-society. The formation of the civil society lies in the subject of human beings as social creatures. Aristotle who was among the pioneers of political philosophy contended that humans are potential members of associations to achieve their desires and needs. As a remembered quote during his Politics, he accurately wrote, "Man is by nature a political animal" to support his argument that people have the thriving nature in organized communities. Aristotle says that no one can fulfill his or her potential being alone, but rather they need an organized society where they are able to discuss, rule and cooperate with one another. This propensity towards social combination founded the present-day civil society. The formation of the civil society starts with the establishment of social groups. The first social forms of organization were informal groups of families, tribes and small communities and into further complex forms like guilds, religious groups and associations. Through these groups there was a sense of belonging, cooperation was achieved and there was a presence that was essential in creation of norms, custom, and traditions. These social groups over time became to encompass civil society organizations (CSOs), non-governmental organizations (NGOs), labour unions and advocacy groups, all of which fit into the larger structure of civil society.

Society and the State: John Locke and Rousseau's Perspectives

The connections between society and state are an area that faced a lot of philosophical arguments. John Locke as one of the most influential political thinkers of Enlightenment also gave a deep insight into the difference between the society and state. Locke contended in his *Second Treatise of Government* that the society is independent of the state. As Locke says, humans were originally in a state of nature; this state was associated with freedom and equality. Nevertheless, as a means to safeguard their natural rights- to life, liberty, and property, they entered into a social contract and established governments of their own free will. The evolvement of governance can be found specifically in the concept of Locke about civil society. But a different picture came out in the formulation of Jean-Jacques Rousseau *The Social Contract*. Whereas, Locke considered the social contract as a mechanism to secure the natural rights and restrict the powers of the state, Rousseau firmly held the opinion that there is a birth of civil society whereby people exchanged their absolute freedom to the general will in the common good. In contrast with Locke and his focus on the individual right to liberty and right of property, Rousseau asserted that only collective decision-making, direct democracy, provided true freedom. He claimed that a civil society is this third arena between the citizens and the state to guarantee citizen control over state power. Locke unlike Thomas Hobbes who saw the state as absolute authority needed to deter chaos held the school of thought believing in the limited government whose authority finds its legitimacy in the consent given by the people governed. According to Locke, the civil society becomes a stabilizing force over state authority in terms of encouraging justice, human rights and democratic involvement. Rousseau however regarded the state as an instrument to reconcile individual interests and the common good because civic participation was vital in formulating legislation consistent with the general will

The Role of Civil Society in the Modern Era

Nowadays, the civil society has gone a bit further compared to traditional demands, as it plays a significant role in the construction of political, economical, and social environments. The new roles of the civil society organizations have

emerged due to the emergence of globalization, technological development, and the escalating challenges being faced such as global warming and human right abuse. They are the watchdogs, checking on the government, social justice and bringing humanitarian assistances. The involvement in democratic governance is one of the most significant characteristics of the civil society in the contemporary postmodern era. CSOs have been playing their role in policy advocacy, electoral monitoring and civic education through which democratic institutions have been reinforced. The causes of gender, environmental sustainability, and human rights have become major movements because of the initiatives of civil society players. Where democratic institutions are weak in the apt sense, civil society is instrumental in fighting against authoritarianism and protection of civil liberties. Civil society is also an important role played today that helps fill the distance between the state and the people. Governments are usually bound to bureaucracy and political interests and therefore they might not respond instantly to the needs of its citizens. Civil society organizations come in and take over and offer much-needed services ranging to emergency situations, health, and schooling. They also serve as the mediators in many cases, as they help the marginalized communities to conduct a dialogue with policymakers in order to build inclusive development.

Civil society in Humanitarian Perspectives, Environmental Conservation and Disaster Management other than the governance and advocacy, civil society organizations are essential in humanitarian work, the preservation of the environment, and responses to disasters. The CSOs offer a fundamental support in the form of food, shelter, and health care during crises like wars, refugee crisis, and even in pandemics. Organizations such as the Red Cross, the Medecins sans Frontiers and numerous local humanitarian organizations attempt to ameliorate the suffering and reconstruct the affected populations. The issue of environmental conservation has also turned out to be an important activity of the civil society. Sustainability promoting organizations seek to address the issue of climate change and promote biodiversity and practices that do not negatively affect the environment. The civil society in this perspective plays a part in having a more sustainable planet by ensuring the two through establishing afforestation programs,

waste management campaigns as well as lobbying to ensure stricter environmental regulation. Another area of essential use of civil society is the disaster management. In case of a man-made or natural calamity like earthquakes, floods, and hurricanes, CSOs do not only come in with immediate relief but also coordinate rehabilitation activities and also contribute to the long-term development of resilience. The 2018 Kerala floods, as one example, witnessed an overwhelming role of civil society organizations in relief camp set up, resource mobilization and in the reconstruction process.

As human society, the civil society is something that has always been there since the times when society was at its early stages to the formation of the organization which influences the process of governing and policy. The idea that man is a social and political animal as stated by Aristotle emphasized on the fact that it is in the nature of man to be associated, whereas Locke theories stressed so much on the importance of civil society to ensure equilibrium between individual rights and the rights of the state. The modern world still challenges the civil society, and the latter is central in bringing democracy, human rights, and social justice. Also, their role in humanitarian services, environmental protection, and disaster relief demonstrates that they play a vital role in stabilizing the world. As societies become increasingly interconnected, the significance of civil society in ensuring accountable governance, empowering communities, and advocating for global causes will only continue to grow.

Public surveys reveal that civil society organizations often enjoy a high degree of public trust, which can make them a useful but not always sufficient proxy for the concerns of society and stakeholders. The active involvement of CSOs/NGOs activities related to natural calamities is evident. Latest example is incessant monsoon rains have resulted in rising water levels, landslides and flooding across the southern Indian state of Kerala. From the first phase to the final stage the CSOs played a vital role. This study seeks to analyse the work done by CSOs in managing the disaster caused by the 2018 heavy monsoon with a special focus on their involvement in the rehabilitation programme in the district of Wayanad. The study is

held in the context of general perception that CSO and NGOs have performed their role in such a manner correspondingly to governmental activities.

Significance of the study

This research, *"Civil Society Organisations and Disaster Management: A Study in Wayanad District, Kerala,"* examines the evolving role of civil society organisations (CSOs) in disaster response, recovery, and resilience-building. My research journey began in June 2019, when a pilot study revealed the high vulnerability of Meppadi Gramapanchayath to landslides and extreme weather. In 2019, the Puthumala landslide became a matter of focus, with the outcome that the importance of CSOs during the post-disaster relief and rehabilitation emerged as sufficient. The research is based on the acceptance that state-led interventions cannot tackle disaster management demands that are complex and need multifaceted interventions. The role of CSOs is to close the gap between the governmental institution and the affected populations, providing the relief distribution, mobilising the resources making the long-term recovery possible. Wayanad, the area where landslides happen on a regular basis, can serve as an adequate setting to evaluate the success of these efforts, outlining the strengths, weaknesses, and possibilities to develop the situation. The theoretical consistency of the theory is offered by Habermas in his theory of the Public Sphere wherein CSOs have been conceptualized as spaces of communication, advocacy, and participatory governance. The Kerala floods in 2018 provided evidence as to how swiftly volunteer networks and NGOs can mobilise and, in many cases, fulfil institutional response gaps. The research paper also examines the contact point between CSOs and government agencies where acknowledged roles in policy often face implementation challenges due to bureaucratic delays, weak coordination, and resource constraints.

The issue of resources mobilisation and equitable aid distribution is of utmost concern because the CSOs are very much reliant on donations, crowdfunding, and volunteer networks. These methods, even though very responsive, are not sustainable and accountable. With its combination of field-based

experiences and theory, the research brings academic and practical insights into the field of disaster governance. Though the experience is limited to Kerala, the findings in the paper have wider implications to disaster-vulnerable areas around the world and the need to achieve community-based disaster resilience through collaboration.

Review of Literature

'Know about civil society'

Sudipta Kaviraj and Sunil Khilnani are co-authors of the book, *Civil Society: History and Possibilities*. The given work is an important contribution to the comprehension of civil society which has been an object of central political and sociological discussions. The authors examine historical development of civil society discussing its potential and all facets of its development enlightening us in complicated nature and complexities surrounding it. The book is analytical and critical to the perception of the concept of civil society conducts historical rise of civil society and the different reflections and meanings that the concept has had in different regions and epochs. Sudipta Kaviraj and Sunil Khilnani rely on their experience as experts in the political sciences and historians in order to introduce a constructive and sophisticated account of the concept of civil society. Some of the major themes and arguments included in the book might revolve around the following, Historical Evolution: The authors discuss the historical backdrop of civil society, and how this concept has changed over the ages. Probably, they do discuss its coming into existence in various communities and its contribution to political and social processes. Cultural Context: The cultural, social, and political contexts of other regions and moments may be discussed in the book on their impact on the civil society. Contemporary Relevance: The authors may have been able to do it, but it is possible that they could not pass it off. examine the relevance of civil society in contemporary politics and society, including its role in democracy, activism, and social change.

“Civil society the idea of 20th century”

Michael Edward’s important work, "Civil Society" (2009), is a cornerstone for understanding the subtle dynamics of civil society and its current reality. The work dives deeply into the concept of civil society, evaluating credible arguments in real-world circumstances. It also looks at how civil society has faced substantial problems as a result of political and economic transitions in different parts of the world. Furthermore, the text revisits and expands on the original arguments and evidential framework, integrating significant new content that includes relevant debates on civil society in places like Africa and the Middle East.

Significantly, he presents fresh content on critical subjects such as the role of civil society in Africa and the Middle East, the rise of global civil society, the effect of information technology, and the growth of new forms of citizen organizing. Edwards explains how upcoming difficulties, such as governmental intrusion, rising individualism, and the resurrection of traditional forces like nationalism and fundamentalism, as well as new dangers, will undoubtedly test and redefine the terrain of citizen activity. He thinks that these pressures will have both positive and negative effects on civil society practices. Finally, Edwards hopes to provide readers from many viewpoints with a better knowledge, increased insight, and greater efficacy in negotiating the complexity of these revolutionary times.

Exploring the Nexus of Civil Society and Democracy in India

Carolyn M Elliott, “Civil Society and Democracy A reader” (2003), as a reliable and sophisticated guide to the discussion of the idea of civil society and its relationship with democracy and governance in India. The book is divided into two main topics, the theory of discussion about civil society in the Indian scenario and the study of empirical investigations. The book thoroughly underpinned Indian debates on civil society in the perspective of issues arising in other non-western countries. The book explores and explains how the concept of civil society developed in the western tradition of political thought, and compares India’s experience with those of China, Southeast Asia, Latin America and Middle East. The book is centered on the civil society of India and its connection with democracy

and government. It examines the development of the notion of civil society within Western political thinking and compares its exploitation in India to that elsewhere in the world, China, Southeast Asia, Latin America, and Middle East. In a unique blend of theoretical discussion and empirical studies, the book examines a number of variations about civil society such as the interaction between civil society and liberalism, pluralism and national identity in different countries. It further looks at how civil society and markets relate to each other, ethnic heterogeneity, and the production of the social capital and how these relations influence freedom and democracy. The analyses provide good concepts to strengthen the democratic civic society of India.

Civil society issues and perspective in Indian society

"Civil Society: Issues and Perspectives" by N. Jayaram offers a comprehensive analysis of civil society, examining its role in governance, activism, and societal change. Through an interdisciplinary lens, Jayaram explores how civil society organizations interact with government, advocating for policy reforms and fostering citizen participation. Although the idea of civil society is frequently debated, experts disagree on its exact meaning and qualities. Nonetheless, everyone agrees that civil society is essential to democratic government. The political science discourse on civic society arose from re-examinations of the structure of the Indian state and the processes of democracy. It originated in sociology from several social movements and non-governmental organizations' participation in socio economic development.

This book has 13 chapters in which famous experts discuss various facets of civil society. They investigate cultural and power views, assess the link between civil society and a "good society," and examine civil society's nature in respect to certain institutions or processes. These include demonstrations by farmers, natural resource management, identity politics, fundamentalism, religion, caste, and language dynamics, as well as the engagement of civil society with the state and democracy.

Civil society: a contemporary political theory

Naresh Dadhich, “contemporary political theory” a handbook of explaining political theory. It covers a whole range of political theories in the contemporary world. The book simply analyses the trends in contemporary political theory and is written under sub topic. Civil society, End of Ideology, End of History, Social Capital and Post Colonialism are contained under contemporary political theory. Contemporary political theory involves significant ideas and theoretical principles that have gained prominence within the field of political theory. Author mentioned that civil society is a modern concept that emerged in modern politics of the 18th century. Things mentioned in the book about civil society, the concept has been used in various ways, but especially in two ways (1) it is a check on state power (2) it is a democratic space for marginalized sections.

Civil society: A critical approach

John Ehrenberg, “Civil Society: The Critical History of An Idea” (2018), as a reliable and sophisticated guide to the criticism of the theory of civil society. The book seeks to help the reader understand the usefulness and limitations of civil society. It also considers the theoretical evolution of the concept in academic and public discourse. Simply, it is a comprehensive discussion on analyzing Western Political Theory. The book is divided into three major parts, the first one, The origin of civil society. Second is, Civil society and modernity. And the last, Civil society in Contemporary life. The book examines the historical, political and theoretical evolution of the way of civil society.

Historical perspective of civil society

In "Civil Society Berlin Perspective," John Keane attempts to investigate several approaches and points of view related to civil society, looking at its complex structure from several angles. With a primary focus on civil society in Europe, the book brings together specialists from several disciplines to examine issues such as politics, economics, and culture within the context of civil society. They also provide insightful perspectives on the fundamentals of civil society itself. By means

of this investigation, the book advances our understanding of the potential and constraints of civil society and offers suggestions for how historians and social scientists could apply the idea in a global setting. Keane's incisive introduction highlights the volume's remarkable breadth and depth, which extend from the intellectual foundations of civil society to its historical origins. Keane's primary focus is on the cultural and political role that cities play in promoting civil society. He presents the metropolis as the center of modernity, the birthplace of the nation-state, and the impetus behind a global viewpoint. Berlin is mentioned heavily in the book's title, although the book's emphasis on urbanity is more symbolic than explicit-Berlin is used as a metaphor for the vibrant and varied aspects of urban life. The relationship to Berlin is figurative rather than literal, emphasizing the vibrancy of the city and the presence of academics connected to it.

Why civil society is important.

"Political Thinking, Political Theory, and Civil Society" Steven M. DeLue, co-author Timothy M. Dale (2017), provides a thorough examination of the evolution of civil society through the prism of political thinking. The book is divided into three primary sections that discuss the historical, philosophical, and contemporary components of civil society.

The first section, "Civil Society in the Classical and Religious Traditions," establishes the groundwork by looking at the beginnings of civil society in classical and religious literature. DeLue and Dale expertly explore ancient texts and theological ideas to reveal the origins of civic involvement and social order. *"Civil Society at the Millennium: Navigating Global Challenges and Opportunities"*

Kumi Naidoo's "Civil Society at the Millennium" (2005) is a thorough examination of the development, current situation, and future prospects of civil society across the world. Through fifteen illuminating chapters, this publication methodically analyses the thematic underpinnings of civil society in the context of globalization, government, youth engagement, women's leadership, sustainable development, religion, poverty, indigenous rights, volunteerism, and technology.

Each chapter of the book is written by renowned scholars, practitioners, and activists, guaranteeing a wide range of viewpoints and expertise. The contributions, which range from case studies showcasing successful civil society projects to theoretical thoughts on the nature of civic involvement, present a vivid picture of civil society's diverse nature in the 21st century.

Civil society in Kerala Experience

The book "Civil Society Politics Interface: The Kerala Experience" by G. Gopakumar seems to explore the complex interplay between politics and civil society in the context of Kerala, an Indian state known for its unique socio-political dynamics. This book examines how civil society groups interact with Kerala-specific political processes and institutions. It will most likely look at a variety of issues, including civil society's effect on policy making, lobbying for societal reform, and its impact on political decision-making. Furthermore, it may investigate how Kerala's distinct social and political context influences the relationship of civil society players and the government.

Given Kerala's history of strong civil society engagement and progressive social policies, this book is expected to provide light on the intricacies of the region's civil society-politics relationship. It may also provide comparative perspectives on civil society and political processes by examining the history of social reform movements in Kerala. The book is arranged into five chapters and a conclusion, utilizing analytical, historical, and empirical techniques.

Know about the disaster management

Mukesh Kapoor, "Disaster Management" 2012, in his book aims to comprehensively cover disaster management, providing insights into mitigation, preparedness, response and recovery. The book's design facilitates readers in formulating ideas and understanding the field's workings within both national and international frameworks. A notable feature is the emphasis on case studies offering a practical understanding of disaster management. Overall, the text appears to be a

valuable resource for those seeking a holistic view of the subject, blending theoretical concepts with real world applications.

India's vulnerability to disasters and its management framework

Pramod Patil's *Disaster Management in India* (*Indian Streams Research Journal*, Feb 2012) explores India's vulnerability to disasters and its management framework, categorizing disasters, reviewing major events, and outlining institutional mechanisms like the Disaster Management Act (2005) and financial provisions. Strengths include a clear classification system, historical context, institutional framework, and financial insights. However, the article is limited by outdated data, a lack of discussion on climate change, minimal focus on community involvement, and an absence of critical policy evaluation. While it offers a solid overview, updating statistics, incorporating climate change impacts, and analysing policy effectiveness would enhance its relevance.

Various types of disasters affecting India

The article *Disaster Management in India* by Vinita, Jyoti Gupta, Sangita, and Kiran Bala provides an in-depth analysis of the various types of disasters affecting India and the country's disaster management framework. Disasters, whether natural or man-made, pose significant threats to life, property, and the environment, necessitating comprehensive management strategies. The Disaster Management Act includes both natural and human-induced calamities, highlighting their catastrophic impact and the need for emergency interventions. The Government of India has classified disasters into five broad categories: water and climate-related, geological, biological, accidental, and nuclear/industrial disasters. Among natural disasters, earthquakes, floods, cyclones, landslides, droughts, cold waves, avalanches, and tsunamis are major concerns. Earthquake-prone zones cover a large portion of the country, particularly the Himalayan regions. Floods, a recurring issue in states like Assam, Bihar, and West Bengal, affect millions annually. Cyclones frequently hit coastal states, while droughts impact nearly 16% of India's land area, affecting millions. Other natural calamities such as landslides, cold waves, avalanches, and tsunamis further add to the country's vulnerability.

Man-made disasters, including industrial accidents, fires, transport accidents, and terrorist attacks, have also become significant concerns due to rapid urbanization and industrialization. The increasing frequency of these disasters necessitates improved preparedness and response mechanisms. The Indian government has developed a multi-level disaster management framework. The Ministry of Home Affairs is the nodal agency responsible for disaster management, except for droughts, which fall under the Ministry of Agriculture. At the state level, the Chief Secretary oversees disaster response, while district collectors coordinate relief efforts at the local level. Non-Governmental Organizations (NGOs) play a crucial role in disaster management by assisting in preparedness, relief, and rehabilitation efforts. Moreover, the community involvement is becoming one of the critical elements in the response actions as the awareness level and preparation may allow minimizing damages produced by a disaster considerably. Local governance agencies, including Panchayati Raj institutions and urban local bodies, are also to an extent involved in disaster mitigation through awareness creation and taking local-level preparedness measures. India has taken several measures to have a stronger future, such as training on preparedness, excellent forecasting systems, an effective communication network and coordination between institutions such as government departments, and research institutions, the armed forces and non-government organizations. Institutional and policy framework, in an effort to streamline the disaster response and recovery, the country has a written institutional and policy framework comprising the Crisis Management Group (CMG), National Crisis Management Committee (NCMC) and National Contingency Action Plan (CAP). In general, India has developed its disaster management structure over the years which has incorporated both national and local institutions, non-governmental organizations and the involvement of the community in reducing the negative effects of disasters and having a safer future.

Disaster Management in India: Need for an Integrated Approach

Sriram, Dorasamy, and Vipul (2022) in the article, Disaster Management in India: Need of an Integrated Approach, discuss the importance of integrated and

comprehensive disaster management approach. The writers contend that hazards may be natural but most disasters are man-made, mainly failure to incorporate the disaster risk management in developmental policies. Such gaps increase the risk levels, especially in stigmatized groups, and hinder the achievement of international strategies including the Sendai Framework and the Sustainable Development Goals (SDGs).

A key strength of the article is its emphasis on the systemic and cascading nature of disaster risks, which require a multi-hazard approach for effective mitigation. By analyzing disaster management policies from ten countries, including India, the study highlights the need for institutional mechanisms that account for dual or multi-disaster scenarios. The COVID-19 pandemic serves as a critical example, demonstrating the urgent necessity for an integrated framework that can manage concurrent disasters effectively. The authors propose a model aimed at enhancing preparedness and response to complex disaster situations, advocating for a holistic, resilience-focused strategy.

While the article presents a well-researched and structured argument, a limitation is its lack of detailed case studies or empirical data to support the proposed framework's effectiveness. A comparative analysis of the implementation outcomes from different countries could have strengthened the study's practical implications. Nevertheless, the article makes a significant contribution to disaster management literature by underscoring the importance of integrated policies in building a more sustainable and resilient society.

Disaster Management and Ethical Challenges

In this article the authors, Basyah et al.. trying to analyse effective disaster management requires a coordinated response from multiple disciplines, including medical professionals, security forces, and emergency responders. However, ethical challenges arise, particularly in resource allocation, triage prioritization, and long-term recovery efforts. Ethical principles such as fairness, transparency, and accountability must guide decision-making to maintain public trust. Research in disaster-affected areas must also uphold ethical standards, balancing the need for

data collection with cultural sensitivities and human rights protections. A systematic review of 30 peer-reviewed articles highlights gaps in risk communication and community engagement, emphasizing the importance of local participation and sustainable development in disaster mitigation strategies. Addressing ethical and logistical challenges through transparent policies and inclusive approaches can lead to more effective and equitable disaster management frameworks.

In *The Rain and Pain of Wayanad Landslide 2024*, Babu Jose Pampalny, OFM, presents a deeply moving and firsthand account of the devastating landslide that struck Wayanad, Kerala, following torrential monsoon rains and a midnight cloudburst on July 30, 2024. The disaster claimed over 415 lives, leaving more than 200 missing and countless families displaced. Pampalny, writing from his Franciscan friary *Prakruthi Mithra* in Meppadi Panchayat, offers a harrowing narrative of survival, loss, and resilience. His reflections capture the fear and desperation of the affected communities—migrant workers, tribal families, and tea garden laborers—who faced not only nature’s fury but also the challenges of marginalization and displacement. The author details the friars' extensive relief efforts, including providing tarpaulin sheets, emergency lighting, and essential food supplies to the affected families. Through his heartfelt storytelling, Pampalny highlights the broader socio-economic vulnerabilities of Wayanad, emphasizing the need for solidarity, compassionate outreach, and long-term rehabilitation. His narrative is not just a documentation of a calamity but a testament to the human spirit’s ability to endure, rebuild, and find hope even in the face of unimaginable loss.

Causative Factors of Landslides 2019: Case Study in Malappuram and Wayanad Districts of Kerala, India

This study, Sudesh Kumar et al., analyzes the August 2019 landslides in Malappuram and Wayanad districts, attributing them to excessive rainfall, weakened bedrock, poor drainage, and unscientific land use. The paper effectively integrates geological surveys and hydrological assessments, emphasizing the multi-hazard nature of floods and landslides. While it offers valuable insights and

recommendations, it lacks detailed quantitative analysis and disaster response evaluation. Future research should focus on predictive modeling and policy-level disaster mitigation. The study is a crucial reference for geologists, disaster management professionals, and policymakers.

Wayanad Landslide Disaster: Impact, Response, and Implications for Future

Resilience

The article P. Azad et al., presents a comprehensive analysis of the 2024 Wayanad landslides, highlighting socio-economic and ecological impacts, response strategies, and future resilience planning. It effectively uses statistical data and global comparisons to contextualize Kerala's vulnerability, while also assessing the efficiency of state and NGO interventions. The study's strong theoretical foundation, referencing established works on landslide classification and risk management, adds scholarly rigor. However, it could benefit from a deeper comparative analysis with past landslides, expanded ecological assessments, and more concrete policy recommendations. Despite these areas for improvement, the article is a significant contribution to disaster studies and a valuable resource for researchers and policymakers.

Local Histories and the Making of Wayanad's Socio-Cultural Landscape

Johnny's *Wayanad Rekhakal* is a seminal work that explores the social history of Wayanad through a regional and culturally grounded lens. The book stands out for its methodological emphasis on local evidence and oral traditions, which provide a nuanced understanding of Wayanad's socio-cultural evolution. It goes beyond mainstream historical narratives by focusing on how the people of the region lived, interacted with nature, and formed a unique cultural identity. Johnny does not only record historical events but also the historical lived experience of the communities therefore rendering Wayanad not as an outskirt's location but as a place that is integrated and has its own rich historical process and development. The detailed description of biodiversity and the migration trend that resulted in settlement in Wayanad Rekhakal can be considered one of the most valuable

qualities of this book. The book outlines how migrant farmers who flocked to the region because of the ecological wealth of the region ultimately transformed the social geography of the region. This interface between society and nature is pivotal in comprehending the process in which Wayanad got its identity. Regarding my project, the work of Johnny was presented as valuable information on the origin and development of the social landscape in Wayanad. The book made me realize the importance of cultural and ecological phenomena affecting the same social set-up a view that has been absent in most traditional historical writing by foregrounding local narratives.

Regional Historiography and Socio-Ecological Transformations in Wayanad

In his Malayalam book *Ealamala Muthal Chooralmalavare*, Dr. Shumais U. gives a rich excursion of the historic geography of Wayanad, its socio-political development. The book provides a good background of the historical continuation of the region Ealamala to Chooralmala regions with their strategic and cultural value to the region way back historically. With the help of historical reports, oral history and archives, author recreates the region history in a form of balance between the academic accuracy and the story telling. His work focuses on the importance of the geographic corridors in Wayanad as guidance not only travel and trade but also areas of interaction, resistance, and changes especially during the posed transition by colonial or post-colonial times.

The book can be especially relevant to learning the micro-histories of the hill areas of Wayanad which tend to be underrated in general historical discourses. Dr. Shumais is skilled at connecting local developments and histories with broader politics and economies in the process providing a grounded and broadened regional historiography. In my study, this piece was of fundamental help to me. background on the territorial dynamics and settlement patterns that shaped Wayanad's social structure. The author's meticulous approach helped me frame the spatial and cultural evolution of the district in historical context, enhancing the regional specificity of my study.

Human-Nature Conflict and Environmental Challenges in Wayanad

The *Vishakanyaka* (1948) by S.K. Pottekatt offers a very sound literary base to gather insights on the socio-historical backdrop of migration and settlement in Wayanad, which is very much similar to the themes area of this thesis. The novel shows in a colorful way the migration of the Travancore Christians into the harsh and unfavorable environment of Wayanad, which is a central theme to the undertaking of this study in exploring human adaptation and survival to ecological adversity. With the symbolic figuration of Wayanad as the poison maiden, the theme of the intricate relationship of humans to nature that one of the key motifs of the thesis is realized. This aspect places the force of nature in the form of a potent, even animate power, which contradicts the expansion of humans into it, as the struggle and compromise between migrant people and nature. This is echoed in the thesis exploration of the response of civil society organizations and communities to facing natural challenges in the event of disaster management and rehabilitation.

It is also true that the narrative depicted by Pottekatt avoids individual heroism and focuses on communal strength and endurance, which is similar to the thesis that relies on the community mobilizing and collective action in development. Struggles, sacrifice and self-reliance of the settlers elaborated in the novel is significant in underlining grassroots efforts that precede formal state efforts, which is a vital clue in analyzing civil society role in social and environmental change. In addition, the ecocritical aspect of the novel which addresses the voice of nature as an antagonist has the theoretical capacity to interpret the environmental discourse within the history of migrations and settlements. This corresponds to the general question of the thesis concerning the interaction of human agency and nature, and more specifically in situations of disaster. Finally, *Vishakanyaka* echoes a spiritual orientation similar to the demands by Swami Vivekananda of self-labour and awakening which highlights the theme of the thesis of empowerment through mutual self-will and perseverance towards development and rehabilitation. Summarily, as well as being a classic of the literary tradition, *Vishakanyaka* is a cultural text of priceless value in the sense that it broadens the perceptions of migration,

environmental issues, and community survival in Wayanad, hence offering invaluable background and interpretative contexts to this thesis.

Landslide hazard mapping integrating spatial and temporal probabilities using copula functions

Shamsudeen and Sankaran (2024) have carried out a study on landslide hazard mapping of Wayanad District, Kerala, where the study has combined the spatial and temporal probability through the copula functions. This paper criticizes conventional landslide evaluation which only depends on rainfall intensity and suggests the joint- probability method of rainfall intensity and the extent. Using the random forest model, the researchers created landslide predisposition map which showed that the rainfall thresholds in different areas of Wayanad varied. Their results suggest that the longer the rainfall the less likely to have a landslide. These findings are also incorporated in a landslide hazard mapping (LHM) to extend analyses on 1- to 50-year intervals, which is an important input to disaster risk analysis. In the research, the importance of multi-variate probability modeling in landslide prediction and mitigation is highlighted which provided a more detailed technique of hazard assessment in climate sensitive areas

Impact and implications of landslide prone areas

In Desai and Chakurkar (2020), the authors present the detailed analysis of the causes, impacts, and wider implications of the landslide that took place in Wayanad District, Kerala, in the form of a case study of Puthumala landslide. The paper underlines that heavy monsoon precipitation, unstable soil composition, logging, thin layer of the ground, and non-scientific land-use, as the primary factors predetermining the catastrophe. The land slip that was occasioned by 500mm of rainfall in 24 hours displaced almost 20 hectares of land; this largely impacted on agricultural activities and soil fertility. The study also highlights the ecological fragility of the Western Ghats pointing out that climatic change would pose an even higher risk to such calamities. Prior land-use controls, restricted building and eco-friendly farming to reduce landslides in the future is promoted by the authors. Their

results give potential knowledge in implementing approaches to disaster management in eco-fragile areas.

Civil Society and Social Movements in the Indian Context

The book of Nation, Civil Society and Social Movements: Essays in Political Sociology edited by T. K. Oommen examines the influence of the civil society and social movements on the process of nation-building in India. The arguments of the essays in the book are that Indian civil society is not cohesive as one entity but fractured in the direction of caste, religion, language and region. This complicates Indian civil society and in many cases it is full of conflicts. The contributors describe the appearance of various social movements (Dalits, women, ethnic groups) to seek justice, to be recognized and receive equal rights. These movements are significant in enhancing democracy through representation of the marginalized community, which tends to be locked out of the mainstream politics. The dependence between the civil society and the state and national identity is also brought out in the book. In some cases, they are challenging democratic principles and propagating social inclusion, and in other cases they could propagate parochial or closed interests. The essays indicate that the meaning of social movements and civil society in India is quite different than in the western context in which they are applied. The book demonstrates that civil society is not as distinct a component as the other side of the state, rather they both tend to be linked together. Overall, the volume provides valuable insights into how collective action and social struggles help shape the Indian nation and its democratic processes.

Concept of civil society in political theory

The book *Political Theory: An Introduction(2008)*, edited by Rajeev Bhargava and Ashok Acharya, is designed as a foundational text political theory. The core argument of the book is that political theory is not only about abstract philosophical debates but also about how political concepts are understood and practiced in real-world societies, particularly within the Indian context. It promotes the view that political values must be examined through historical experiences, social diversity, and practical challenges in democratic governance. One of the

important contributions of the book is its exploration of civil society as a key site of democratic engagement. The text presents civil society not simply as a space of voluntary associations, but as a dynamic arena where individuals and groups participate in public life independently of the state. The book shows how civil society enables citizens to express opinions, organize around common interests, hold authorities accountable, and defend rights. From liberal, communitarian, and critical perspectives, civil society is discussed as both a check on state power and a space for social cooperation. Importantly, the Indian examples used in the book—such as grassroots movements, NGOs, and community-based organizations—highlight how civil society operates in a complex social environment marked by caste, religion, and regional diversity. Thus, the book help me to understand civil society not as a single ideal model, but as a plural and evolving concept that plays a vital role in both strengthening and challenging democracy.

The State-Society Interface and the Role of Civil Society in Contemporary

Political Theory

In *Contemporary Political Theory* by M.J. Vinod and Meena Deshpande (2013), the relationship between the state and society is explored as an important theme in modern political thought. The book explains that political theory has gradually moved away from viewing the state as the sole center of authority and instead emphasizes the increasing role of society—particularly civil society—in shaping politics. The interaction between state institutions and civil society organizations is presented as dynamic, where both influence and challenge each other. This state-society interface is crucial to understanding how power operates in contemporary democracies.

Such term as a civil society is interpreted in various theories, such as liberal approaches, Marxism and a critical aspect. According to the book, civil society is defined as a realm, where individuals and groups mobilise independently of the formalities of the state to articulate their interests, popularise collective action, and participate in the democratic procedures. It also recognizes that civil society is by no means always homogenous or forward-looking; it may replicate the social inequities

and even go so far as to endorse the strongholds of power. The authors demonstrate the use of the civil society as a platform of resistance, advocacy, and accountability by using both global and Indian experiences. This discussion notes the fact that civil society can enhance democracy to a high level as well as pointing out the internal contradictions and constraints in civil society.

Understanding Global Civil Society through Communicative Power

Global civil society 2007/8: Communicative power and democracy an edited book by Anheier, Glasius, Kaldor and Albrow (2007) highlights how civil society is increasingly living up to the concerns and issues of civil society globally. The focus of the book is that communicative power which means the capacity of the people and groups to talk and exchange ideas and influence public opinion is significant to the construction of international civil society. As the authors clarify, civil society is no longer concerned only with local and national organisations, networks, and NGOs but also with global movements and organisations that attempt to shape international decisions and foster justice, democracy and human rights. I realized the complexity and power of the global civil society through this book. It gives numerous examples of the way people turn to media, protests, and to the open forums and make their voices heard to make the world aware of some significant problems worldwide. Simultaneously, it also mentions some of the challenges, e.g., the unequal access to the tools of communication, the impact of the influence of influential organizations, and the lack of involvement of marginalized groups. These talks caused me to think about ways that the global civil society can play a supporting role in the democratic transformation process, and yet has to become more representative and balanced. The book, in general, provides an effective and critical perspective of the role played by the civil society across boundaries.

Community Participation and Post-Tsunami Reconstruction in Kerala

Rajeev M. M.'s article studies the role of local self-governments (LSGs) and community participation in disaster management, with a focus on the 2004 tsunami and how it affected Alappad Panchayat in Kerala. The author explains that LSGs are important in disaster response because they are close to the people and understand

their social, cultural, and economic needs. Despite this, the 2004 tsunami exposed serious weaknesses in how disasters are handled at the local, state, and national levels. Based on interviews with local people, the study found that LSGs faced many challenges, such as a lack of preparedness, poor coordination, centralized decision-making, and unfair distribution of resources. The study also found that local people were sometimes blamed for their losses, which made recovery harder. However, Rajeev also highlights some positive themes, such as the importance of working together, being better prepared, changing attitudes, and encouraging sustainable livelihoods. The article concludes that LSGs, if supported properly, can take leadership roles in disaster recovery and help communities recover faster and more effectively. This is especially true for places like Alappad, where people depend heavily on natural resources. The author argues that development workers and local leaders should empower communities to face disasters with strength and cooperation.

Disaster Management in Conflict-Prone Regions: Policy and Practice in Jammu and Kashmir

The article by Kaul and Isha examines the policy structure and the administrative infrastructure of the disaster management in Jammu and Kashmir (J&K), especially on the extent to which the policies at national and state level translate into disaster response and recuperation on ground. These policy documents that have been scrutinized by the authors are the Disaster Management Act, 2005, the National Policy on Disaster Management (2009), and the State Disaster Management Policy and Plan that pertains to J&K more specifically (2017). Both primary and secondary data can help to reveal through: they examine the way disaster management authorities operate and evaluates the contribution of other interested stakeholders such as the local organizations, NGOs, the media, police, and the armed forces. It was found that there is a serious mismatch between the objectives of Disaster Management Act, as envisaged and its practical on-ground application in J&K. The Act does not get sufficient comprehension and practical implementation primarily by dint of the inadequacy of human and financial

resources, lack of coordination and commitment of disaster management authorities. Further, existence of minimal comprehensibility in policy formulation along with employment of civil society and local people in disaster reaction undertakings is also minimal. Even though the police and armed forces play a role in relief operations, their performance is also hampered by insufficient training, and the unavailability of the appropriate equipment.

The authors argue that for disaster management in J&K to be effective, there must be a holistic and integrated approach. This includes stronger institutional mechanisms, improved coordination among stakeholders, greater use of information and communication technologies (ICTs), and a strong link between disaster management and sustainable development. Most importantly, local governments and communities must be empowered through training and awareness programs to take on more active roles in disaster preparedness and response.

Coordination Challenges and the Role of Civil Society in Disaster Governance

The study by Güneş Ertan (n.d.) looks at an important gap in disaster management research in Turkey by focusing on the role of civil society organizations (CSOs) instead of only government agencies. Most earlier studies have looked at how well public institutions perform during disasters, but Ertan points out that not much attention has been given to the role and challenges of civil society groups.

The study reviews past research on how different organizations work together during disasters, especially after the Marmara Earthquake. It shows that there were serious problems in how CSOs coordinated with each other and with government bodies. Using data from various civil society actors and applying network analysis, the study reveals that coordination among CSOs was weak and their links with public organizations were limited.

Ertan also uses ideas from collective action theory to explain why it is hard for organizations to work together during big emergencies. The study supports other research that criticizes disaster management systems that rely only on government

control and calls for a more cooperative approach that includes many types of organizations. In short, this study places itself within the growing field of disaster governance studies and emphasizes the need for better cooperation between public institutions and civil society. It provides real-world evidence about the weaknesses in Turkey's disaster response system and gives suggestions for improving coordination and teamwork.

State–Civil Society Synergy in Pacific Island Disaster Response

The study by Viliame Wilikilagi (2010) explores the critical role of civil society in managing natural disasters in the Pacific, with a specific focus on the Fiji Red Cross Society. However, natural disasters, such as cyclone, earthquake, tsunami, and flood, are common in the region, but what is important in the research is that efficient disaster management cannot be left on the shoulders of the state alone. Rather it reasons out that there should be a cross-sector strategy in which civil society, as well as government and the market, participates actively. Wilikilagi points out that even though the state is responsible legally and structural, in the management of disasters, its responses have always been poor. This existing vacuum gives room to intervene on the part of the civil societies. In particular, the Fiji Red Cross Society is explored as a major example of how CSOs can be effectively used to complement state mechanisms in areas of the preparedness, emergency response and post-disaster recovery. Based on the research it can be demonstrated that civil society actors have potential benefits in terms of local knowledge and trust of communities as well as grassroots networks, and thus they can be adequate to supplement the official state machine. At the same time, it acknowledges the need for strong coordination and collaboration between state agencies and CSOs to ensure timely and efficient disaster response.

Wilikilagi has been able to support general arguments regarding governance, resilience and the changing role of third sector in disaster situations by concentrating on the relationships that exist between Fiji Red Cross Society and National Disaster Management Office. It demands a stronger inclusion of the civil society into national

systems of disaster management to make such systems of disasters response effective and sustainable in the Pacific.

Community-Based Disaster Risk Reduction and the Role of Civil Society in Asia

The article from Rajib Shaw and Takako Izumi (2014) shared on the ResearchGate contains the analysis of the current role of the civil society organizations (CSOs) in Asia that has been actively engaged in disaster risk reduction (DRR) activities. Previously, people focused primarily on relief by CSOs after the disaster. This paper, nevertheless, demonstrates that CSOs currently work on long-term risk-reducing and readiness.

The authors explain that CSOs of different scales—international, national, and local are contributing in important ways to areas like disaster education, community awareness, policy engagement, and recovery planning. They organize their discussion around the Hyogo Framework for Action (HFA), highlighting how CSOs contribute to its five key priority areas. Although these organizations play a valuable role, they often face serious challenges, especially smaller local CSOs that struggle with limited resources, trained staff, and technical support.

Overall, the article shows how CSOs can help connect communities with decision-makers, making disaster policies more effective and locally relevant. It calls for stronger partnerships between civil society and governments to improve disaster resilience across the region.

Complementary Roles of NGOs and Local Governance in Post-Disaster Response:

Insights from Cyclone Aila

The article written by Debabrata Mondol, Sarthak Chowdhury, and Debenra Basu is a study about the role of NGOs in disaster management, based on the experiences of people affected by Cyclone Aila in West Bengal. The authors collected data from the field between October 2013 and March 2014. Their main aim was to understand how NGOs and local government institutions, especially Gram Panchayats, helped people during and after the disaster.

The paper has identified that NGOs were very crucial during the initial relief. They soon offered food, clothing, medical assistance and temporary shelters to the communities that were affected. The NGOs could also respond in a shorter period since they are more adaptable and less obliged by formal procedures. This observation is true, as other researchers have also noted: that NGOs can get in touch with people quickly and directly when they are in a predicament. Conversely, Gram Panchayats had more to do with the long- term recovery. They assisted in the identification of victims and control of their compensation and monitoring of reconstruction of infrastructure that had been damaged. However, their work was sometimes delayed due to official procedures and paperwork.

The authors observed that both NGOs and Gram Panchayats had their own strengths. NGOs were better at quick relief, while Gram Panchayats were stronger in organized and long-term recovery. The study suggests that disaster management becomes more effective when both works together. This matches with the wider literature, which says that government and civil society should work as partners during disasters.

The researchers used survey data and basic statistical methods to compare the performance of NGOs and local bodies. They also pointed out some problems, like poor coordination between different organizations and repeated efforts in the same areas. These issues made the disaster response less effective than it could have been.

In short, the article shows that NGOs play a valuable role in disaster situations by acting quickly and reaching people directly. At the same time, it also highlights the need for better planning and cooperation between NGOs and government institutions to improve disaster management in the future.

Ethical Issues in Disaster Management

In her article *The Ethics of Disaster Management*, Sara Kathleen Geale (2012) explains that ethics plays a very important role in managing disasters. Disasters often create situations where there are not enough medical or emergency

resources to help everyone. In such cases, making fair and right decisions becomes difficult. Geale discusses how ethical problems come up while distributing aid, providing treatment, and doing research after disasters.

She also highlights that healthcare workers and disaster responders face tough moral choices. For example, they may need to decide who gets help first when resources are limited. Ethics may be simple to understand and in these times they can make more appropriate decisions. She has proposed that ethical training be incorporated in the training programs to enable the responders to face such circumstances. According to Geale, there are 8 prime values that should lead the disaster management: prudence (deliberate thinking), courage, justice (fairness), stewardship (responsible management of resources), vigilance (alertness), resilience (ability to recover), selfless service and good communication. These values assist in establishing a personal fairness and respect of rights of all the people affected during the response of a disaster. This article gives impetus to debate among the students, disaster managers and policymakers how ethics can enhance disaster response. It also contributes to the emerging body of knowledge on what it can take to render disaster management more worthy and fair.

Community-Based Approaches and Multidisciplinary Perspectives in Disaster Management

The edited volume *Natural Hazards and Disaster Management: Vulnerability and Mitigation* by R.B. Singh (2015) provides a broad and multidisciplinary perspective on disaster management. The book explains that disaster management involves many different activities such as monitoring, forecasting, evacuation, search and rescue, relief, and rehabilitation. These activities need cooperation between scientists, government officials, planners, volunteers, and the local community. The book emphasizes that disaster management must happen across all phases—before, during, and after a disaster.

One important point made in the book is the shift in focus from only responding to disasters to reducing the risks before they happen. This shift opens

new opportunities for research and planning. The concept of vulnerability is central to how likely a community is to be affected by hazards. By studying vulnerability, experts can help governments and communities prepare better for disasters. Disaster mitigation, therefore, is becoming a key part of planning and policy-making in development.

The book includes 22 chapters with both theoretical and real-life case studies from India and other countries. One chapter titled *Community-Based Disaster Management: Indian Experience* by A.K. Srivastava (p. 321) focuses on how communities in India have managed disasters through local knowledge, participation, and preparedness. It highlights that people at the grassroots level play an important role in reducing disaster risks when they are well-informed and involved in planning and response.

This book is valuable for students, researchers, and professionals working in areas like geography, environmental studies, disaster management, civil engineering, and public policy. Its combination of theory, field studies, and policy analysis makes it a useful resource for understanding both the challenges and solutions in disaster management.

Sociological Foundations of Human Response in Disasters

In *Human System Responses to Disaster: An Inventory of Sociological Findings* (1986), Thomas E. Drabek presents a comprehensive overview of how individuals, families, and communities behave in disaster situations. Based on decades of sociological research, this book challenges the common belief that people panic during emergencies. Instead, Drabek highlights that human responses are often rational, cooperative, and organized. He emphasizes that families, friends, and neighbors are usually the first to respond, providing mutual support and organizing basic relief before formal agencies arrive. His work also explores how social networks and trust influence the effectiveness of disaster response and recovery.

Drabek also addresses the issue of role flexibility in families and communities as an essential concept in case of crisis. The conventional functions

tend to realign themselves in lieu of present demands of livelihood and security. The book is an eye-opener on the role played by local knowledge, interpersonal communication and informal leadership in disaster scenario. This sociological perspective introduces a new dimension to the practice of disaster management because it sees the strength of the community and family system. The conclusions presented in the book can affect disaster preparedness policy internationally because they promote a more community-based and the people-oriented planning system.

Towards Inclusive and Long-Term Relief and Rehabilitation in India

This paper takes a critical look at the ineffectiveness of the current relief and rehabilitation efforts of India in the backdrop of the frequent incidence of disaster, particularly floods. It asserts that although emergency response systems are awakened in the event of disasters, relief availed is in most cases temporary, disjointed, and devoid. This article highlights that even the current policies fail to cater to the vulnerability of the marginalized groups including the poor, women, children as well as tribal groups. This causes the inclusion of many affected people into the formal recovery system where most of them are not taken in and they are further disadvantaged socially and economically.

The author outlines the necessity of a more inclusive and active disaster management. Relief and rehabilitation should not merely be limited to help with immediate rescue and compensation, but should aim to link risk reduction, social protection, housing, health, and restoration of livelihoods. The article also suggests that there should be coordination of central and state agencies and higher responsibility of funds used and also of local communities and civil society involvement. In general, the article is an addition to the increasing debate about moving away that frame disaster management towards a people and sustainable-based framework.

Institutional Gaps and Knowledge Transformation in NDMP 2019

In her article, Anshu Ogra critically reflects on the Disaster Resilience Responsibility Framework (DRRF) within the National Disaster Management Plan

(NDMP), 2019. She argues that while the DRRF outlines responsibilities for various central ministries designated as nodal agencies, it lacks clarity and direction in helping these institutions understand and carry out their roles. Most of these ministries approach disaster management from a technical or sectoral viewpoint, without recognizing the social and community-based aspects of disaster vulnerability. As a result, the actual implementation of their tasks under the DRRF remains unclear and fragmented.

Ogra suggests that the NDMP should go beyond role assignment and act as a transformative guidance document. It should help these ministries develop new ways of thinking—what she calls “epistemological transitions”—by creating knowledge spaces that allow for interdisciplinary dialogue and the inclusion of social science perspectives. This shift is necessary to build a disaster governance system that is not only technically sound but also socially inclusive and responsive to the needs of vulnerable populations.

Urban Flooding and the Need for Proactive Disaster Response in Delhi

Sidharth Verma and Aditi Madan (2023) in their article *Rising Waters, Recurrent Challenges* evaluate the extent of flooding in Delhi that took place in July of 2023 when the Yamuna River broke a 100-year old record high of water levels. The authors indicate that although there is extensive experience of floods in Delhi, government bodies still resort to reactive strategy instead of enacting preventive flood management policies. This sharp jump in the water level of Yamuna to more than 208 metres was highest in 45 years mainly because of excess discharge through Hathnikund Barrage and less water-carrying capacity due to encroachment, siltation and the construction of bridges. These infrastructural renovations have constricted the course of the river and accelerated the flow of water to the city aggravating the flood situation.

The article also emphasizes the social aspects of disaster response, particularly in terms of risk perception and community preparedness. Despite multiple warnings through official and digital channels, many residents delayed evacuation. People in low-lying areas waited until floodwaters reached their ankles,

while others only moved out when waters rose to the waist. Some even paid divers to evacuate livestock, pointing to gaps in government assistance. These patterns reflect the lack of public trust, preparedness training, and effective early warning systems at the local level. The authors argue that both structural and social factors must be addressed to build a more resilient urban disaster management system.

Understanding Landslide Vulnerability in the Western Ghats: A Review

The Western Ghats with their beautiful topography and ecological wealth are places that are fast becoming known to be prone to land slides- particularly because of the monsoons. Scholars such as Thampi et al. (2020) have underscored the fact that the natural topography, especially when considering loose lateritic soils contained in the highlands of Kerala, turns unstable as intense rainfall occurs. But then it is not nature alone. Things are becoming even worse because of human activities such as deforestation, construction of housing and roads on steep gradients, and ineffective planning of land use (Rao & Anitha, 2019). The emergency situation and practice show that, in the past, Idukki and Wayanad did not always have the appropriate early warning system and response and recovery mechanisms when disaster struck (Menon & Kurian, 2021). These studies indicate that the only effective way forward is to erect not just physical barriers such as walls and drainage systems but on the level of the creation of better awareness and policy making among people and their synchronization. The Wayanad landslide in 2024 serves as a sombre reminder that a lot appears to be needed yet to be done to equilibrate development and the protection and stability of the people affected residing in peril zones.

Community Knowledge and Climate Change in Wayanad

The study by Kumar and Srinath (2011) is a valuable one since it sheds light on climate trend in Wayanad, Kerala through the community perceptions and indigenous community ecological knowledge. The authors acknowledge the sensitivity of the high-altitude geography of the region and the livelihoods in the rural areas due to climatic changes and hence stress on the use of localized climate studies. The literature observes that although the global climate change is well

reported, there is gap in the quality climatic analysis, location-specific analysis, especially in the rural and indigenous settings. The authors use a participatory model where they gather information on the local communities regarding alterations in seasons, precipitation, and cropping cycles. Such observations are then compared to the meteorological data, and a convergence is revealed between the traditional categorizations and the scientific ones. The most prominent patterns are the reduction in strength of the early southwest monsoon, increase in extreme rainfall experiences and advancement of crop maturity. These results not only show how Wayanad is increasingly becoming more and more prone to climate change but also the significance of integrating local knowledge in climatic studies and climate adaptation measures.

This study aligns with broader scholarly efforts to validate and integrate indigenous knowledge systems into formal climate science, especially in regions where livelihoods are directly tied to climate variability. The authors argue that community knowledge not only contextualizes climate data but also helps trace causal linkages and build more effective, culturally grounded responses to climate change.

GIS-Based Landslide Susceptibility Mapping in Wayanad Using AHP Technique

This study explores how landslide susceptibility in the Wayanad district of Kerala can be effectively mapped using a GIS-based approach supported by the Analytical Hierarchy Process (AHP). Landslides are a common hazard in mountainous and high-rainfall regions like Wayanad, and identifying vulnerable zones is essential for effective disaster risk management. The paper highlights that rainfall is the most significant triggering factor for landslides in this region, but several other factors—such as land use, slope, soil type, and elevation—also influence the likelihood of landslides.

The researchers used secondary data from Landsat-8 satellite imagery and the Geological Survey of India (GSI), applying AHP to assign weights to 13 different parameters based on their influence on landslide events. This method, originally developed by Thomas Saaty, is a structured decision-making tool suitable

for complex problems like hazard assessment. The study validates its results using actual landslide inventory data, demonstrating the accuracy and reliability of the susceptibility maps produced.

This paper fits within a broader academic effort that integrates remote sensing, GIS technology, and multi-criteria decision-making to predict natural hazards. It emphasizes the usefulness of landslide zonation maps in planning, development control, and disaster preparedness, particularly in regions like the Western Ghats that are both ecologically sensitive and densely populated.

Rainfall Thresholds and Shallow Landslides in Wayanad

The study by Rajkumar et al. focuses on understanding how heavy rainfall leads to shallow landslides in Wayanad, a hilly district in Kerala. The researchers collected data from past landslides and rainfall events to identify how much rain and for how long it needs to fall before a landslide is likely to occur. This is known as setting a rainfall threshold. The authors point out that, as is true in most places within the Western Ghats, Wayanad is highly insensitive to heavy and brief precipitation, more so during the monsoon. These weather conditions regularly lead to shallow landslides, which may destroy houses, roads and fields. It does not rely on national or international standards as it is more accurate due to regional use of data to the local context, unlike relying on the national or global standards that might not apply to the Wayanad with its own unique environment, this is an element of the study as it is more particular to the region being studied. Such a study is helpful since it allows anticipating a landslide which has not yet occurred. The rainfall thresholds could be used by local governments, and disaster management teams. give early warnings, which may save life and save damages. It also upholds the argument that location specific solutions are necessary as opposed to a blanket approach.

Causative Factors of Landslides in Malappuram and Wayanad Districts

The paper authored by Wadhawan, Singh, and Ramesh (2020) delves deeply into the landslides in Malappuram and Wayanad districts of Kerala which took place

in August 2019. The authors discovered that the landslides occurred as a result mostly of five days of extremely heavy rainfall that was almost 400 per cent above average. Such heavy rain caused the soil to become saturated and reduce stability of the slopes. These places were vulnerable to failure due to the geological predispositions of the land (uncomfortable layers of weak soil, destabilized bedrock). Even these weak physical conditions were aggravated by poor land use conditions and inappropriate slope management.

The study also highlights the human-made factors that increased the risk of landslides. Activities like cutting hills for construction, blocking natural drainage, and building houses in flood-prone zones added to the damage. The authors stress that such unscientific development, combined with the absence of early warning systems, made the situation more dangerous. To reduce future risks, the paper suggests better land use planning, real-time monitoring systems for landslides and floods, and building local community resilience. The research provides important lessons for disaster management in landslide-prone areas, especially in the context of increasing extreme weather events.

Objectives

The main objective of this study is to explore the role played by non-governmental organizations in the post flood rehabilitation programmes in the district of Wayanad with an intention to strengthen the existing system for disaster management. The study will also consider the interface between CSOs and governmental machinery on the eve of disaster management. It also wanted to analyse various aspects related to resource mobilization, selection of beneficiaries, planning and implementation of projects. The study will also focus on divergent perceptions on the role of CSOs in disaster management.

Hypotheses

1. The experiences in Wayanad District in connection with the flood rehabilitation programme reinforce the pivotal role of Civil Society Organizations in disaster management.

2. The alliances between governmental and non-governmental agencies seem to strengthen the system for disaster management in the area.
3. The rehabilitation programmes of governmental and non-governmental agencies are linear and non-linear in nature and latter to promote sectarianism.
4. The civil society organizations involved in disaster management more effectively when compared to governmental agencies.

Methodology

This study employs analytical and descriptive research methods to examine the role of civil society organizations (CSOs) in disaster management in Wayanad. Additionally, the historical method is utilized to trace the evolution of disaster management systems and CSOs, as well as to analyze the chronology and underlying causes of natural calamities in the district. Furthermore, a comparative method is adopted to evaluate and contrast the disaster management programs implemented by governmental and non-governmental agencies.

The research mainly uses primary data which was done using field work. One of the important data collection tools was the interview and observation of 102 households affected by the 2019 landslide in Puthumala, which would offer the first-hand experience of their experience and recovery. Moreover, non-governmental organizations (NGOs) representatives, local government representatives, local government officials and community members were interviewed using the un-structured form of interviews to get an in-depth picture regarding their roles and perception on disaster response and rehabilitation. In addition, government reports generated by the district administration, non-governmental organization reports, press publications, and social media accounts are the most important primary data collection methods. These resources provide institutional overviews, policy implications and live coverage of disaster management and post disaster recovery. Besides the primary data, secondary sources are also used in the study; these are official reports, policy documents, academic literature, and other similar

publications. The mixed-method strategy will be used to comprehensively and thoroughly analyze the interrelatedness of governmental and civil society players in disaster management in Wayanad.

Limitations

This is what limited this study as an academic inquiry. The research being done within the local geographical region of locality was quite a challenge with regard to the availability of relevant literature. The literature resources on researching the role of civil society organizations (CSOs) specifically in disaster management in Wayanad were scarce and thus, the study had to depend partly on primary materials as well as general theories to put the results into context. The other limitation is CSO composition and operational nature in the region. The majority of the CSOs that had participated in active caretaking and rehabilitation activities in Wayanad were agencies that were outside Wayanad. Most of these organizations did not document their activities in a way that can enable one to gather complete data about resource mobilization, selection of beneficiaries and the implementation of programs. Lack of proper records hindered the possibility to check on information and find a comprehensive comparative approach to interventions done by governmental and non-governmental organizations. Moreover, information gathering was a problem because key stakeholders were not both accessible and available. A few NGO representatives and local government officials were pressed time-wise and in particular instances, inconsistencies in the reported information were observed, because of the differences in the institutional memory or outlook. Moreover, the reactions of affected communities were also affected by social and cultural issues, considering that certain households had been reluctant regarding sharing the most sensitive aspects of their experience, especially in reference to receiving post-disaster aid, and rehabilitation measures. The study attempted to 'lessen the impact of these difficulties; by triangulating data, which involved compilation of data using government sources, media narratives, and social media platforms, and interviews of key informants. Nonetheless, these limitations revealed the underlying challenges of undertaking field-based research in disaster-hit

locales, especially when voluntary agencies are used, which tend to keep little records in practice.

Tentative Chapterization

The proposal of study titled, Civil Society Organizations and Disaster Management which was done in Wayanad District, Kerala is summarized as having six chapters, including the introduction and the conclusion. The types of chapters that will be incorporated consist in exploring in detail different dimensions of the research study and thereby ensuring whether the role of Civil Society Organizations (CSOs) in disaster management has been discussed in detail. The provisional chapterization is as follows: -

Chapter 1: Introduction

Forming the context, the background and framework of the study is presented in the first chapter thus establishing the scene of the research inquiry. It consists of: Statement of the Problem - Identifying the problem of the study and the importance of the research topic, Objectives of the Study - Presentation of major objectives of the study and primary areas of focus, Research Questions - Developing questions that will guide the study, Scope and Significance - Describing the relevance and contributions of the research topic, Methodology - Description of methodology of study, resources of data and analysis tools used, Limitations of the Study - Discussion of the limits of the view of study, Chapter Outline - Establishing outline of the following sections of the study.

Chapter 2: Civil Society Organization: A Theoretical Overview

Civil society has gone through decades of transformation and has become an influential concept in debates around governance, democracy and citizenship participation. Classical philosophy Aristotle and Cicero, and other philosophers considered civil society to be a mediator between the state and the individual, promoting social order and ideas of moral responsibility. Philosophers of enlightenment e.g. Locke and Rousseau developed on this, and in a social contract, they tied civil society to the concept of individuals coming together to form a form

of governance. The role of civil society has been remodeled in the current world in the contexts of liberal democracy and participatory governance. Philosophers such as Hegel and Tocqueville emphasised its role in holding state power and personal liberties. Post-modern critiques of the inherited conception and the affirmation of civil society as a field of counter-hegemonic struggles and seen as an arena of active citizenship have been informed by authors like Gramsci and Habermas. In the Third World and Indian scenario, the importance of civil society has been evident in the social movements, welfare and grass roots activities. The evolution of Indian civil society organizations (CSOs) has been spared with the ideas of Gandhian system of self-governance and participatory democracy and have played a prominent role in the responding to disasters, support human rights efforts and partake in development agendas.

Chapter 3: Environmental Hazards and Disaster Management

The environmental risks are very confrontational to the societies all over the world that provoke the introduction of powerful disaster management policies. Those hazards may be classified as natural and anthropogenic ones. One of the natural hazards is flooding, earthquakes, landslides, and cyclones which are in most cases compounded by climate change. Anthropogenic hazards, however, are caused by destruction of forests by people, pollution of industrial pollution, and uncontrolled urbanization. Risk and vulnerability analysis is a key element in disaster management as it determines the at risk areas and populations as well as infrastructure. The potential effects are mitigated by preparing against the disaster, by disaster mitigation measures such as early warning schemes and sustainable land-use planning. Recovery and response to disasters are issues that entail concerted efforts by the government, civil organizations, and international organizations. At the national and international levels, effective policy frameworks direct management under disasters whereby the laws and ethical consideration are met where coordination is explicitly done among the various stakeholders.

Chapter 4: Wayanad District: A Profile.

Wayanad is a region in the Western Ghats that is characterised by its varied and interesting eco systems along with its rich heritage. The steepness of its topography, rainy weather, and unstable geology increase the sensitivity of the environment in this place. Socio-economically the district has a combination of indigenous tribal populace, farmers and small scale entrepreneurs with large populations being vulnerable to different degrees of disaster. The environmental hazards in Wayanad are important phenomena to be studied because of their ecological and economic peculiarities. The area has experienced recurrent natural disasters, such as floods, landslides and mudslides, especially in 2018, 2019 and 2024. Also, the anthropogenic risks which include deforestation, land degradation and unregulated development have aggravated environmental weaknesses. Socially and economically marginalized groups, especially indigenous tribes that depend on the forest resources should be taken into consideration in the risk assessment in Wayanad. Agriculture and tourism are the two major economic activities of the district that are at risk due to environmental-related risks such as loss of biodiversity, soil erosion, among others. The resilience problem could be addressed with disaster preparedness, which is based on the integration of conventional knowledge with scientific methods. Early warning and afforestation programs are areas of government and NGO involvement that are important in reducing such risks.

Chapter 5: Civil Society Intervention in the Disaster management

Extreme events in recent years like the 2018 and 2019 landslides in Wayanad have brought into the limelight the role of civil society in helping rehabilitate disaster-affected populations. The consequences of these events were loss of infrastructural properties, displacement of population and economic losses. An elaborate case study of a large scale landslide disaster in Wayanad helps in providing response activities of government circles mixed with civil society organizations. The cooperation of government agencies and NGOs is essential in the program of resources mobilization and relief work. Nevertheless, issues of disaster recovery still arise such as those related to bureaucratic delays, insufficiency in

compensation, and land-use controversies. Local governance institutions like Pancha-yats, district administration are also important in the implementation of rehabilitation programs. The implementation of policy has challenges such as lack of stringent application of the land use policies and conflicts between development and conservation processes. Long-range ecological and social consequences of recurrent disasters comprise loss of biodiversity, change in patterns of land use and destabilization of local subsistence economies. The social economic inequalities are increased by migration and displacement especially amongst the marginalized communities. The next challenges of disaster management demand a holistic approach whereby there is a way to interlink sustainable development, environmental conservation, and community involvement into one. The lamentation of most villages in Jabal as well as the scale of damage in Sidi Moussa and other villages shows that there is need to build resilience systems to future disasters by strengthening early warning systems, facilitating afforestation and reinforcing local governance mechanisms.

Chapter 6: Major Findings and Conclusion

This chapter describes the main results of the investigation and provides the recommendations regarding the enhancement of disaster management and engagement of civil society in Wayanad. The results underscore the importance of having civil society in disaster response, the policy implementation failures and the socio-environmental weaknesses peculiar to the area. Measures that are proposed to improve disaster resilience are the strain of institutional structures, cultivation of partnership between government and civil society as well as sustainable environmental living. The areas of policy recommendations include difficulties with finding stricter land-use regulations, better early warning systems, and integrative rehabilitation programs. Wayanad can be on the path to a less disaster-prone and more sustainable future by dealing with those challenges.

Chapter 6: Recommendation

CHAPTER-2

CIVIL SOCIETY ORGANIZATIONS: A THEORETICAL OVERVIEW

2.1 Introduction

Civil society is a term that describes the communities and organizations that act independently of the government in order to support and advocate for particular individuals or social issues. In society, organizations are formed with the knowledge that working together may result in notable accomplishments and the capacity to overcome obstacles. Today's civil societies are essentially the embodiment of the larger trend of coming together and staying together to achieve common goals. Civil society is acknowledged as the third sector of society because of the significant contributions that it contributes to the development of the country via its activities. A non-profit organization that is organized locally, nationally, or internationally to promote social or political objectives like environmental preservation or humanitarian causes is known as a non-governmental organization (NGO), or civil society groups.

The idea of civil society, which is acknowledged as the third sector and the foundation of society, became important in the 21st century. Civil society is made up of people in the social sphere who have a variety of connections and interests. It also includes non-governmental, non social movement and community-based organizations. Most civil society organizations, regardless of location, share fundamental principles: they are not-for-profit, non-commercial, and collective, uphold accountability and transparency, maintain a civilian and civilized ethos, are privately run for a public purpose, and are dedicated to the public good. They typically have some degree of representativeness and operate in a consensual and non-coercive manner. Ideally, they are self-sufficient and internally democratic. Very simply two or more people tie together for a specific interest can also be called civil society.

Evolution of the Concept of Civil Society

Traditionally, the concept of civil society has existed in two dissimilar forms. According to the natural order view, civil society means a political community (koinonia politike or societas civilis). According to the natural order view, civil society means a political community where society and the state are not distinct. Here, civil society and the state are synonymous, with relations of power in the form of laws and institutions determining how society is ordered in order to preserve social harmony (Ellis, 2000).

In the second perspective, civil society is conceptualized as a self-governing and self-regulating sphere external to, and at times against, the state. It is characterized as a system of social associations that advance civility, social solidarity, and moral values and a marketplace for reciprocal economic relations among economic actors who are engaged in market activity (Islamoglu, 2015).

Koinonia Politike and its Historical Modulations:- In classical Greek and Roman political theory, the concept of civil society as a political community was wider than the legal category of citizenship. For Aristotle (384–322 BCE), political community (koinonia politike) acknowledged that individuals lived in various social domains and possessed diverse status by property talents, and capabilities. Politics, according to him, was the art of employing institutions and laws to frame these areas so as to form an orderly and equitable society. A citizen was one who shared in serving justice and holding public office (Aristotle, 1965).

Athenian city-state citizenship was thus both an ethical and legal condition (Ehrenberg, 1999). Aristotle also incorporated the household into his ethical picture. For him, household production to meet basic needs was "natural," but production intended for commercial gain was "unnatural" and detrimental to ethical order. Aristotle saw justice as needing constraints on merely profit-making activities.

For Cicero (106–43 BCE) and Roman legal theorists, civil society (societas civilis) equated to the res publica (commonwealth) a great group of human beings combined in a concord on justice and devoted to the common good (Cicero, 1988).

Cicero thought that justice resulted from humanity's inherent "social spirit," regulated by reason, which directed individuals to forgo some self-interest in the interest of communal well-being. Composing when Rome had transitioned from a citizen-governed commonwealth of autonomous households to an immense empire with inequality between landlords, traders, peasants, and slaves, Cicero envisioned justice to be the equitable balancing of rights, obligations, and functions within the state. Thus, *societas civilis* referred to groups and individuals regulated by laws and institutions in order to preserve a fluid equilibrium between competing interests.

Until the late 18th century, most western Eurasian societies tended to basically adhere to Aristotle's model of a politically constituted moral community. In Western Europe, however, the concept of *koinonia politike* lost ground during the Middle Ages when political disintegration accorded the Church primacy in politics and social life.

Conversely, the Byzantine Empire maintained the notion of a politically organized community, but the Church was subjected to the political and moral power of the emperor. The Ottoman Empire inherited this practice and mixed it with bureaucratic and hierarchical systems from previous agrarian empires, particularly Persia. This syncretism, having already developed prior to the Ottomans, was shaped by Islamic philosophers who were aware of Plato and Aristotle, along with Persian-trained bureaucratic elites. Although certain Islamic scholars opposed this system, contending that everyone stands equal before God, these conflicts did not create an independent religious authority. Rather, religious leadership continued to fall under political control.

In the Ottoman world, *koinonia politike* took the form of the "just ruler," whose function was to uphold order (*shariah* in the Islamic sense) by averting social disorder. Justice was realized through the establishment of laws and institutions that reconciled the interests of different groups, facilitated household subsistence production, and distributed resources fairly among the holders of power. Thus, ruling entailed continuous negotiation between the ruler and various social groups.

In Western Europe, this Christian notion of a community made by God and embracing all humanity (that is, all Christians) opposed the earlier Greek and Roman notion of a differentiated community established by politics in order to produce social harmony and justice. In *The City of God* (*De Civitate Dei*, 413–426),

St Augustine outlined a vision in which all individuals were equal in the sight of God and together in the universal Church. This was in contrast to the ancient Greek and Roman polis, which acknowledged separate social roles and spheres of existence. Under this Christian paradigm, both the Church and the secular powers that ruled it asserted their right to rule as divinely ordained and hence differentiated themselves from the rest of society.

With the passage of time, there were clashes between the Church and secular authority especially as monarchies expanded their power bases — resulting in a segmentation of social life into two spheres: the spiritual sphere, which was controlled by the Church, and the temporal sphere, controlled by kings. During this time, the idea of *koinonia politike* (political community) had a new place in the institution of monarchy. From the fourteenth to the seventeenth century, European kings, who exercised a divine right to govern and frequently possessed absolute power, continued to have to negotiate with various social groups on a daily basis. This period's political society was an exchange system: monarchs offered privileges or entitlements to specific groups of people and individuals in exchange for their loyalty, compliance, or the service they performed. which the monarchy had severed itself from the network of power relations within the political society and had appropriated for itself a separate sphere of power (*l'État politique*). It sought to reintroduce the monarch into the *l'État civil* by means of institutions that would check the absolute authority of the ruler and balance it against the authority of the landed aristocracy, their advocates in the judiciary, and commercial interests (Richter 1998). Kant first employed the notion of civil society, or *bürgerliche Gesellschaft*, in the sense of political society inseparable from the Prussian absolutism of Frederick the Great (1712–1786), which he considered indispensable for social stability. Secondly, *bürgerliche Gesellschaft* referred to the public

sphere or a domain of literate citizenry that was separate from the arena of political power and action. Kant regarded the political arena as the reserve of the state, or the ruler. *Bürgerliche Gesellschaft* referred to a sphere 'beyond the political order,' 'beyond the particularistic concerns of political action' where practical issues of governance could be debated on the basis of universal principles of reason. For Kant, the critical practice of exposing actual state policies to the light of universal reason could act to restrain the absolute power of the ruler as well as legitimizing his power (Ellis 2000). Kant's *bürgerliche Gesellschaft* was composed of individuals from the Prussian bureaucratic and bourgeois elites, educated and trained in state schools and administrative offices, as well as members of social clubs and associations, who could by dint of reason rise beyond the trappings of class or official status. The thinkers of the Scottish Enlightenment who addressed the issue of civil society did not limit themselves to the issue of restraints to centralized state authority. Adam Ferguson pointed to the corrosion of civic spirit in political society, where the successful commercial classes became servile to the administrative state, which provided them with a 'rule of law' but deprived them of their traditional rights (Keane 1988, Ferguson 1995). He conceived of civil society as networks of self-governing and self-regulating voluntary associations, such as self-help groups and 'friendly' or charitable societies, which had expanded rapidly in the eighteenth century and, in Britain, played an important part in poverty relief efforts. Ferguson pointed to the potential of voluntary associations for engendering civility beyond the special interests of state administration and the commercial classes. The central question facing Ferguson and other eighteenth century European thinkers was how society increasingly differentiated administratively and economically, could remain integrated and harmonious. For Ferguson, as for his compatriot, David Hume (1711-1776), civility was the basis for social cohesion, and he saw it as rooted in sociability or moral and emotional communication among persons 'that fostered social bonds and friendships and cultivated manners and moral tastes' (Trentmann 2000). Ferguson did not place civil society in opposition to the state; rather, civil society constituted a protective shield from the uncertainties of social and political life.

Civil Society and the Third Sector: Conceptual Overlaps and Cautions

Adalbert Evers (2009) discusses the prevalent tendency in public policy debates and third-sector research to equate *civil society* with the *organized civil society* of the third sector—primarily NGOs, non-profits, and service-providing associations. Influenced by thinkers like Putnam (1993, 2000), this perspective emphasizes the role of such organizations in fostering trust, civic engagement, and democratic participation. While this linkage highlights the economic and social dimensions of civil society, Evers cautions against making the concepts synonymous. Civil society extends beyond third-sector organizations, as schools, workplaces, markets, and state institutions also contribute to civic culture. He argues for studying the interactive processes among state, market, community, and third sector, and for recognizing the varied democratic impacts of different organizations. Overemphasis on service-providing TSOs risks neglecting advocacy, rights-based, and watchdog functions essential for a vibrant democracy (Evers, 2009).

Adam Ferguson, a Scottish Enlightenment philosopher, defined civil society as the "civility" that follows civilization. This liminal space between the state and civil society is dynamic and can include official institutions as well as unofficial networks like neighborhood associations, clubs, unions, movements, and actions. One of the most important ideas in contemporary society is civil society, which is inspiring positive social change all across the world. It now represents a wide range of communication between groups that are organized and have different goals and ideals, such as associations, clubs, trade unions, social movements, NGOs, registered charities, and community groups .(Jayaram.N. , 2005,p.17)

According to Jurgen Habermas (Habermas,2007), the core of civil society is formed by a system of associations which institutionalize problem-solving discourses on questions of general interest within the framework of the public. Civil society encompasses the realm of voluntary collective endeavors driven by shared interests, goals, and principles. It encompasses all voluntary civic and social groups. It covers all voluntarily formed social and civic organizations. The boundaries between civil society, the state, the family, and the market are often complex, ill-

defined, and open to negotiation, despite being conceptually distinct from those of the government, the family, and the market. Variations in formality, independence, and influence are common among the spaces, participants, and organizational structures that comprise civil society. Kaviraj and Khilnani (2001) observed that dissatisfaction with political boundaries and the weakening of party politics in Western societies has led to renewed interest in civil society as a way to revitalize public life. In the Global South, civil society gained importance after the decline of political systems that emerged post-World War II. In the East, the term is often loosely connected to markets and private property rights. Globally, thinkers from regions like South America, India, China, Africa, and Southeast Asia are adding depth and significance to the concept. Moreover, lenders and international organizations have also shown a growing interest in civil society.

There exist three interrelated definitions of civil society. In the first place, as a type of social action; secondly, as a sphere or domain that is associated with the state, economy, and private spheres but is different from them; and in the third place, as the focal point of a project or draft that has retained some aspects of utopianism (Kocka, 2006)

As a specific type of social action, 'civil society' is characterized by the fact that it;

- *Is oriented towards conflict, discourse, compromise, and understanding in public: civil society is realized in the public sphere;*
- *Stresses individual independence and collective self organization;*
- *Recognize plurality, difference and tension as legitimate;*
- *Operates non- violently*
- *Is related to general issues; it is frequently oriented towards something like the 'common good' even if different actors and groups usually have very different opinions about what constitutes the common good*

The British academician Mary Kaldor (2003), in their understanding the civil society summarized in five versions, is following;

Table 2.1
Classification of Civil Society

Type of society	Territorially bounded	Global
Societas civilis	Rule of law	Cosmopolitan order
Bürgerliche Gesellschaft	All organized social life between the state and the family	Economic, social and cultural globalization
Activist	Social movements, civic activists	A global public sphere
Neoliberal	Charities, voluntary associations, third sector	Privatization of democracy building, humanitarianism
Post modern	Nationalists, fundamentalists as well as above	Plurality of global networks of contestation

(Source:-Kaldor, M., 2003)

Fukuyama says that civil society serves to balance the power of the state and to protect individuals from the state's power and the drive for consent affects human nature and leads to the emergence of civil society, which he regards as the apex of historical progress (Fukuyama, 2000 p.8).

Key Roles of Civil Society:

1. Upholding Civil Liberties
2. Ensuring Accountability of Government
3. Mobilization of Citizens
4. Policy Formulation
5. Implementation of Policies and Programs
6. Providing Feedback to Government
7. Capacity Building
8. Partners in Social Development

9. Providing a Platform for Vulnerable Sections
10. Human Rights Protection
11. Environmental Conservation
12. Global Networking and Solidarity

The collective efforts of individuals, organizations, and networks throughout the world to accomplish common goals and address global issues are referred to as global civil society. Non-governmental organizations (NGOs), local communities, social movements, and grassroots groupings are among its varied participants. In order to influence global agendas, promote social justice, advance human rights, and hold powerful institutions and governments accountable, global civil society is essential. However, it has certain challenges that need to be addressed in order to preserve its efficacy and allow for additional advancement (*Global Civil Society Challenges in the Global New Order*, n.d.).

Global Civil Society Obstacles

- *Civic Space Is Declining: The diminishing civic space is one of the biggest problems facing civil society worldwide. The freedom of civil society groups to function is restricted by the governments of many nations. Significant barriers are created by laws that limit the freedoms of association, expression, and assembly.*
- *Financial Limitations: Due to erratic donor support and the concentration of cash in some sectors, which leaves other causes underfunded, civil society organizations (CSOs) frequently experience financial instability. Effectiveness and long-term planning are impacted by this unpredictability.*
- *Inequality and Unbalanced Power: Resources are frequently insufficient for marginalized populations to fully engage in civic society. Furthermore, disparities in authority within CSOs might make it more difficult to collaborate and include different viewpoints.*

- *The Digital Divide Even if technology improves mobilization and communication, access to digital tools is still uneven. CSOs are unable to successfully engage in online activism due to censorship, limited internet access, and low digital literacy.*
- *Taking advantage of and manipulating Through financing or laws, governments, businesses, and other influential people can co-opt CSOs, undermining their efficacy and independence.*
- *Repression of Politics In certain nations, groups and activists are subjected to threats, harassment, and incarceration. Such persecution suppresses dissent and hinders advancements in human rights and social fairness.*
- *Sustainability and the Climate Crisis Given the scope of the climate catastrophe, increased cooperation and creative solutions are needed. Although CSOs are essential in promoting climate justice, systemic solutions are necessary due to the complexity of environmental problems.*
- *Accountability and Openness Credibility and trust depend on maintaining transparency and accountability. Collaboration and public trust can be weakened by poor governance procedures.*
- *Competition and Fragmentation The existence of many groups addressing related problems may lead to resource waste and duplication of effort. Impact may be increased by enhancing cooperation and coordination.*
- *Fake news and misinformation The dissemination of false information damages public confidence and calls into question the legitimacy of CSOs. Fighting this problem requires promoting media literacy and fact-checking.*
- *Moral Conundrums Maintaining integrity while juggling resource demands is a never-ending task. Risks must be carefully considered by CSOs when collaborating with stakeholders.*

- *Linguistic and Cultural Barriers* It can be difficult to collaborate and communicate effectively in diverse cultural and language environments. It is essential to spend money on cultural awareness and translation services.
- *Limitations on Resources* CSOs' capacity to continue making an effect is hampered by a lack of financing, a shortage of human resources, and technical obstacles.

Challenges Faced by Civil Society Organizations (CSOs) within the state.

Financial Depends

Many CSOs struggle with insufficient funding as the communities they serve often lack the means to provide financial support. As a result, these organizations rely heavily on funds from governments, non-governmental bodies, and international institutions. The introduction of stricter regulations, such as the FCRA Amendment Act of 2020, has further exacerbated their financial challenges (Rau's IAS Study Circle, 2023).

Shortage of Skilled Staff

The voluntary sector faces a significant lack of trained and professional personnel. Many individuals working in CSOs are unqualified or lack the necessary skills, which limits the effectiveness of these organizations (Rau's IAS Study Circle, 2023).

Accountability Concerns

Accountability remains a critical issue for CSOs, with instances of fund misuse raising concerns about transparency. For instance, in January 2017, the Supreme Court of India ordered an audit of nearly 3 million NGOs after many failed to provide proper accounts of their expenditures (Rau's IAS Study Circle, 2023).

Government-CSO Relations

Welfare programs and contributing to policy-making, the relationship is often strained. Bureaucratic inefficiencies, rigid attitudes, and a lack of mutual

understanding have created barriers, hindering collaboration between CSOs and the government (Rau's IAS Study Circle, 2023).

Narrow Interests

At times, CSOs may be swayed by the priorities of their donors or supporters, leading them to focus on specific agendas rather than the broader public interest. This influence can result in these organizations advancing the interests of certain groups or individuals instead of working for the common good (Rau's IAS Study Circle, 2023).

Sources and progression of civil society

Civil society has been understood differently over time, shaped by challenges to liberal ideas about it. Thinkers in the 17th and 18th centuries linked the term to both conservative and radical goals. Cicero (106–43 BC) defined civil society, or the commonwealth, as a community of individuals united by shared values and beliefs, working together with justice and cooperation. Simply put, it is a collection of individuals living in a community (Anjum, 2010).

The term "civil society" originally referred to a political community characterized by size, urban development, and governance under the rule of law, contrasting with so-called barbaric or undeveloped societies. During the 17th and 18th centuries, European thinkers redefined the concept, leading to three main interpretations, though not an exhaustive list. Enlightenment thinkers like John Locke and Thomas Hobbes examined civil society's role in shaping and legitimizing political authority, rejecting the ancient Greek view that societies could be categorized based on their political systems. Instead, they argued that society existed before and influenced the formation of political power. Unlike philosophers such as Aristotle and Plato, Enlightenment thinkers like Edwards saw civil society as a safeguard against government overreach. They emphasized the role of voluntary groups in protecting individual rights and promoting liberty, marking a shift from traditional ideas linking civil society more closely to the state (Edwards, 2009).

Civil society was conceptually and morally independent of the state, according to a unique perspective that became apparent in German thought during the 19th century. The two were seen as distinct entities in this perspective, possibly even opposites. Between and partially overlapping with these perspectives, another enduring idea surfaced in the theories of well-known political economy theorists from the Scottish tradition of the eighteenth century, such as Adam Smith and Francis Hutcheson. They suggested that the development of an independent commercial order should be understood as a precursor to the emergence of civil society. In this arrangement, an autonomous public sphere coexisted with complex interdependencies between primarily self-interested individuals. This perspective saw the two as distinct entities. The common interests of society could be pursued in this public domain. In thinking about civil society, the idea that the public has its own "opinion" on issues of shared concern became more prevalent, especially with the emergence of venues like newspapers, coffee shops, peer groups and political gatherings that allow for the free exchange of ideas. According to John Keane, the term 'civil society' it can be traced back to *societas civilis* in the Aristotelian tradition. For centuries it has been a central concept in European thought about politics and society. Its connotations have varied, but it has almost always dealt with social and political life beyond the domestic sphere of home and family, it has usually referred to issues of community beyond the particular: that is, to the general and political. It is often normative and emphatic in nature (Keane, 2006, p.38).

During the seventeenth and eighteenth centuries, civil society, also known as "société civile" in French and "Zivilgesellschaft" or "Bürgerschaft" in German, evolved under the influence of Enlightenment thinkers like John Locke, Adam Ferguson, Rousseau, Montesquieu, and others. In this era, civil society represented an ideal of a harmonious society where individuals would coexist peacefully, demonstrate political maturity, and engage actively in public life while preserving personal autonomy. It aimed to prioritize independence, freedom, and lawful governance, rejecting authoritarian control. Moreover, it tried to be inclusive and to diminish social inequalities without focusing on the classical hierarchical differences of birth or position. The idea of the civil society is one that rose up in response to the

absolutist state and represents such anti-absolutist ideals. It germinated the social organization of people and groups and it gave an anti corporatism vision. Although it initially had an utopian and a critical view to the traditional norms, in the nineteenth century the concept changed as capitalism and industrialization emerged. Under the influence of such philosophers as Hegel and Marx, the 'civil society' became to be characterized by economic conditions, the labor relations and certain interests, making it closer to a 'middle-class society' or a 'bourgeoisie'. German In German, beneferent terms such as *Zivilgesellschaft* and toward the end *Bürgergesellschaft* were overtaken by *burgk÷liche Gesellschaft*, which even in its neutral use was used with a pejorative connotation until the late twentieth century. Whereas in English and French terms, despite some recent developments, the civil society remained positive until the period of Tocqueville, other countries followed the contrary and until some time during the 1980s, a negative charge arose over the use of the term. Notable exceptions include, again, Gramsci. The term civil society saw some revival around 1980, especially in Central Eastern Europe, where Vaclav Havel, Bronislaw Geremek, Gyorgy Konrad and Ivan Szelenyi employed it as a means of opposing one-party dictatorship, Soviet influence and totalitarianism. They proclaimed the ideas of freedom, pluralism and social autonomy.

Similar movements had previously emerged in regions like Latin America and South Africa. Presently, the term maintains a consistently positive connotation and is embraced by individuals across the political spectrum, including centrists, leftists, liberals, communitarians, anti-globalization activists, and social scientists like John Keane, Ralph Dahrendorf, Charles Taylor, and Jürgen Habermas.

To mitigate the critical and polemical connotations associated with 'bürgerliche Gesellschaft,' the term has been retranslated into German as 'Zivilgesellschaft.' By the end of the twentieth century, it became evident that eighteenth-century ideas had resurged in significance, notably as 'civil society' became a focal point in the successful struggle against dictatorships, representing one of the most egregious violations of civil society in the century. Even in the non-dictatorial Western world, the term 'civil society' holds relevance, reflecting

prevailing political and intellectual sentiments. Firstly, it underscores self-organization and individual responsibility, echoing widespread skepticism towards excessive state intervention and a growing belief that the interventionist welfare state is approaching its limits and becoming burdensome due to overregulation.

Secondly, 'civil society,' as seen in contemporary anti-globalization movements, offers an alternative to unchecked capitalism prevalent worldwide. Thus, the term embodies a new critique of capitalism, as the principles of civil society—marked by discourse, conflict, and consensus—propose solutions divergent from those grounded in market logic, which prioritize competition, exchange, and individual gains. The behaviour of the civil society is based more on civic participation and the search of the common purpose especially in late and post-industrial inter-such periods where individualism is stronger and division exists regarding society. The understanding of a civil society has become a decisive paradigm in terms of the cohesion of such societies particularly in Anglo-American discussions of the third way and the German theory of the *Zivilgesellschaft*. This discussion highlights the necessity to rethink the political relationship between politics, society and market, as well as the ethical foundation of the process of governance and community, which makes the issue of civil society one of the main topics of the present-day discussions in the field of public policy.

A summary of the history points out two facts. First of all, the term 'civil society' itself has both a normative and a descriptive side, which opens a potential avenue of subtle inquiry. Secondly, its rivals have changed over the years and altered in terms of relative importance. Although traditionally in its conception allied with such phenomena as the market and involvement by citizens, the modern discourse of the concept of civil society actually tends to demarcate the market factor that has become too strong and far-reaching in the face of world capitalism. This difference indicates a transcendence over previous beliefs which held the civil society goes hand in hand with the economy. Additionally, the emergence of individualism and social divisiveness in the post-modern age adds impetus to the need of stressing communitarian and unifying values in civil society opposing the

previous decades. Therefore, it exhibits reinvigorated attention to the social aspects of civil society in the context of modern obstacles.

Classical view of civil society

There has always been within the idealistic utopian views widespread belief that civil society and the state are essentially the same. The suspicion of the liberal formulation of civil society has led to multiple definitions of civil society meaning and opportunities, conservative as well as radical dreams. In a long process, the addition of different interpretations to the concept of civil society in political thought has gone through some colorful and sensational developments, and is way off in regard to the present-day application. Ancient philosophers stressed the idea of a good or ideal life and argued about which means could allow people to attain it. Also, political debates in the ancient time stressed on the necessity of attaining a harmonious good society to uphold peace and order in the society. The ideal society according to Plato was one in which people were devoted to the common good, which envisaged the civic virtues such as wisdom, courage, moderation, and justice as well as people doing what they were capable of doing in character. In his view, it was the role of the so called philosopher king to tend to the welfare of the people. Aristotle however, considered the city-state (polis) as a whole of mutually related groups, and thus citizens could engage in morally good practices of ruling and being ruled. This statement, in the form of association of associations conveys the thought of Aristotle populace of gemeinschaft. A political community with a given size (typically several cities) governed by the rule of law, which was particularly sophisticated, and in which many cities could coexist with the community of one type, is what the Roman author Cicero referred to as *sigma: euroquotta certain hominem civiliter, oriell principia cantabrigia commentaries (wounded in the skull) quotroc₂Im spherC idx /*llette plantae vita ut plura I notoriously omitted to mention, suppose, in a community whose size should be moderate, and consisting commonly of numerous cities. This idea set these communities apart from societies that were primitive or undeveloped. Many European intellectuals reinterpreted this idea during the course of the 17th and 18th centuries, which changed the meanings attached to*

civil society (social brittanica, 2007). According to Aristotle, the polis is an assembly of different groups that enables qualified individuals to take part in virtue-driven activities and both rule and be governed. According to this viewpoint, the state represented the "civil" side of society, with "civility" denoting standards of good citizenship (Edwards, 2004).

Modern approach to civil society

Civil society and Hegemony- Gramsci

Gramsci viewed civil society as the manifestation of hegemony, representing entrenched power dynamics among societal groups within a specific historical and political context, forming what he termed a "historic bloc." Hegemony entails more than mere dominance, requiring guidance or consensual leadership. It extends beyond economic interests to include an ethical-political dimension. Gramsci suggested that maintaining hegemony might necessitate the dominant group sacrificing some economic interests. Similar to Foucault, Gramsci associated civil society discourse with liberalism and its challenges. He perceived the bourgeoisie as a morally expansionist class aiming to culturally and economically assimilate society entirely. Indeed, according to Gramsci, the bourgeoisie is a morally expansionist class that wants to absorb society as a whole, both economically and culturally. For the sake of a hegemonic State, the bourgeoisie promotes uniformity. Repression softens as the State gets older. When civil society flourishes and blurs the lines between politics and civil society, true hegemony emerges. Totalitarianism encounters opposition in its quest for absolute control. In developed countries, civil society frequently outweighs official authority. The lack of a sophisticated civic society is what made the Russian Revolution successful. Due to a robust civil society, revolution in the West involves meticulous planning over an extended period of time. In the end, civil society creates a hegemonic State that is incredibly legitimate.

Civil Society by Hegel.

According to Hegel, after family individual growth occurs within civil society, which he defines as "ethical life in its stage of division." Individuals emphasize their personal interests over the common good, resulting in the collapse of the family unit. Individuals in civil society connect to one another based on self-interest and the rule of law, not family attachment. They are still bonded by their ethical upbringing at home, cooperative experiences, and shared customs. Regardless of this divide, human activities in civil society are regarded ethical since they convey personal goals within an ethical framework. For Hegel, the concept of right, as it relates to ethical life in the state, comes before its manifestation in the family and civil society. Family and civil society come from ethical life, which is defined as the combination of self-conscious freedom and political institution. Individuals exercise their freedom in civil society by engaging in behaviors that represent not just their own economic freedom, but also a larger universal freedom mediated by legal awareness and institutional existence. Individuals benefit from the civil society process, which educates people from self-interest to a more universal ethical living. Individuals are socialized as a result of their education, and their abilities, personality, and habits take on a social character. Civil society institutions evolve both naturally via individual activities and interactions, as well as through the discipline of individual interests to coincide with those of the community. Legitimate social structures emerge when an ethical community intends to discipline individual wills while representing universal connections.

Marx and civil society

The Marxist critique of Hegel's vision of the state and civil society influenced Marx's early theoretical progress toward communism. Marx criticized Hegel's focus on the state as the major organizing force of society, arguing that material concerns, particularly those linked to property, were the primary motivators of politics. He saw that in civil society, the public and private realms had separated, resulting in an abstract equality in the contemporary state that contradicted actual socioeconomic reality. Religion, property, and other components of private life had

been confined to the private realm, but Marx claimed that they continued to have a substantial impact on public affairs. The legal separation of religion and property from politics did not reduce their grip on people; rather, it permitted bourgeois society to exert influence over the state while freeing civil society from governmental intervention. Marx's criticism of Hegel's state extended to bourgeois society, prompting him to call for a social revolution aimed at abolishing social classes. He positioned the proletariat at the heart of this revolution, viewing their propertylessness as the polar opposite of civil society. Marx's dedication to human freedom grew into a larger battle against capitalism and the social connections it created. However, Marx's theory of the state entailed inconsistencies since it relied on the use of state power to overturn the state and impose class dictatorship against social classes. Marx's failure to completely comprehend the intricacies of the interaction between a revolutionary state and an untransformed society became obvious in practice, but his insights into these challenges informed current state-society theory. Lenin, in particular, wrestled with these complications, influencing future understandings of the link between politics, revolution, and social transformation (Ehrenberg, 2018).

Civil society by Alexis de Tocqueville

Alexis de Tocqueville. Tocqueville's essay "Democracy in America" added a new depth to the notion. The link between civil society and democracy may be traced back to early liberal writings of civil society by distinguishing three types of society: the state, civil society, and political society. Tocqueville defined the state as the official political representation, which included parliamentary assemblies, courts, bureaucracy, police, and the army. In contrast, civil society was portrayed as the sphere of private interests and economic activity, agreeing with Marx's definition of the capitalist economy. However, Tocqueville introduced a critical dimension to the idea of political society. Tocqueville defines political society as the intersection of civil and political relationships. He recognized that civic associations help political associations and vice versa, so reinforcing one another. Tocqueville stressed that political affiliations generate numerous civil associations, and in countries where

political associations are forbidden, civil organizations are restricted in number and effectiveness. Tocqueville cautioned against excessive government participation in civic groups, which may lead to reliance on the government and weaken social cohesiveness. As a result, he emphasized the significance of balancing political power with civil society autonomy. In short, Tocqueville's definition of civil society extends beyond the state and law enforcement, highlighting the role of civic and political groups in promoting democracy and social cohesiveness (Chakrabarty, 2016).

The perspective of Michael Walzer on Civil Society.

Michael Walzer has set out a unique interpretation of civil society, which adds to and extends the positions of the Communitarian, Social Conservative and Left-Progressive schools. His thinking is similar to the Communitarian tradition and views sympathetically with the Left-Progressive attitude towards the new social movements. But Walzer pays more attention to aspects closer to the Liberal tradition of valuing individualism and being wary of additional responsibilities and solidarities enforced collectively or by a government (Karp & Sullivan, 1997). Walzer asserts that, in addition to a descriptive social category, civil society is also a moral project. He understands it as the historical result of the conflict to toleration, which reached back to John Locke and his defence of religious toleration in Europe of the seventeenth century. In his opinion, the patience and tolerance of social groups comes to be reflected in civil society through its gradual institutionalization. This tolerance encourages moderation of the political goals of a democratic society, and pluralism. Walzer finds the new social movements attractive in that they are not passionate about achieving some kind of totalitarian utopia, but focus on compromise within a pluralist order. Significantly, in pressing his claim that the value of the civil society can and should be understood not as a civic role but as a civil quality of restraint, tolerance, and bringing the levels of social and political struggle down, Walzer does so by resorting to another distinctive feature of the civil society since, unlike the state, it does not have its own police. He, however, does note its paradoxes, as well. Civil society cannot substitute the state, because the state

sets the scene in which civil society operates, and the coercive power required to guard society against such inequalities as those based in markets, gender or race. At the same time Walzer cautions against too much communal and/or majoritarian declarations of common norms which may imperil minority rights. In such a way, he views modern politics as a precarious trade off with the state needing a counterweight through the redemptive power of civil society (Karp & Sullivan, 1997).

Postmodern View of Civil Society

The postmodern version must be linked to the rupture with modernity, a crucial component of which was the nation-state. Naresh Dadhich in his book, “contemporary political theory, 2019), remains that “civil society as a concept has been used in various ways that can be considered very significant: 1) it is a check on state power. 2) it is a democratic space for the voices of marginalized section. Even if postmodernists are anti-teleological, they see the current global contestation as an opportunity to break with grand narratives, teleological political objectives linked with nations. The emergence of the internet allows for a riot of virtuality and a rejection of the existence of something called reality (Kaldor,2003). In the twentieth century, there has been a refinement in the definition of civil society to encompass forms of social interaction distinct from both governmental structures and economic markets. The contemporary understanding of civil society in the postmodern context is contingent upon factors such as globalization, global commerce, and the democratization process. Renowned German sociologist and philosopher Jürgen Habermas (born 1929) delved into the emergence of the public sphere during the eighteenth century in Britain, France, and Germany. He highlighted its evolution from familial settings into arenas for socio-political discourse. These public spheres encompassed various forums including political clubs, literary salons, public assemblies, taverns, coffeehouses, meeting halls, and other communal spaces where socio-political deliberations occurred. During this historical period, individuals and groups wielded influence over public opinion, articulated their demands and interests, and impacted political processes. The

bourgeois public sphere facilitated the creation of a collective public opinion that countered state authority and vested interests. Habermas conceptualized the public sphere as an intermediate space between the private realms of civil society, dominated by personal interests, and the sphere of state authority, often characterized by arbitrary power dynamics. Central to the functioning of the public sphere were principles advocating for open discourse on matters of collective importance, wherein reasoned argumentation served to ascertain common interests and promote the public good. Consequently, the public sphere presupposed freedoms such as freedom of speech and assembly, a free press, and the right to actively engage in political discourse and decision-making processes (Habermas.J.2007).

Contemporary liberal thinkers, on the other hand, perceive civil society as a fundamental component within democratic governance frameworks. Michael Walzer elucidates that a democratic state is integral for the establishment of a democratic civil society, and conversely, only a democratic civil society can uphold a democratic state. He argues that the civility necessary for democratic political processes is cultivated within the realm of voluntary associations, where individuals interact freely. Moreover, the equitable distribution of capabilities across these associations, which sustains their functioning, must be nurtured by the democratic state. Walzer defines civil society as both the domain of voluntary human interaction devoid of coercion and the collection of rational associations formed for familial, religious, economic, and ideological purposes” (Walzer.M,2003). According to Francis Fukuyama, civil society has a considerable impact on people' capacities. He contends that if the state takes responsibility for coordinating all elements of society life, individuals may become dependent on it, reducing their natural ability to interact autonomously. Fukuyama claims that the historical story of human growth, marked by ideological struggles, has essentially completed, culminating in the universal embrace of liberal democracy following the Cold War's end and the fall of the Berlin Wall in 1989. Civil society, he believes, fulfills the human desire for acknowledgment and has the potential to be the conclusion of historical progress (Fukuyama.F, 2000).

Indian Concepts Of Civil Society

India has a long history of volunteer service, founded on the ideals of duty (dharma) and generosity (daana). These ideals are profoundly established in teachings from numerous religious traditions, urging people to help others in need. Furthermore, a sizable section of the population believes in karma, which holds that good actions done in this life will be repaid in the future incarnation, and vice versa. This Hinduism-based philosophy fosters the country's tradition of volunteer service. Thus, in India, voluntary donations have emerged as a result of social and religious groups committed to helping others. Prior to independence, various reformers emerged to address systematic socioeconomic inequities and challenge dominant society norms. In the view of Beher, Amitab and Prakash.A(2004) During the colonial era, India's civil society saw substantial mobilization, but the growth of both the state and civil society in India differed from that of Western Europe(Berglund H.2009, p.21). Civil society in India was a plural space, where at least seven categories of organisations and associations pursued different but not necessarily incompatible ends. The rise of civil society in India prompted the formation of several groups committed to assisting the underprivileged, including the Brahmo Samaj, Theosophical Society, Ramakrishna Mission, and Seva Samiti. However, at this time, voluntary organizations were frequently chaotic and mostly focused on relief activities. The foundation of the Sir Dorabji Tata Graduate School of Social Work, subsequently known as the Tata Institute of Social Sciences, was essential in shaping community development techniques. Mahatma Gandhi's campaign for social welfare in the early twentieth century fueled the expansion of voluntary action, motivating countless groups driven by his concepts of self-reliance and improving society's weakest members (Neera Chandhoke,2012).

In pre-modern India, the strength of civil society was primarily due to good governance supported by traditional communal organizations. Andre Beteille fiercely rejects the concept that increasing public empowerment at the expense of governmental authority promotes the expansion of civil society, finding such a

proposition harmful. Instead, he proposes a symbiotic connection between the state and civil society, highlighting their complementary functions. A detailed understanding of civil society demands acknowledging its complex interplay within a triadic framework that includes the state, citizenship, and intermediate institutions. Beteille further connects civil society with individual autonomy ideals, placing it within the framework of a secular society. Echoing these sentiments, Neera Chandoke emphasizes the uniqueness of civil society, regardless of its constituent components—whether associations, voluntary organizations, or social movements—perceiving it as a distinct domain, separate from both state apparatuses and market forces, and independent of their establishment (Vinod and Deshpande,2016).

Rajni Kothari perceives civil society as a vehicle for empowering ordinary citizens. He contends that the state has relinquished its role as a catalyst for change, as well as its duties as a protector and advocate of civil society. Consequently, there is a noticeable inclination towards increased governmental intrusion in the dynamics between the state and civil society. Kothari's works portray civil society as a substitute for the state, thus associating it with non-state, non-governmental entities (Kothari, 1988).

The need for a vigilant 'civil society' has been emphasized by late Indian Prime Minister I.K. Gujral. According to him, the basic requirements for the creation of a civil society are the following:

- The need to build a legal foundation of the state from the top to the bottom to ensure that the laws of the land are universally and impartially enforced
- The need for an independent, efficient judiciary that speedily hand out justice is indispensable for a civil society.
- The government has to be vastly decentralised, with the people given opportunities to govern themselves and take charge of their own affairs.

- The concept that the government is the giver of everything and the sole provider is inimical to the building of such a society.
- The citizen has to realise that what matters is a cooperative coexistence of different interests of society.

Social scientist Neera Chandoke, Rajani Kothari and Deshpande share the activities of Indian civil society, but their emphasis is confined to North India rather than South India. Social struggles and revival movements in the rural areas of southern Indian states which had the most trade and industrial relations with the West during the colonial period have received not enough attention in history. In the nineteenth century, socio-religious reform groups formed, opposing severe caste inequality and advocating for education and access to government jobs for their various communities. The formation of Kerala's civil society and established the framework for the state's fundamental strength: literacy and education for everyone (Heller and Tornquist, 2021. P.3).

Conclusion

In summary, the concept of civil society has evolved significantly over time, reflecting shifting perspectives and societal changes from antiquity to the present day. Initially rooted in Aristotle's notion of associations within a legitimate order, the understanding of civil society expanded in the 18th century with thinkers like Hegel, Marx, and de Tocqueville offering varied interpretations. Hegel and Marx were theorists who plotted the civil society in economic and political terms where the former considered civil society as an aspect of ethical life whereas the latter as a state instrument. De Tocqueville further noted how the civil society serves in between individuals and took a keen interest in its role in maintaining harmony in the society.

In modern thought, there is acknowledgement that civil society is an important element of democracy and the third sector, which consists of nonprofit organizations and groups whose activities represent the interests, values and causes. Such organizations vary in size and scope: they include community groups, social

movements, and others. Although these groups occupy an important position in defining the dynamics of society and tending to the needs of communities. In general, over the years the definition of civil society has changed to be able to accommodate a wide range of activities and institutions, depending on the aims and needs of society in question. As we go ahead dealing with intricacies of contemporary governance and social evolution, the idea of civil society is repeatedly central to security, social engagement and accountability.

CHAPTER 3

ENVIRONMENTAL HAZARDS AND DISASTER MANAGEMENT

A disaster is a sudden, damaging event. It often harms people, property, and the environment. Disasters come in many forms. Nature, human actions, or both can cause them. They typically overwhelm the capacity of affected individuals, communities, or even entire regions to cope with the consequences, necessitating external assistance and resources to manage the situation. According to, “International Federation of Red Cross and Red Crescent Societies”, Disasters are a serious disruption of the functioning of a community that exceeds its capacity to cope using its own resources. Disaster can be caused by natural, man-made and technological hazards, as well as various factors that influence the exposure and vulnerability of a community’ (IFRC,2017).

Disaster is a sudden accident or a natural catastrophe that causes great damage or loss of life and that occurs over a short or a long time. Its original meaning in English was "an unfavourable aspect of a planet or star." The word comes to us through Middle French and the Old Italian word *disastro*, from the Latin prefix *dis-* and Latin *astro*, meaning "star." Another unfortunate word that comes to us from astrological beliefs is "ill-starred." Now generally used in the sense of "unlucky" or "having or destined to a hapless fate," "ill-starred" was originally used literally to describe someone born under or guided by an evil star. We also have *star-crossed*, meaning "not favoured by the stars" or "ill-fated". The ancient people believed that the disaster occurred due to the unfavourable position of the “planet” or “act of god” (Marriam Webster).

Disasters can have far-reaching and devastating consequences, including loss of life, injury, displacement of populations, damage to infrastructure, economic disruptions, and long-term environmental impacts. Disaster management and preparedness are critical to reducing the vulnerability of communities and minimizing the impact of such events. A disaster can be either natural (rain, flood,

cyclone, storm, landslides, earthquake, and volcanoes) or manmade (War including biological, arsons about it, riots, accidents (train, air, ship), industrial accidents, fire, bomb explosion and nuclear explosion (Satsangi, 2017). Generally disasters strike in a sudden area and bring great damage or loss and are not measurable. Because it influences the mental, socio-economic, political and cultural state of the affected area, generally disaster has the following effects in the concerned areas (Kapoor, 2012). Thus, a disaster may have the following main features:

It completely disrupts the normal day-to-day life.

It negatively influences the emergency systems.

Normal needs and processes like food, shelter, health etc. are affected and deteriorate depending on the intensity and severity of the disaster.

Unpredictability

Unfamiliarity Speed

Urgency

Uncertainty

Threat

Generally, there are two categories of disasters: natural and man-made. This can be further classified on the devastation, major or minor natural disasters and major or minor man-made disasters based on the extent of devastation. Some of the disasters are listed here:-

Table 3.1

Classification of major disasters

Major natural disasters	Major man-made disasters
Flood	Setting off fires
Cyclone	Epidemic
Drought	Deforestation
Earthquake	Pollution

(Source: Kapoor, 2012)

Flood

Floods are natural disasters where excessive water covers land, typically caused by heavy rain, storms, snowmelt, or breaches in riverbanks and dams. They have severe consequences, damaging homes, infrastructure, and farmland, displacing communities and disrupting livelihoods. Floods also lead to water source contamination, spreading diseases. Recovery involves rescue operations, rebuilding, and preventive measures. Climate change increases flood frequency and intensity, emphasizing the need for proactive strategies. There are three type of floods, flash floods, river floods and coastal floods(Khanna, 2005)

Cyclone

Cyclones, also known as hurricanes or typhoons in different regions, are powerful tropical storms characterized by strong winds and heavy rains. These meteorological phenomena form over warm ocean waters when the sea surface temperature is above a certain threshold. As warm air over the ocean rises, it creates a low-pressure system, drawing in more air and causing the characteristic swirling motion. The Coriolis effect, resulting from the Earth's rotation, gives cyclones their distinctive circular shape. Cyclones are a source of wide devastation, leading to storm surges, flooding and powerful winds which destroy infrastructure, force communities into evacuation. Early warning systems that are sophisticated are used to help governments and meteorological agencies to give alerts and enable the communities to prepare ahead of cyclones. Preventive measures like quality

construction of infrastructure and coastal resistant protection resources are instrumental in reduction of adverse effects of such severe tropical cyclone storms(Kapoor, 2012)

Draught

Drought refers to an extended duration of unusually little rainfall, which leads to scarcity of water affecting the ecosystem or ecology, agriculture and even people. It is a normal climatic phenomenon whose effects can be enhanced by human intervention and climate change. The presence of drought results in lack of water because of minimal precipitation and maximum evaporation to rivers, lakes and underground water. Agriculture is another area that suffers especially as crops can fail and livestock can be lost. Water shortage is another result of drought, which causes food insecurity, water rationing, and economic problems in the area of impact. The effects of scarcity of water due to drought extend both to the rural and urban communities, and there is need to consider water conservation strategies, better planning of water management, and long-term strategies to ensure resiliency to such adverse climatic conditions (ibid, p.3)

Earthquake

An earthquake can be described as a sudden and violent movement of the ground and this is usually caused by tectonic plates movement deep inside the earth surface. The crust of the Earth is segmented into massive units of compositions called the tectonic plates and with their interaction at the plate boundaries or fault, there is the likelihood of the release of energy in the shape of seismic waves. Epicenter is the point which is on the earth surface at the point of occurrence of an earthquake. It is possible to have different levels of intensity and magnitude of earthquakes and we have to present considerable impacts on the areas concerned. They are able to cause physical building, bridge, infrastructure damage to those properties resulting in loss of life and creating population refugees. Earthquakes are also a common thing in the boundaries of tectonic plates including the Pacific Ring of fire. Seismometers are installed by seismologist in order to monitor and measure seismic activity which can be useful in preparation and early detection systems of

earthquakes in places that are vulnerable to those such earth occurrences. The magnitude determined by analysing seismic data obtained from Seismometers. The intensity of an earth quake is measured using the Modified Mercalli Intensity(MMI) Scale(Satsangi,2017).

Setting of fires

Lighting fires as a man-made event is mostly alarming when there is a deliberate effort that results in the burning of flames, otherwise known as arson. Arson is a criminal offense by which people intentionally set fire with the idea to hurt or harm. Fire-setting of this intention is extremely dangerous and it is possible to lose property, be injured and, even, lose lives. Intentional fires may cause a lot of destruction to an extent of overwhelming the emergency response capabilities. There is the critical need to differentiate between controlled and responsible fire-setting activities, including practices of land management by way of prescribed burning, and purposeful, destructive acts of arson. Stringent control over the violations of the fire safety standards, mass education, and prosecution on arson are highly significant to prevent and mitigate the consequences of anthropogenic fire disasters. The forest face many hazards but most common is forest fires(Khanna, 2005).

Epidemic

As a man-made calamity, an epidemic refers to the rampant manifestation of a given infectious illness amid a well-defined population or geographical region and in most cases human beings aggravate and/or precipitate the epidemic. Causes of epidemics, created by man, may comprise an inefficient healthcare system, lack of sanitation, high levels of population, travel across borders, and hesitation to vaccines. Such issues as the inadequate availability of medical care, the inability of local communities to educate their populations on health issues, or the slow reaction to the outbreaks may contribute to the acceleration of the spread of the infectious disease. The likelihood of zoonotic diseases (those diseases transmitted from animals to humans) can be also raised by human activities, i. e., deforestation, encroachments into wildlife habitats, alteration of agricultural activities, etc. An appropriate combination of prevention and response strategies should include

fortifying health systems, enhancing hygiene and vaccination initiatives, and undertaking regulation on factors that aggravate and enhance the occurrence of epidemics through their social and environmental causes.

Deforestation

Deforestation is a true man-made disaster since it entails wholesome clearance or removal of the forests, mainly caused by human factors. Effects of deforestation are extensive and may be considered largely environmental, social, and economic. Such large scale cutting of trees disturbs the ecosystems and biodiversity which results in entire habitats of thousands of species of both plants and animals destroyed. Climate change is also caused by deforestation whereby fewer trees absorb and store carbon dioxide. Besides, clearing of land, be it through agricultural practices, logging or even the creation of infrastructures usually leads to soil erosion, the disturbance of the water cycle and more sensitive to the natural calamities that may come about through floods. The impacts of deforestation on the local people who rely on forests to earn their livelihoods tend to be negative since traditional knowledge, cultural practices, and the most important source of resources can be lost as a result of this reality. The implementation of sustainable forestry, reforestation, the formulation of policies and regulations to ensure forest protection and conservation are some of the efforts used to deal with deforestation. The realization of the choice of deforestation as a man-made tragedy creates the necessity of the reasonable land-use planning and enhancing the practice of conservation to counteract the negative consequences on deforestation (Murthy, 2012).

Pollutions

Pollution is an umbrella terminology that is used to describe the discharge of pollutants in the environment leading to undesirable modifications. It is a serious anthropogenic catastrophe that has far-reaching consequences on health and the environments of people and the well-being of the globe in general. Pollution can be classified into a variety of types such as: air pollution, water pollution, soil pollution, noise pollution and light pollution. Air pollution is a by-product of the emission of pollutants into air, usually as a by-product of industrial activities, and vehicular

emissions. One of the effects is respiratory issues, climate change and ecosystem destruction. The definition of water pollution means that when pollutants enter a body of water, they have an impact on the aquatic ecosystems and even risk guiding on human health. Water pollution is a result of industrial effluents, rural drainage and improper disposal of wastes. Soil pollution is a process where the soil is polluted with hazardous materials, like industrial chemicals, pesticides and heavy metals. This may impair soils, destroy plant and animal life, and/or affect the food safety. The excessive or disruptive noises in the surrounding environment lead to noise pollution and these disruptions are mostly brought about by industrial environments, transport and development. Being forced to work under such settings of much noise can result in stress, partial or total loss of hearing, and other health complications. Light pollution refers to over-illumination (and misdirection) of artificially produced light in cities and can alter light patterns, influence natural ecosystems, animal behavior, and human circadian rhythms. The improvements on pollution can be realized through a combination of the regulation, technology development, education and sustainability. Any attempts at mitigation and prevention of pollution are of utmost importance to preserving the surroundings and realizing a healthier, more sustainable future. The concept of pollution is the input of damaging substances on the environment which have impacts (adverse) on the ecosystems or the human health. It is a serious man-made catastrophe that occurs in various modes such as air and water, soil, noise and light pollution(Thakur,2014).

War

War has been described as having been also amongst the greatest of human created calamities, in terms of its extent and magnitude of effects on human societies, economic systems and the environment. Armed conflicts result with loss of life, population displacement, destruction of the infrastructure and breakage of important services like that of healthcare and education. The cost of a war transcends in contemporary times of the battle and passes down through generations through the long-lasting impacts on the war survivor in a personal and communal level. War has tremendous economical costs both financially and economically because it affects the finances of a country since resources are taken to defense and

rebuilding. It may have long-term effects as it hampers the development of economic growth and aggravates poverty. The negative effect of a war on the environment is also remarkable, including the devastation of the ecosystem, pollution of water and land, and discharge of pollutants in the course of warfare. In addition, conflicts tend to disrupt international relations, adding geopolitical tension and resulting in the development of long-term social and political cleavage. Humanitarian efforts that are always needed in the post war world are reconstruction, reconciliation and physical and mental health support of aggrieved groups. By acknowledging war as the incredible man-made catastrophe, the directions of conflict avoidance, diplomacy, and international cooperation play an essential role in building peace and stability throughout the world(ibid)

Table 3.2

Minor disasters

Minor Natural disasters	Minor man-made disasters
Cold wave	Road train accidents
Thunderstorms	Food poisoning
Mud slides	Industrial disaster or crisis
Storm	Environmental pollution
Heat wave	Environmental degradations

Disaster management

Disaster management is a field focused on reducing the impact of disasters on people, communities, and the environment. It involves planning and actions to prepare for, respond to, and recover from disasters. The main objectives are to save lives, prevent injuries, and minimize the social, economic, and environmental consequences of disasters. Disaster management does not avert or eliminate the threats instead it focuses on creating plans to decrease the impact of disasters (Gandhi G.N, 2019). Specifically, disaster management is about organizing and directing resources to cope with a disaster and coordinating the roles and responsibilities of responders, private sector organizations, public sector agencies,

nonprofit and faith-based organizations, volunteers, donations, etc. The ultimate goal of the disaster-management leader is to minimize the event's impact, something that involves preparedness, response, recovery and mitigation (University of Central Florida).

Scope of disaster management

The scope of disaster management is broad and encompasses a range of activities aimed at minimizing the impact of disasters, responding effectively when they occur, and facilitating recovery and reconstruction efforts. Disaster management involves a multi-disciplinary approach that integrates various sectors and stakeholders to enhance resilience and reduce vulnerability to disasters. The scope of disaster management is dynamic and evolves as new challenges emerge. It requires a comprehensive and integrated approach that involves the active participation of governments, communities, civil society, and the private sector. Effective disaster management contributes to the overall resilience of societies and helps minimize the human, economic, and environmental impact of disasters.

Objectives of disaster management

Basically, the main objective of disaster management is to reduce the damage. However, there are several objectives are integrated with it.

Those are:

1. Identifying the hazard and its cause.
2. Reducing vulnerability and potential losses of hazard.
3. Assessing, reviewing and controlling the risk.
4. Applying efficient, effective, sustainable relief (food, shelter and money), medical and other facilities in disaster affected people thus they can survive.
5. Reducing the damage, death, sufferings and destruction of any natural and human induced disaster.

6. Giving protection to victims.
7. Increasing the strength among people to survive against disasters.
8. Building up capacity in every sector like- individual, social, economic, environmental, regional, national and international.
9. Ensuring the availability of local emergency equipment and transportation

Aim of disaster management

1. Implementing the disaster management cycle (mitigation, preparedness, response and recovery) in the aspects of disaster management.
2. Quick and effective communication system in every sector.
3. Formulating and implementing disaster management policy, plan, law and regulations in regional, national and global sector.
4. Reporting, analysing and monitoring risk performance, intensity etc.
5. Planning and executing community, society based CDMP (Comprehensive Disaster Management Programme (CDMP), DRR (Disaster Risk Reduction), CRA (Community Risk Assessment), CCRM (Climate Change Risk Management) and HRD (Human Resource Development), risk assessment, vulnerability analysis and reduction etc.
6. Engaging with disaster reduction, training, research, adaptation and management activities.
7. Coordinating and collaborating with all disaster management and related organizations, NGO's, local and international agencies and creating strong network among them.
8. Integrating with all other human, resource and development programs.

Emergency management typically consists of four phases. These phases are often referred to as the "Four Phases of Emergency Management" and include:



Fig. 3.1 Disaster Management Cycle

Response:

Immediate actions taken to save lives, protect property, and meet basic human needs during and after an emergency. This phase involves deploying emergency services, activating emergency plans, and coordinating resources.

Recovery:

Efforts to restore affected areas to normal or improved conditions. This includes long-term rebuilding, economic recovery, and community restoration after the initial response phase.

While these four phases are widely accepted, some variations may include an additional phase known as "Detection" or "Recognition," particularly in contexts involving technological or human-caused disasters. Detection involves identifying the onset of an emergency and initiating a response.

Mitigation:

Activities that aim to prevent or reduce the severity of disasters. This includes measures like building codes, land-use planning, and public education to decrease the impact of hazards.

Preparedness:

Actions taken in advance to ensure effective response and recovery. This involves planning, training, drills, and establishing communication systems to enhance the ability to respond to emergencies.

Global disaster management

The world's environmental and ecological problems are well known to the worldwide community, so several projects aiming at addressing global warming and climate change have been started (Thakur, 2014). It is widely acknowledged that disasters caused by nature are a worldwide problem that cuts across country borders and socioeconomic divides. A strong worldwide community, exemplified by a number of United Nations agencies, has been cultivated by this recognition. The years 1990–2000 were notable because they were declared the International Decade for Natural Disaster Reduction (IDNDR) by the UN. IDNDR's main goal was to reduce the number of fatalities, property damage, and socioeconomic disruptions brought on by natural disasters by means of concerted international activities and programs (Murthy, 2012).

The IDNDR listed a number of important goals that needed to be accomplished by the year 2000. First and foremost, all countries were urged to carry out thorough national assessments of the risks related to natural calamities. These evaluations were to be included into national and local disaster risk reduction plans and development initiatives, with a focus on community education, preparedness, and long-term prevention. Second, to make certain that warnings are disseminated extensively in order to minimize potential consequences, the framework aimed for enhanced access to early warning systems at local, national, regional, and international levels. The IDNDR had a turning point with the Yokohama, Japan,

summit of May 1994. The outcome of this occurrence was the formulation of the Yokohama Strategy, an action plan that set out recommendations on minimizing, averting, and preparing for natural disasters. To enhance resilience towards future disasters, the Yokohama Strategy emphasized the importance of integrating risk evaluation and community participation in disaster management strategies (ibid.).

To help mitigate and deal with the impact of disasters across the world, there need to be organizations that are involved in global disaster management systems. Some of these organizations are the World Health Organization (WHO), which is concerned with disaster management related to health, and the United Nations Office for Disaster Risk Reduction (UNDRR), which plays a vital role in implementing the Sendai Framework for Disaster Risk Reduction.

The United Nations Development Programme (UNDP) promotes disaster resilience capacity building, while the International Federation of Red Cross and Red Crescent Societies (IFRC) offers emergency response and humanitarian help. International agreements such as the Hyogo and Sendai Frameworks, which support preparedness, risk reduction tactics, and sustainable recovery, are another example of collaborative efforts (Saxena, 2023).

Here are some major international organizations actively working to help with global disasters:

The International Emergency Management Society (TIEMS) , is an international nonprofit NGO, registered in Belgium. TIEMS is a global forum for Education, Training, Certification and Policy in emergency and disaster management. TIEMS goal is to develop and bring modern emergency management tools, and techniques into practice, through the exchange of information, methodology innovations and new technologies. TIEMS provides a platform for stakeholders to meet, network and learn about new technical and operational methodologies. TIEMS focuses on cultural differences to be understood and included in the society's events education and research programs. This is achieved by establishing local chapters worldwide. Today, TIEMS has chapters in Benelux,

Romania, Finland, Italy, Middle East and North Africa Iraq, India, Korea, Japan and China(ibid, p.231)

The International Association of Emergency Managers (IAEM) is a non profit educational organization aimed at promoting the goals of saving lives and property protection during emergencies. The mission of IAEM is to serve its members by providing information, networking and the professional opportunities, and to advance the Emergency Management profession. It has seven councils around in the world Asia, Canada, Europe international Oceania student and USA. The Air Force Emergency Management association affiliated by membership with the iem provides Emergency Management information and networking for US Air Force Emergency Management personnel(Saxena,2023).

The International Recovery Platform (IRP) was conceived at the World Conference on Disaster Reduction in Kobe, Hyogo, Japan in January 2005 as part of the *Hyogo framework for action* (HFA) 2005 to 2015. The HFA is a global plan for Disaster Risk Reduction adopted by 168 governments. The key role of IRP is to identify gaps in post disaster recovery and to serve as a catalyst for the development of tools and resources for recovery efforts(Sing, 2017).

Red Cross or Red Crescent, The International Federation of Red Cross and Red Crescent societies IFRC works closely with national Red Cross and Red Crescent societies in responding to emergencies many times playing a pivotal role. In addition, the IFRC may deploy assessment teams, example field assessment and coordination teams to the affected country if requested by the national society. After assessing the needs emergency response units (ERUs) may be deployed to the affected country or region. They are specialized in the response component of the Emergency Management framework(Gandhi,2019)

The United Nations system rests with the Resident Coordinator within the affected country. However, in practice the UN response will be coordinated by the UN office for the coordination of Humanitarian Affairs (UN-OCHA), by deploying a UN disaster assessment and coordination UNDAC team in response to a request by the affected countries government(ibid).

World Bank, since 1980 the World Bank has approved more than 500 projects related to disaster management, dealing with both disaster mitigation well as reconstruction projects, amounting to more than US\$ 40 billion. These projects have taken place all over the world in countries such as Argentina, Bangladesh, Colombia, Haiti, India, Mexico, Turkey and Vietnam. Prevention and mitigation projects include forest fire prevention measures such as early warning measures and education campaigns; early warning system for hurricanes; flood prevention mechanism (Eg, shore protection terracing etc.) and earthquake prone construction. In a joint venture with Columbia University under the umbrella of the ProVention Consortium the World Bank has established a Global Risk Analysis of Natural Disaster Hotspots. In June 2006, the World Bank, in response to the HFA, established the Global Facility for Disaster Reduction and Recovery (GFDRR) a partnership with other aid donors to reduce disaster losses. GFDRR helps developing countries fund development projects and programs that local capacities for disaster prevention and emergency preparedness(Saxena, 2023).

European Union, in 2001 the EU adopted Community Mechanism for Civil Protection, to facilitate cooperation in the event of major emergencies requiring urgent response actions. This also applies to situations where there may be an imminent threat as well. The heart of the mechanism is the Monitoring and Information Centre (MIC), part of the European Commission's Directorate General for Humanitarian Aid and Civil protection. Accessible 24 hours a day, it gives countries access to a one-stop-shop of civil protections is available amongst all the participating states. Any country inside or outside the Union affected by a major disaster can make an appeal for assistance through the MIC. It acts as a communication hub, and provides useful and updated information on the actual status of an ongoing emergency(Gandhi, 2017).

Institutional Disaster Frameworks Management in Countries

Emergency management is a critical responsibility for nations worldwide. Its objectives are to lower risks, prepare for potential calamities, and react swiftly and efficiently in the event of an emergency. Depending on its geography, governmental

structure, and prior catastrophe experiences, every nation has a unique emergency management strategy. Let's get familiar with the disaster management structure of some countries:-

Canada

Public Safety Canada is Canada's national Emergency Management agency. Each province is required to have both legislation for dealing with emergencies and provincial Emergency Management agencies typically called "Emergency Measures Organization" (EMO). Public safety Canada coordinates and support the efforts of federal organizations as well as the other levels of government, first responders, community groups, the private sector, and other nations. The Public Safety and Emergency Preparedness act defines the powers duties and functions of PS are outlined. Other acts are specific to individual fields such as corrections, law enforcement and national security (Murthy, 2012).

Germany

In Germany the federal government controls the German *Katastrophenschutz* (disaster relief), the Technisches Hilfswerk (Federal Agency for Technical Relief, THW) and the Zivilschutz(civil protection) programs. Local fire department units the German Armed Force (Bundeswehre), the German Federal Police and the 16 state police forces (Landerpolizei) are also deployed during disaster relief operations. There are several private organization in Germany which also deal with emergency relief. Among these are the German Red Cross, Johanniter-Unfall-Hilfe (the German equivalent of the Saint John ambulance), the Malteser Hilfsdienst, and the Arbeiter-Samariter-Bund. As of 2006, there is a program of study at the University of Bonn leading to the degree "Master in Disaster Prevention and Risk Governance"(Gandhi,2019).

Australia

Natural disasters are part of life in Australia heat waves have killed more Australians than any other type of natural disaster in the 20th century australia's Emergency Management processes embrace the concept of the prepared community

the principal government agency in achieving this is Emergency Management Australia (Ibid).

New Zealand

In New Zealand depending on the scope of the emergency for disaster responsibility may be handled at either the local or national level within each region local governments are organized into 16 civil defence Emergency Management group if local arrangements are overwhelmed pre-existing mutual support arrangements are activated central government has the authority to coordinate the response through the national crisis management center NCMC operated by the ministry of civil defence and Emergency Management MCDEM these structures are defined by regulation and explained in the guide to the National Defence Emergency Management plan 2006 roughly equivalent to the US Federal Emergency Management agency national response framework New Zealand uses unique terminology for Emergency Management Emergency Management is rarely used many government publications retaining the use of term civil defects for example the minister of civil defence is responsible for the MCDM civil defence Emergency Management is a term in its own right defined by the statute and disaster rarely appears in official publications emergency and incident being the preferred term with the term event also being used for example publication example publications refer to the Canberra snow event 2002 4R is used the Emergency Management cycle used in New Zealand its four phases are known as reduction/ mitigation, readiness/ preparedness, response and recovery (Ibid).

Pakistan disaster management in Pakistan revolves around flood disasters focusing on rescue and relief there is a dearth of knowledge and information about the hazard identification risk assessment and management and disaster preparedness disaster management development planning and environmental management institutions operate in isolation with no integrated planning there being no central authority for integrated disaster management state level measures are heavily tilted towards structural aspects the disaster risk management society is established in GC university Lahore under the supervision of the department of geography (Ibid).

Pakistan

Disaster management in Pakistan revolves around flood disasters focusing on rescue and relief. There is a dearth of knowledge and information about hazard identification, risk assessment and management, and disaster preparedness. Disaster management, development planning and environmental management institutions operate in isolation with no integrated planning, there being no central authority for integrated disaster management. State level measures are heavily tilted towards structural aspects. The Disaster Risk Management Society is established in GC university, Lahore, under the supervision of the Department of Geography.

Somalia

In Somalia, the Federal Government announced in May 2013 that the Cabinet had approved draft legislation on a New Somali Disaster Management Agency (SDMA), which had originally been proposed by the Ministry of Interior. According to the Prime Ministers Media Office, the SDMA will lead and coordinate the government's response to various natural disasters. It is part of a broader effort by the federal authorities to re-establish national institutions. The Federal parliament is now expected to deliberate on the proposed bill for endorsement after any amendments (Singh, 2017).

Russia

In Russia the ministry of Emergency Situations (EMERCOM) is engaged in firefighting civil defense and search and rescue after both natural and the human made disasters (Ibid).

The Netherlands

In the Netherlands the ministry of the interior and the Kingdom relations is responsible for emergency preparedness and Emergency Management on a national level and operates a national crisis standard NCC the country is divided into 25 regions VEILIGHEIDSREGIO in a safety region there are 4 components the regional fire department the regional department for medical care ambulances and

psychological care etcetera the regional dispatch and the section of for risk and crisis management the regional dispatch operates for police fire department and the Regional Medical care the dispatch has all these three services combined into one dispatch for the best multi coordinated response to an incident or an emergency and also facilitates in information management emergency communication and care of citizens these services are the main structure for a response to a emergency it can happen that for a specific emergency the cooperation with the other services is needed for instance the Ministry of Defence water boards or RIJKSWATERST AAT the VEILIGHE the VEILIGHEIDSREGIO can integrated these other services into their structure by adding them to specific conferences and operational or administrative level all regions operate according to the coordinated regional incident management system (Ibid).

United Kingdom

Following 2000 as well as the foot and mouth prices in 2001 the United Kingdom passed the civil contingencies act 2004 CCA the CCA define the same organization as category one and two responders setting responsibilities regarding emergency preparedness and response it is managed by the civil contingencies secretariat through regional resilience send local authorities disaster management training is generally conducted at the local level and consolidated through professional courses that can be made taken at the emergency planning college diplomas undergraduate and postgraduate qualifications can be gained at universities throughout the country the institute of Emergency Management is a charity established in 1996 providing consulting services for the government media and commercial sectors there are a number of professional societies for emergency planners including the emergency planning society and the institute of civil protection and Emergency Management one of the largest emergency exercise in the UK was carried out on 20 May 2007 near Belfast Northern Ireland a simulated plane crash landing at Belfast International airport staff from 5 hospitals and three airports participated start from 5 hospitals and three airports participated in the trail and almost 150 international observers assessed it effectiveness (Ibid).

United States

Disaster management in the United States has utilized the functional or hazardous approach for over 20 years in which managers develop processes such as communication and warning or sheltering rather than developing single hazard or threat focused plans. Tornado plan process processes are then mapped to specific hazard or threats with the manager looking for gaps overlaps and conflicts between processes. This creates a plan more resilient to unique events because all processes are defined and encourages planning done by the stakeholders who are closer to the individual processes. Such as traffic management plan written by public works director. This type of planning can lead to conflict with non-emergency management regulatory bodies which require development of hazard threat specific plans such as development of specific H1N1 flu plans and terrorism specific plans in the United States. All disasters are initially local with local authorities with usually a police fire or EMS agencies taking charge. Many local municipalities may also have a separate dedicated Office of Emergency Management (OEM) along with the personnel and equipment. If the event becomes overwhelming to local government state Emergency Management the primary government structure of the United States becomes the controlling Emergency Management Agency Federal Emergency Management Agency (FEMA) part of the Department of Homeland Security DHS is lead federal agency for Emergency Management the United States and its territories are broken down into 10 regions for FEMA Emergency Management purposes FEMA supports but does not override state authority (Ibid).

The Citizen Corps is an organization of volunteer service program administrator locally and coordinated nationally by DHS with FEMA to mitigate disasters and prepare the population for emergency response through public education training and outreach. Most disaster response is carried out by volunteer organizations in the US and the Red Cross is chartered by Congress to coordinate disaster response services including typically being the lead agency handling shelter and feeding of evacuees. Religious organization with their ability to provide volunteers quickly are usually integral during the response processes the largest being the Salvation Army with a primary focus on CHAPLAINCY and rebuilding and

Southern Baptist school focuses on food preparation and distribution similar services are also provided by Methodist relief services the Lutheran's and Samaritan Samaritans purse and affiliated show up at most large disasters to prevent abuse by criminals and more the safety of the volunteers procedures have been implemented within most response agencies to manage and effectively use the SUVs spontaneous unaffiliated The US Congress established the centre for excellence in disaster management and humanitarian assistance Coe as the principal agency to promote disaster preparedness in Asia Pacific region the national tribal tribal Emergency Management council neme is a non profit educational organization developed for tribal organization to share information and best practices as well as discussing issues regarding public health and safety Emergency Management and Homeland Security affecting those in under Indian sovereignty NTMC is organized into regions based on the sema 10 region system NTMC Bose founded by the northwest tribal Emergency Management council NWTEMCA constraint of 29 tribal nations and villages in Washington Idaho Oregon and Alaska if a disaster or emergency is declared to be terror related or an incident of national significance the secretary of Homeland Security will initiate the national response framework NRF the NRF allows the integration of federal resources with local county state or tribal entities with management of those resources to be handled at the lowest possible level utilizing the national incident management system (Ibid).

India

The national disaster management authority is the primary government agency responsible for planning and the capacity building for disaster relief it is emphasis is primarily on strategic risk management and mitigation as well as developing policies and planning the National Institute of disaster management is a policy think tank and training institution for developing guidelines and training programs for mitigating disasters and managing crisis response the national disaster response force is the government agency primarily responsible for Emergency Management during natural and landmark disasters with specialized skills in search rescue and rehabilitation the ministry of science and technology also contains an agency that brings the expertise of earth scientist and metrologist to emergency

management the Indian armed forces also place an important role in the rescue or recovery operations (Kapoor, 2012). The structure of the existing system in India is given below.

Table 3.3
Institutional Framework of Disaster management

Institution level		Authority	Chairman	Institutions
Central government		National Disaster Management Authority	Prime Minister	National Executive Committee (NEC)
		Ministry of Home Affairs (MHA)	Home Minister	National Disaster Response Force (NDRF)
State government		State Disaster Management Authority (SDMA)	Chief Minister	State Executive Committee (SEC) State Disaster Response Fund (sec.48.Dis mgt Act2005)
		Department of Disaster Management	Minister in Charge	State Disaster Response Force (SDRF)
District panchayath		District Disaster Management Authority	District Magistrate/ Chairman ZilaParishad	State Executive Committee (SEC)
a)	Panchayath			
b)	municipalities			

Disaster Management Act, 2005

The Disaster Management Act, 2005, governs disaster management in India, extending nationwide. It came into effect on dates notified by the Central

Government, with flexible commencement provisions for specific States and sections. Key definitions include: "disaster" (catastrophic events causing significant harm), "disaster management" (an integrated process for prevention, mitigation, preparedness, response, and recovery), and "capacity-building" (identifying and enhancing resources for effective management). The Act establishes authorities such as the National, State, and District Disaster Management Authorities and outlines plans at national, state, and district levels. It emphasizes mitigation, preparedness, evacuation, and rehabilitation to manage disasters effectively (ministry of home affairs)

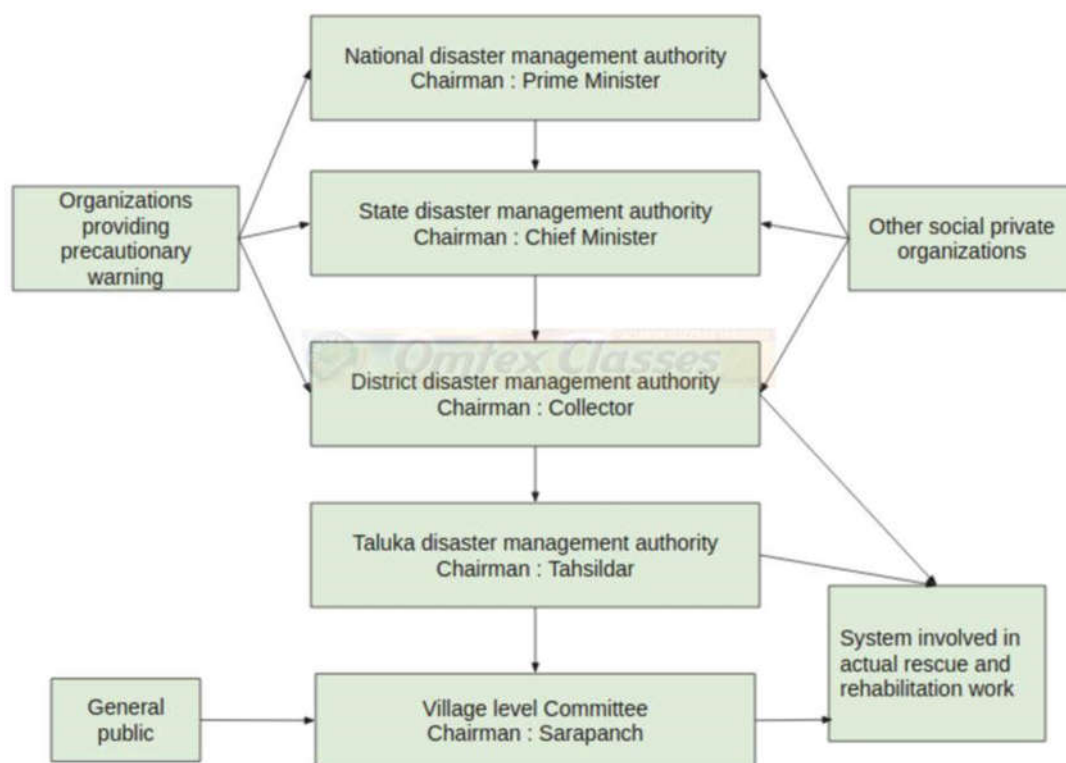


Fig.3.2. Organisational Structure of Disaster Management in India

National Disaster Management Authority (NDMA)

The Disaster Management Act, 2005, establishes the NDMA to formulate policies and guidelines for disaster management in India. Chaired by the Prime Minister, it includes up to nine members, with one serving as Vice-Chairperson. The

NDMA formulates the National Plan, oversees its implementation, coordinates disaster response, and integrates mitigation measures into development projects. It may also assist other countries in major disasters and establish advisory committees of experts.

The National Executive Committee (NEC), led by senior secretaries of key ministries, assists NDMA in operationalizing policies, monitoring preparedness, and facilitating training. Sub-committees and technical experts aid specialized tasks. The NEC ensures compliance with plans, evaluates readiness, coordinates disaster responses, and integrates mitigation into national and state-level projects. The Act requires annual revision of the National Plan, providing financing for disaster steps, and relief standards guidelines that include basic items such as shelter, food, and medicine. In extreme disasters, it can suggest loan relief or concessional financing for victims.

NDRF: The National Disaster Response Force (NDRF) came into being in 2006 as a specialized force for disaster management in India. Its establishment was a direct reaction to growing international discussion about disaster preparedness, especially after such efforts as the Yokohama Strategy Plan (1994) and the Hyogo Framework for Action (2005), which were both endorsed by the United Nations (UN, 1994; UN, 2005). India also saw unprecedented natural catastrophes in this phase, such as the Orissa Super Cyclone (1999), the Gujarat Earthquake (2001), and the Indian Ocean Tsunami (2004), calling for the urgent establishment of a systematic disaster response system (NDMA, 2005).

Recognizing this necessity, the Disaster Management Act was enacted on December 26, 2005, leading to the creation of the National Disaster Management Authority (NDMA) and the NDRF (Government of India, 2005). Initially, the force comprised 8 Battalions, but it has since expanded to 16 Battalions, with each battalion consisting of 1,149 personnel (NDRF, 2023). Initially, the NDRF was deployed for law and order duties, but a policy shift in October 2007 placed it under the unified command of the Director General (DG), NDRF, solidified by the NDRF Rules notification on February 14, 2008 (NDMA, 2008).

Currently, the 16 Battalions of the NDRF are drawn from various Central Armed Police Forces (CAPF), including the Border Security Force (BSF), Central Industrial Security Force (CISF), Central Reserve Police Force (CRPF), Indo-Tibetan Border Police (ITBP), Sashastra Seema Bal (SSB), and Assam Rifles (NDRF, 2023). Each battalion comprises 18 specialized search and rescue teams, with 47 personnel per team, trained in handling earthquakes, floods, landslides, industrial accidents, and radiological emergencies (NDMA, 2023). These teams include structural engineers, technicians, electricians, canine units, and medical/paramedic personnel, ensuring a comprehensive disaster response system (NDRF, 2023).

Functions and Responsibilities of NDMA

The NDMA has been tasked with various responsibilities, including:

- Approving the National Disaster Plan (NDMA, 2023a).
- Laying down policies and guidelines for disaster management at the national and state levels (Government of India, 2005).
- Approving plans prepared by different Ministries and Departments in line with the National Plan (NDMA, 2023b).
- Coordinating the enforcement of disaster management policies and recommending provisions for mitigation funds (NDMA, 2023b).
- Providing disaster relief assistance to foreign countries as directed by the Central Government (NDMA, 2023a).
- Overseeing the National Institute of Disaster Management (NIDM) to ensure proper training and research (NDMA, 2023b).

Key Disaster Response Operations

The NDRF follows a proactive approach, emphasizing “pre-positioning” resources in disaster-prone areas to ensure rapid deployment (NDMA, 2014). The force has been instrumental in numerous large-scale rescue and relief operations:

Environmental Hazards and Disaster Management

1. Kosi Floods (2008)
 - One of the earliest large-scale rescue operations.
 - Over 1,00,000 individuals were rescued (NDMA, 2008).
2. Jammu & Kashmir Floods (2014)
 - The first major urban flooding challenge faced by NDRF.
 - Despite power failures and communication breakdowns, thousands were rescued (NDRF, 2014).
3. Cyclone Hud-Hud (2014)
 - NDRF provided critical evacuation and relief efforts (NDMA, 2014).
4. Nepal Earthquake (2015)
 - One of NDRF's largest international disaster responses.
 - Teams rescued survivors and provided emergency medical assistance (NDRF, 2015).
5. CBRN Disaster Response
 - Demonstrated expertise during the Mayapuri, Delhi, radiological incident (2010), handling Cobalt-60 material safely (NDMA, 2010).

Recent Operations (2023)

1. Turkey-Syria Earthquake Response (February 2023)
 - Deployed 3 teams following the 7.8 magnitude earthquake.
 - Rescued 2 survivors and recovered 85 bodies, along with medical aid efforts (NDRF, 2023).
2. Balasore Train Accident (June 2023)
 - After a train collision in Odisha, NDRF deployed 9 teams.

Environmental Hazards and Disaster Management

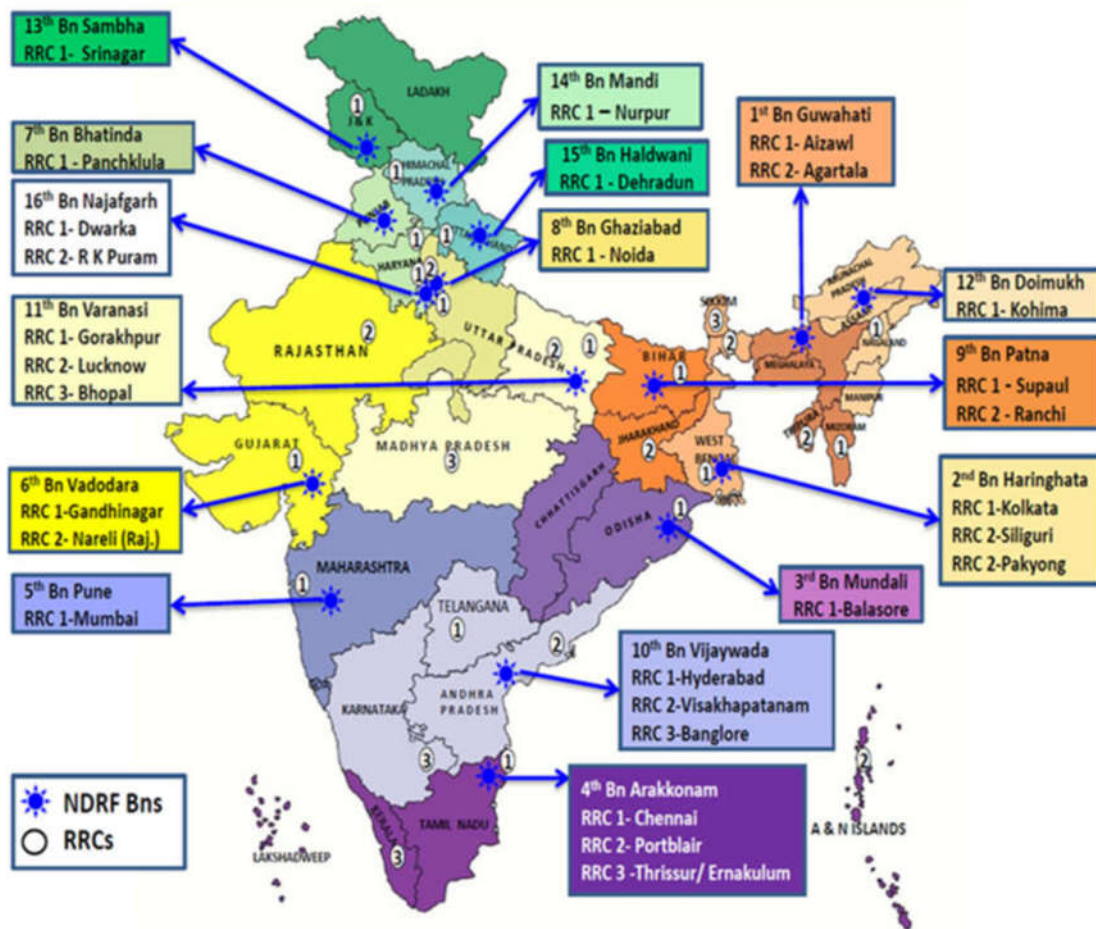
- Rescued 44 survivors and retrieved 121 deceased (NDMA, 2023).
3. Silkyara Tunnel Collapse, Uttarakhand (November 2023)
 - A 19-day rescue operation successfully saved 41 trapped workers (NDRF, 2023).

Challenges and Shortcomings

1. Failure in Early Warning Systems – NDMA was criticized for inadequate early warnings during the Uttarakhand Floods (2013) (Comptroller and Auditor General of India [CAG], 2015).
2. Poor Flood Management – A CAG report found delays and mismanagement in flood mitigation projects (CAG, 2015).
3. Chennai and Kerala Floods – Chennai Floods (2015) and Kerala Floods (2018) exposed weaknesses in urban flood management (CAG, 2018).
4. Lack of Training & Equipment – NDRF personnel often face shortages in training, equipment, and residential accommodations (NDRF, 2023b).
5. Financial Mismanagement – National Disaster Response Fund (NDRF) and State Disaster Response Fund (SDRF) have been misused by some states (CAG, 2018).

The NDRF has evolved into one of India's most trusted disaster response forces, ensuring swift action and humanitarian assistance in times of crisis (NDMA, 2023). With its proactive deployment strategies, specialized training, and internationally recognized expertise, NDRF remains at the forefront of India's disaster management framework. Under the leadership of the Director General, NDRF, the force continues to embody resilience and preparedness, serving as a beacon of hope for communities across India and beyond (NDRF, 2023).

Map showing NDRF Bns locations and their respective area of responsibility



(Source:-<https://ndrf.gov.in/en/about-us>)

Fig. 3.3. NDRF Bns locations and their respective area of responsibility

The State Disaster Management Authorities (SDMAs) play a pivotal role in implementing localized disaster management strategies. Each state establishes an SDMA led by the Chief Minister as Chairperson, supported by up to eight nominated members and the Chairperson of the State Executive Committee (SEC). The SDMAs are tasked with formulating policies, approving state-level disaster management plans, and integrating mitigation measures into developmental projects. Annual reviews and revisions keep the plans effective in countering changing risks. For the implementation of these policies, the SEC, led by the State Chief Secretary, coordinates disaster response, assesses preparedness, and tracks compliance with state and national disaster plans. SDMAs also focus on public awareness, capacity

building, and collaboration with NGOs to ensure distributive equity in relief. Significantly, the SDMA and SEC have the authority to limit mobility, manage resources, and conduct relief activities in times of emergencies. The system emphasizes decentralization, forward planning, and people's participation in disaster management.

Kerala State Disaster Management Authority (KSDMA) Disaster management organizations are:-

- State Disaster Response Force (SDRF)
- Civil Defence
- Samoohika Sannadha Sena

State Disaster Response Force (SDRF)

The State Disaster Response Force (SDRF) was established as a specialized disaster management unit to supplement the National Disaster Response Force (NDRF) at the state level. It was formed following the Government Orders (Ms) No. 262/2012/Home dated 17-10-2012 and GO (Rt) No. 2421/2013/Home dated 31-08-2013 (State Disaster Response Force [SDRF], 2012, 2013). The SDRF functions under the State Disaster Management Authority (SDMA) and is responsible for handling natural and man-made disasters within the respective state.

Structure and Organization

The SDRF in Kerala is headquartered at Pandikkad, Malappuram district, with a total strength of 100 personnel (SDRF, 2013). It operates under the Additional Chief Secretary, Home, who is a member of the Kerala State Disaster Management Authority (KSDMA). The force is commanded by a Superintendent of Police (SP) and has units deployed across Thiruvananthapuram, Ernakulam, Thrissur, and Kannur police ranges (SDRF, 2013).

Training and Deployment

The SDRF personnel undergo specialized disaster response training conducted by the National Disaster Response Force (NDRF) to handle earthquakes, floods, cyclones, industrial accidents, and other emergencies (SDRF, 2013). The force is responsible for:

- Search and rescue operations in disaster-affected areas.
- Providing first aid and emergency response during crises.
- Evacuation and relief coordination in collaboration with local authorities.
- Assisting in disaster preparedness and mitigation efforts at the community level.

Significance of SDRF

The SDRF serves a significant function in building India's disaster management system by facilitating rapid response at the state level. While large-scale disasters are taken care of by the NDRF, the SDRF offers localized and instant response to minimize reliance on national forces. The State Disaster Response Force is a part of India's multi-tier disaster management system to provide swifter and more effective emergency response. Its specialized preparation, strategic deployment, and coordination with the NDRF and SDMA make it an integral part of disaster preparedness and risk reduction (SDRF, 2013).

Samoohika Sannadha Sena: Kerala's Community Volunteer Corps

The Samoohika Sannadha Sena (SSS), or the Community Volunteer Corps, is a game-changer initiative set up by the Kerala State Disaster Management Authority (KSDMA) to tap the potential of volunteers for emergency response and disaster management. Realizing the significance of community response, especially following the 2018 Kerala floods, the Hon'ble Chief Minister mandated the creation of a joint platform for voluntary organizations and civilians to collaborate with government departments during crisis moments (Government of Kerala, 2020).

Establishment and Structure

The Samoohika Sannadha Sena came into being formally under Government Order (Ms) No. 1/2020/GAD on January 1, 2020, with the establishment of a separate Directorate to oversee and organize its operations (Government of Kerala, 2020). The project was envisioned to construct a force of ready-to-deploy community volunteers who could respond efficiently in times of crisis, including floods, cyclones, and health crises like the Nipah outbreak and COVID-19 pandemic. For ease of registration of volunteers, the KSDMA initiated the site www.sannadhasena.kerala.gov.in on February 25, 2020, which was subsequently handed over to the Directorate of Samoohika Sannadha Sena on March 31, 2020 (KSDMA, 2020). The site is used as a medium through which civilians and organizations can be registered as part of the volunteer network and engage in diverse disaster management and community-based activities (Samoohika Sannadha Sena, 2020).

Role and Functioning

The Samoohika Sannadha Sena employs volunteers from all walks of society and trains them in both general and specialized training as per a standardized syllabus. This helps volunteers to support various departments of the government, including the District Administration, Local Self-Government Institutions (LSGIs), State Forces, and the Forest Department, during emergencies (KSDMA, 2020). The initiative seeks to include civil society in state governance by acknowledging volunteerism as the most important asset of society.

The Directorate of Samoohika Sannadha Sena oversees the operations of 350,000 volunteers distributed throughout the state, engaged in activities such as rescue work, relief delivery, and medical aid during emergencies (KSDMA, 2020). Nodal officers are designated at the district level to oversee and coordinate the operations of Sannadhasena at each district to facilitate effective coordination among volunteers and government departments (Government of Kerala, 2020).

Contribution

The Samoohika Sannadha Sena has turned out to be a precious resource for the management of disaster, especially for dealing with floods, cyclones, and pandemics. The program has imbued Kerala with improved social cohesion and has shown the potential of people-based volunteering for strengthening emergency readiness. With a wide network of trained volunteers, the Sannadhasena has been able to assist in rescue work, relief operations, and public awareness programs during recent disasters.

The Samoohika Sannadha Sena is a pioneering and novel endeavor, placing Kerala in a position of being the first state in India to implement so large-scale a program involving community volunteers. It represents the ethos of social solidarity and collective responsibility during times of calamity. In establishing an efficient and trained volunteer force, Kerala has made it possible for the community to take its rightful place at the center of disaster management, crisis response, and social infrastructure building (KSDMA, 2020).

Civil Defence in Kerala

Civil Defence in Kerala is governed by the Civil Defence Act, 1968, a statutory enactment to establish and function volunteer-based civil defence units. The Director General of Fire & Rescue Services serves as the Director General of Civil Defence in Kerala, having been in the post since 2009. Kerala has made considerable progress towards the establishment of a strong Civil Defence system for supporting disaster management as well as for community resilience.

Formation and Activation of Civil Defence in Kerala

In accordance with the State Disaster Management Plan (2016), the Kerala State

Disaster Management Authority (KSDMA) acknowledged the significance of community-based disaster risk reduction and intended to establish, train, and develop the capacity of the Civil Defence Force throughout the districts. This was recognized as a 5-year plan to be executed from 2017 to 2022 (KSDMA, 2016).

To streamline the activation of Civil Defence, the Director General of Fire & Rescue Services and Member Secretary of KSDMA visited the National Civil Defence College (NCDC) in Nagpur in November 2017, where they developed a detailed implementation plan. This plan was incorporated into the 13th Five-Year Plan of the state, emphasizing the need for a Civil Defence Force as a part of disaster management (KSDMA, 2016).

The State Executive Committee (SEC), in a meeting held on October 20, 2016, entrusted the Home Secretary with the responsibility of preparing a comprehensive plan for activating the Civil Defence Force, including the role of First Responders in Kerala's specific disaster management context (KSDMA, 2016). As part of this plan, Rs. 17 lakhs was allocated to the District Collector of Thrissur for the management of the Civil Defence Institute in 2017 (Government of Kerala, 2017).

Official Creation and Administration of Civil Defence

The official creation of Civil Defence in Kerala took place on August 30, 2019, under Government Order (Ms) No. 132/2019/Home (Government of Kerala, 2019). The Director General of Kerala Fire & Rescue Services oversees both the Home Guards and Civil Defence operations. A Regional Fire Officer in Thiruvananthapuram and District Fire Officers coordinate the Civil Defence activities at the district level, with District Collectors acting as administrative heads (Government of Kerala, 2019).

The training of civil defence volunteers is conducted at the Civil Defence Academy in Viyyur, and each of the 124 fire stations in Kerala is tasked with training 50 volunteers to be deployed at local, district, and state levels (Government of Kerala, 2020). The state aims to train and deploy 6200 trained civil defence personnel under these fire stations, ready to respond to emergencies across Kerala (KSDMA, 2020).

Role and Responsibilities

Civil Defence personnel are primarily tasked with supporting disaster management efforts alongside traditional fire-fighting operations. With the inclusion of disaster management as an additional responsibility through the Civil Defence (Amendment) Act, 2009, volunteers are trained to handle both natural and man-made disasters (Government of Kerala, 2009). The key objectives of the Civil Defence Force include:

1. Participating in disaster management and fire-fighting operations.
2. Minimizing property damage and loss of life during crises.
3. Boosting the morale of affected communities through volunteer action.

Additionally, the force's capacity to deal with various calamities such as earthquakes, floods, and industrial accidents is constantly improved through specialized training (KSDMA, 2020).

The Civil Defence Force in Kerala plays a critical role in strengthening the state's disaster management capabilities. By integrating trained volunteers into disaster response, the force ensures that Kerala is better prepared for any crisis. With specialized training and a coordinated approach between various departments, the Civil Defence Force continues to enhance the state's resilience and response during emergencies.

District Disaster Management Framework

Each district has to formulate an all-inclusive District Disaster Management Plan consistent with the National and State Plans. Formulated by the District Authority in collaboration with local authorities, the plan specifies disaster-prone areas and prescribes detailed measures for prevention, mitigation, and capacity building. It also formulates response mechanisms to determine unambiguous allocation of responsibilities, procurement of resources, communication networks, and dissemination of public information during emergencies. The District Plan is a dynamic document, which is reviewed annually and updated to accommodate

evolving vulnerabilities and best practices in disaster management. Up-to-date copies of the plan shall be communicated to all district government departments and passed on to the State Authority. The District Authorities shall oversee the implementation of these plans and direct instructions for ensuring smooth execution.

District authorities and government offices are required to develop their own disaster management plans consistent with the District Plan. They have to incorporate preventive and mitigation measures, capacity-building, and response mechanisms. Periodic reviews and revisions are necessary, and copies have to be forwarded to the District Authority to maintain uniformity and coordination.

The District Authority has vast powers to deal with disaster situations in an effective manner. These powers include regulating vehicular and human movement in affected or vulnerable areas, organizing the utilization of resources, carrying out rescue activities, and delivering basic services such as food, shelter, and medical care. Authorities can also create emergency communication systems, manage disposal of unidentified bodies, and create or destroy buildings to counteract risks.

To facilitate easy implementation, the District Authority can requisition the use of resources or direct action by government departments, officers, or local authorities. They can also hire experts and consultants for professional advice and see to it that non-governmental organizations function fairly and without bias. Such a structured and decentralized system allows districts to adapt disaster management strategies in accordance with their specific needs while still conforming to general national and state policies.

Conclusion

Environmental risk and disaster management involves the identification, mitigation, and response to significant and lesser natural hazards such as earthquakes, floods, hurricanes, landslides, and droughts. They may lead to devastating effects, including loss of life, economic interruption, and environmental damage. Localized flooding and landslides are also hazards that may strongly affect communities unless they are properly dealt with.

Environmental Hazards and Disaster Management

Disaster management is a holistic strategy to reduce the negative impacts of such occurrences, with an emphasis on preparedness, mitigation, response, and rehabilitation. Anticipatory steps like risk assessment, early warning systems, sustainable city planning, and educating communities play a crucial role in eliminating vulnerabilities. Rehabilitation and recovery are aimed at reinstalling normalcy while building resilience against future threats.

The definition of disaster management has extended to encompass international cooperation due to an awareness of the transboundary aspects of a large number of hazards and their far-reaching consequences. International disaster management agendas, including the Sendai Framework for Disaster Risk Reduction, emphasize collective efforts towards risk reduction. Global entities such as the United Nations Office for Disaster Risk Reduction (UNDRR), the International Red Cross and Red Crescent Societies (IFRC), and the World Meteorological Organization (WMO) have key roles in coordination, finance, and knowledge sharing to combat disasters globally.

Therefore, it is imperative to address environmental risks on an international level by uniting science, policy, and community action. Through the empowerment of local capacities and promoting cooperation among nations, it is possible to reduce risks, increase resilience, and create a safe future for everyone.

CHAPTER 4
WAYANAD DISTRICT: A PROFILE



(Source :- www.bing.com)

Fig. 4.1 District map

Wayanad, nestled in the Western Ghats of Kerala, is renowned for its lush green landscapes, striking geographical features, and cultural richness. Spanning an area of 2,132 square kilometres, the district is located on the southern edge of the Deccan Plateau in north eastern Kerala. It was established as Kerala's 12th district on November 1, 1980, through the reorganization of parts of Kannur and Kozhikode districts. The administrative headquarters of Wayanad is Kalpetta, with Mananthavady and Sultan Bathery serving as other key towns. Despite this,

Wayanad remains predominantly rural, with the 2011 Census recording a population of 817,420, of which 96.14% reside in rural areas (censusindia, 2011). Wayanad's diverse topography includes high-altitude peaks, rolling hills, valleys, and grasslands, with elevations ranging from 700 to 2,100 meters above sea level (MSME - Development Institute, Thrissur, 2016). The most panoramic view of the region could be availed at the Chembra Peak, which is the highest spot in the district. Unique topography and the availability of plenty of water resources which include rivers, lakes and rivulets makes Wayanad a particularly hydrologically sensitive region. On this watercourse the Kabani River, one of the three rivers of Kerala to flow eastwards and a mainstream of the Cauvery, originates here. Principal among its tributaries is the Panamaram, Mananthavady, and Thirunelli rivers, which join to form a network that is officially considered as a hydrological hotspot (Rajeev, 2016). Agriculture is one of the prime activities of Wayanad. The soil of the district is highly fertile and production of tea, coffee, pepper, and cardamom plantations can be attributed to significant agricultural sector in Kerala. The Wayanad Wildlife Sanctuary located in green hills of Western Ghats forms an important ecological reserve in India. The sanctuary was originally founded in 1973 and is roughly 344 km² in size, and the sanctuary is located on the Nilgiri Biosphere Reserve, which in turn has been declared to be a UNESCO World Heritage site. The sanctuary has two major key divisions of Tholpetty in the north, and Muthanga in the south, each has an emphasis on the exponential biodiversity in the area (Kerala Tourism, n.d.). The Wayanad has a vibrant kaleidoscope of cultures and society and the indigenous tribes of the Paniyas, Kurumas, Adiyars, Kurichyas, Ooralis, Kadars and Kattunaikkans.

These communities collectively account for 36% of Kerala's total tribal population and 18.5% of Wayanad's population, the highest proportion of Adivasis in the state. Among them, the Kurichyas are notably prosperous, often owning small-scale agricultural lands. Wayanad's tribal communities have preserved unique cultural practices, art forms, and traditional knowledge systems, adding to the district's cultural richness (Kerala Tourism, n.d.).

The moderate urban expansion, coupled with Wayanad's steep terrain and cool climate, has helped retain its pristine natural environment. The district experiences a cool, misty climate throughout the year, with temperatures ranging from 10°C to 25°C and an average annual rainfall of 2,500 mm, mostly during the monsoon season. This combination of favourable climate, natural beauty, and cultural diversity makes Wayanad a major ecological and cultural hotspot in Kerala, attracting nature enthusiasts, researchers, and tourists from across the globe (ibid).

District Formation

Wayanad district lies in the Bayalu Seeme region, a highland area of the Nilgiris Biosphere Reserve. Geographically, it shares similarities with the neighbouring districts of Kodagu and Mysore in Karnataka and the Nilgiris in Tamil Nadu (see appendices 4.3). The Wayanad plateau serves as a continuation of the Mysore Plateau. During the British colonial period, Wayanad was a taluk within the former Malabar District. The areas now forming the taluks of Gudalur and Pandalur in the present-day Nilgiris district, collectively known as Southeast Wayanad, were originally part of the Wayanad taluk. In 1877, Southeast Wayanad was transferred to the Nilgiris district to address the heavy population in Malabar and the relatively smaller area of Nilgiris. Until 1924, Wayanad remained a separate revenue division within Malabar District. Following India's independence, the States Reorganization of 1956 saw the Mysore state (now Karnataka) claim Wayanad due to its historical and geographical connections. However, the linguistic survey conducted during the 1951 census (Census Report 2011).

Revealed that 87.5% of Wayanad's population spoke Malayalam, while only 6.2% spoke Kannada, affirming its ties to Kerala.

On January 1, 1957, the Malabar District was reorganized into Kannur, Kozhikode, and Palakkad. Wayanad taluk was divided into North Wayanad and South Wayanad, with both initially becoming part of the newly formed Kannur district. Two months later, on March 15, 1957, South Wayanad taluk was transferred to Kozhikode district, followed by the transfer of North Wayanad to Kozhikode on January 1, 1979. The district of Wayanad was officially established on November 1,

1980, by combining North Wayanad and South Wayanad, making it Kerala's 12th district. On the same day, North Wayanad taluk was renamed Mananthavady, while South Wayanad was split into the taluks of Sultan Bathery and Vythiri. Kalpetta, located in Vythiri taluk, became the administrative headquarters of the newly formed district (Ibid).

History Behind the District

Wayanad is one of the historically significant districts of Kerala, with a history that spans various social, cultural, and historical changes. The history of Wayanad dates back to ancient times, with some evidence suggesting that the region was part of ancient Dravidian kingdoms, some Historians believe that Wayanad associated with the Naga dynasty, with archaeological evidence such as ancient stones, copper inscriptions, and images of serpents carved into rocks suggesting such a connection. The history of this region reflects its cultural and philosophical development over time. Historians assert that human settlements in the Wayanad region date back to at least 1,000 BCE. Numerous remnants of New Stone Age civilization are evident across the hills of the present-day Wayanad district. Notably, the Edakkal Caves feature rock engravings estimated to be 6,000 years old, providing a significant glimpse into the Neolithic period. However, the recorded history of the district emerges only from the 18th century. In ancient times, this region was under the rule of the Rajas belonging to the Veda tribe (Ibid). Some historical records of Wayanad monarchy are given below: -

Ezhimala Kingdom

In the early recorded history of Wayanad District, the regions comprising present-day Kasaragod, Kannur, Wayanad, and Kozhikode were under the rule of the Nannans of the Mushika dynasty, later known as the Kolathiris. Politically, this area was part of the Ezhimala Kingdom, with its capital located at Ezhimala in modern-day Kannur district (University of Calicut, n.d.). Among its rulers, the most prominent was King Nannan, whose kingdom stretched as far as Gudalur in the Nilgiris and the northern regions of Coimbatore. According to Sangam literature, Nannan is believed to have sought refuge in the Wayanad hills during the 5th

century CE after a defeat to the Cheras, shortly before his death in battle (Wikipedia).

Wayanad formed part of the eastern territories of the Ezhimala Kingdom, known as Karkanad, which encompassed the Wayanad-Gudalur region and parts of Kodagu (Coorg). Karkanad, along with Poozhinadu—a coastal stretch between Mangalore and Kozhikode—was administered under the Ezhimala Kingdom, with its headquarters at Ezhimala (Ibid).

Linguistic and historical studies have linked an inscription found in the Edakkal Caves in Wayanad, dated to the 3rd century CE, as potentially the oldest inscription containing Malayalam words. The inscription features two words, *Ee* (this) and *pazhama* (old), which some linguists regard as early evidence of Malayalam. However, historian M. R. Raghava Varier, an expert in Edakkal inscriptions, has warned against such interpretations, suggesting that the inscription reads "Sri Vazhumi," meaning "Sri Brahma" in Tamil, and dates it to the 3rd–4th century CE. Contrarily, Vedachalam interpreted it as "Vazhumi" and dated it to the 5th–6th century CE (Ibid).

Kolathunadu, originally ruled by the Mooshaka kings, is believed to have descended from the lineage of Nannan. By the 14th century, the Mooshaka Kingdom had evolved into Kolathirinad, and its rulers came to be known as the Kolathiris. At the height of its influence, Kolathunadu's territory stretched from the Netravati River near present-day Mangalore in the north to Korapuzha in Kozhikode to the south. The kingdom was bordered by the Arabian Sea to the west and the Kodagu hills to the east, with its domain also encompassing the remote Lakshadweep islands in the Arabian Sea (Rajesh, 2010).

Kingdom of Kottayam

The Kolathiri Dominion eventually fragmented into ten independent principalities, including Kadathanadu (Vadakara), Randathara or Poyanad (Dharmadom), Kottayam (Thalassery), Nileshwaram, Iruvazhinadu (Panoor), and Kurumbranad, each governed by separate royal chieftains due to internal conflicts.

The Nileshwaram dynasty, situated at the northernmost part of the Kolathiri domain, shared familial ties with both the Kolathunadu rulers and the Zamorin of Calicut during the early medieval period (The Hindu Staff Reporter, 2011).

The origins of the Kottayam royal family (referring to Kottayam-Malabar near Thalassery, distinct from the southern Kottayam in Kerala) remain obscure. Historical accounts suggest that the Raja of Kottayam established a semi-independent principality, weakening the authority of the Kolathiris. During the 10th century CE, the region, encompassing the former taluks of Kottayam, Wayanad, and Gudalur, was known as Puraikizhanad, ruled by feudal lords called Puraikizhars. The Thirunelly inscriptions indicate that in the early 11th century, the Puraikizhar family split into two branches—Muthukur (Elder) and Elamkur (Younger). By the 17th century, Kottayam-Malabar had become the capital of the Puraikizhanad (Puranattukara) Rajas, who further divided their rule into three branches: Eastern, Western, and Southern, each governed by Mootha, Elaya, and Munnarkur Rajas, respectively. The Kottayam Rajas extended their influence up to the Kodagu border and, by the late 17th century, shared control of Thalassery taluk with the Iruvazhinadu Nambiaris. They also governed North Wayanad and the small village of Thamarassery, which later became part of Vadakara, Quilandy, and Thamarassery taluks (Government of India, 2014–2015).

The Thamarassery Pass, connecting Wayanad with Kozhikode, was constructed in the 18th century under the orders of Tipu Sultan, the ruler of Mysore. Long before this, in 930 AD, Emperor Erayappa of the Ganga dynasty led his army southwest from Mysore and, after conquering the region, named it Bayalnad, meaning "land of swamps" (Moraces, 1931). Following his death, his sons Rachamalla and Battunga fought over the kingdom, with Battunga emerging victorious. In the 12th century CE, the Kadamba dynasty of North Canara overthrew the Gangas in Bayalnad. Subsequently, in 1104 CE, Vishnuvardhana of the Hoysala dynasty invaded the region, followed by the Vijayanagara rulers in the 16th century. In 1610 CE, Udaiyar Raja Wadiyar of Mysore expelled the Vijayanagara general and took control of Bayalnad and the Nilgiris. The name "Wayanad," the present-day designation of the district, evolved from Bayalnad, its original Kannada name.

The Early Kadambas

Historian Sanu Kainikara notes that following the Sangam period, the 4th and 5th centuries posed challenges for the Cheras, who once ruled over the entire Kerala region, including Kanyakumari District and its surroundings. During this time, they lost control over certain parts of Kerala, including Wayanad District, due to the rising dominance of the Kadamba dynasty. Evidence of this is found in the Kadamba inscriptions at the Edakal caves in Wayanad.

A Buddhist text from the same period describes how the Kalabhra king Achuta Vikkanta overpowered the three major southern dynasties—Pandya, Chera, and Chola—and even took their rulers captive. Between the 5th and 10th centuries CE, the Cheras were significantly weakened, struggling to resist external invasions. Their power was greatly diminished, leaving them with only a small territory and forcing them to exist under the influence of stronger northern empires from Karnataka, such as the Kadambas, Badami Chalukyas, Rashtrakutas, and Kalyani Chalukyas, who frequently invaded and traversed their lands at will (Wikipedia, n.d.).

The Kudumbias

The two caves of Ampukuthimala, known as the Edakal Caves in Sulthan Bathery, are adorned with pictorial writings and wall carvings that offer insights into an ancient civilization. At the base of the Edakal Male (hill) caves, Kannada inscriptions dating back to the 5th century CE were discovered. These inscriptions, attributed to Vishnu Varma, a Canarese chieftain of the Kutumbiya (Kudumbiya) clan from Mysore, read: *Palapulitaanamtakaari* (or *Pala pulinânam ta-kâri*), *Sri Vishnu Varma Kutumbiya Kulavardhanasya li..it..a...* According to epigraphist Hultzch from Chennai, the inscription highlights Vishnu Varma as a distinguished descendant of the Kutumbiya clan, renowned for slaying numerous tigers (Kainiraka, 2016).

Badami chalukyas

The Chalukyas were initially vassal rulers under the Kadamba dynasty, which governed the Kanara coast from around the fourth century. In the sixth

century, Pulakeshin I, the first Chalukya king, established his capital at Vatapi (Badami) and performed the grand horse sacrifice to proclaim his independence from the Kadambas.

The Chalukya dynasty dominated the Deccan Plateau and its neighboring regions for over six centuries before eventually fading from the historical records of the Indian subcontinent, much like many other dynasties before and after them (Chattopadhyay, n.d.).

The Western Gangas

The recorded history of Wayanad district dates back to the 10th century CE. In 930 CE, Emperor Erayappa of the Western Ganga dynasty led a military campaign to the southwest of Mysore, conquering the region and naming it *Bayalnad*, meaning "land of swamps." Following his reign, a conflict arose between his sons, Rachamalla and Battunga, over their father's legacy. Rachamalla was eventually killed, leaving Battunga as the sole ruler of *Bayalnad* (Kainiraka, 2016).

The Later Kadambas

The Kadambas of Bayalnad ruled over a large territory in southern India during the 11th and 12th centuries, gathering strength soon after the decline of the Gangas and after the invasion of the Chola invasion of the peninsula. These lands, which today are located in the districts of Wayanad (Kerala), Mysore (Karnataka) and Kolar (Karnataka), and extend into the territory of Tamil Nadu, were under their rule. The capital city of the dynasty was the city of Kirttipura in Punnad (Ten Thousand, an historically important province) as inscribed evidence shows. Under the reign of Kadavamma (1079-1083) the country stretched as far as Budapadi (Budikote, Kolar District) to the east, Kikkere (Mysore District) to the north, into Kerala territory on the west, and southward as far as Terumangala (Tamil Nadu). Despite assaults and erosion of territory, Kadambas made their presence felt as important regional politics, styles of queen like hairstyles, plump cronies and fat mamas, were adopted, titles like Mahamandalesvara, Rajadhiraja, the lion seal, the monkey flag and the bull signet of the royal makers made their appearance. The

situation which was observed during the ruling of this royalty was comprised of substantial political unity, struggle against larger politics as well as cultural dispersion all over the bayalnad region (Nimkar, 2009). In the Western Chalukya (Kalyani Chalukya) regime of Tailapa II (973-997 CE), the foundation of a number of Jain Basthis in Wayanad helped emerge Jain centres and agricultural settlements at Wayanad. By 1104 CE, the Hoysala king Vishnuvardhana invaded Bayalnad and the Nilgiris, annexing them into his expanding empire. The Kadambas of Bayalnad continued to hold power intermittently, with Mukkanna Kadamba ruling around 1138 CE. By the 14th century, the region came under the control of the Vijayanagara Empire, where Immadi Kadamba Raya Vodeyayya, a feudatory chieftain of the Sangama dynasty, ruled as a vassal of Vijayanagara. These successive rulers shaped the political, cultural, and religious landscape of Bayalnad over several centuries (Wikipedia, n.d.).

The Mysore Wodeyars

In 1610 CE, Udaiyar Raja Wadiyar of Mysore expelled the Vijayanagara general and took control of Bayalnad (present-day Wayanad) and the Nilgiris. Even in the 17th century, Jainism remained influential in Wayanad, as evidenced by an inscription discovered at a Jain Basti in Varadur near Panamaram, dated to Saka era 1606 (1684 CE). This inscription, studied by historian M. R. Raghava Varriar, refers to early Jain settlements and temples in Wayanad. A copper plate inscription, placed under a water fountain at the Varadur Ananthanatha Swami temple, details a grant of ritual materials to the Jain Basthis of Wayanad by Lalithappa, the younger son of Bommarasa of the Karkala Aremane Basathi.

The Kannada inscription, dated Sakavarsha 1606 (1684 CE), Rakthakshi Samvatsara Jeshtabahula Shukravara, records that Lalithappa provided materials like silver, copper, and brass for temple rituals at the Karkala Aremane Basthi. The particular references to Jain Chaithyalayas (temples) may be identified in the mid-18th-century inscription of Wayanad. Such temples are Arepathra, Bennegodu, Palagondur, Hanneradubedhi, Puthangadi (now Muthangadi) and Hosangadi. Even though, the Arepathra Chaityalaya has not yet been found out, it is generally

considered that this temple was located on top of a small hill by a river like Panamaram. In the case of the other temples, the places can be confirmed by their modern Malayalam names, Venniyode, Palukunnu, Sultan Bathery, Puthangadi and Mananthavady (Kulandayar, 2008; Kuttan, n.d.). Dr. M. R. Raghava Varriar (2012) asserts that Wayanad had seven important Jain centres: Manikyapuri, Ksheerapuri, Kalpathi, Vennayode, Palagonda, Hosangadi and Hanneradubedhi. It is believed that Manikyapuri was located at present-day Manichira, although the exact location of Ksheerapuri remains unidentified. Kalpathi is likely to be Kalpetta, the current headquarters of Wayanad district, while Anjukunnu was previously known as Hanjugonda, among other places (Raghava Varriar, 2012).

Mysore Sultans

Mysore Sultan's era is an important part of Kerala history. During the period of Hyder Ali's rule, the ghat road from Vythiri to Thamarassery was constructed. Later, under the British, this route was further developed into Carter Road. After the death of Hyder Ali, his son Tipu Sultan assumed control over the territory, continuing his father's policies and expanding his influence in the region, including over Wayanad. Tipu Sultan's rule saw significant administrative changes and military campaigns, as he sought to consolidate power and defend his kingdom against external threats like the British East India Company.

When Tipu Sultan ruled Wayanad, the British invasion began, leading to a period of turbulence. The British claimed control over Wayanad through the 1792 Treaty of Srirangapatna, asserting it was part of Malabar. However, Tipu Sultan appealed to the Governor General to reconsider the claim. After taking into account Tipu's arguments, as well as Wayanad's historical association with Karnataka rule and its geographical separation from Malabar, Lord Mornington, the Governor General, issued a proclamation in 1798 declaring that Wayanad had not been ceded to the East India Company by the 1792 Treaty. As a result, the British troops withdrew from Wayanad, acknowledging Tipu Sultan's rule (Wikipedia, n.d.).

The Colonial Era

The British colonial rule in India marked a significant chapter in the country's history, shaping its political, economic, and social structures. Beginning with the establishment of the British East India Company in the early 17th century, British influence gradually expanded through trade, military conquests, and strategic alliances. Over time, the company transitioned from a commercial enterprise to a governing authority, eventually leading to direct rule by the British Crown after the Revolt of 1857. Western bureaucratic forms of government, legalized laws and massive infrastructure schemes characterized by the establishment of the railways and telegraphs, introduced by the British colonial administration were largely referenced for a later formation of the state. However, tremendous economic exploitation, land revenue systems that impoverish peasants, and active discouragement of local industrial production accompanied this era as well. Therefore, we saw resistance movements across the sub-continent as several groups attempted to gain political independence. The British had to face a particularly strong resistance of local rulers, warrior caste and ordinary people of Malabar. As opposed to other regions where a colonial power was gradually brought under control with a diplomatic marriage as an instrument of the policy, the Malabar turned out to be an object of constant struggle. This resistance was mainly headed by Kerala Varma Pazhassi Raja who used guerrilla warfare in the forest valleys and hilly interiors of Wayanad and this resistance posed a major setback to this imperial expansion. There were also recurrent rebellions against colonialism in the region, especially the Mappila rebellions, that lasted many decades in protest to British seizure of land wealth, and their cooperation with the Brahmin landlords. These revolts signified a huge act of peasant ferment.

The uprisings that broke out in the nineteenth century, necessarily driven by social-economic frustrations and generally the urge to free the Malabar coast of British rule was held to be a decisive articulation of popular opposition to imperial rule. The British were first faced by a fierce resistance that was led by Kerala Varma Pazhassi Raja whose rule enjoyed the loyalty of the Thalassery -Wayanad. Yet at the very last only his mutilated body was taken by the colonialist government, a

phenomenon that made a critical turning point in the history of Malabar. The death of Raja helped in the direct integration of Wayanad in a directing process that affected the region due to British rule. The systematic cultivation of tea and other export commodity was to come with the laying of the back-breaking roads across the difficult terrain of the plateau thus connecting Wayanad with Kozhikode and Thalassery. These roads were later extended to Mysore and Ooty via Gudalur. As a result, settlers from various parts of Kerala migrated to Wayanad, and the region's fertile land yielded exceptional harvests of cash crops. Large-scale agricultural cultivation began in earnest after 1900 AD. An old map of Malabar District (1854). Note that the taluks Pandalur, Gudalur, and Kundah in present- day Nilgiris district were parts of Wayanad Taluk in 1854. The Taluks of Malabar were rearranged in 1860 and 1877. (Source:-Wikipedia nd).

Post Independence

Wayanad became the 12th district of Kerala on November 1, 1980, after being formed from parts of Kozhikode and Kannur districts. The name "Wayanad" is believed to have come from "Vayal Nadu," which means "land of paddy fields." The district has a large forest area, with many of Kerala's reserve forests located here.

Wayanad has a significant tribal population, including communities such as the Paniyas, Kurumas, Adiyas, Kurichiyas, Ooralis, and Kattunaikens. Though it is considered a less developed district, Wayanad contributes significantly to Kerala's economy through the cultivation of cash crops such as pepper, cardamom, coffee, tea, and other spices, which are important for foreign exchange earnings (District Institute of Education & Training [DIET], 2009). There were organized struggles in a nominal way in Wayanad District later on in connection with national struggle for freedom with the involvement of Malabar Unit of Indian National Congress formed in 1910.

There were also waves of National Struggle in Wayanad in repercussion of the Kerala Pradesh Congress Convention held in 1928 in Payyannur. Mahatma Gandhi also visited Kalpetta (Puliyarmala) on the 14th January 1934 as a part of national struggle for freedom. With the involvement of Adivasis, the movement against untouchability was strengthened by various prominent leaders. The capture of

Wayanad by the British marked a new turn in the history of this area. The British Authorities opened up the plateau for cultivation of tea and other cash crops. Communication was established by linking Wayanad to Kozhikode and Thalassery by constructing roads across the dangerous slopes of Wayanad. These roads were extended to the cities of Mysore and Ooty through Gudalur. People from other Districts started settling down in Wayanad and at present it has become rich area with an abundance of cash crops. When the State of Kerala came into being on the 1st November 1956, Wayanad region constituting the present District was a part of Kannur District. Later on South Wayanad Taluk was transferred to Kozhikode District and North Wayanad Taluk was retained in Kannur District. When the District was formed on the 1st November 1980, South Wayanad and North Wayanad Taluks became part of Wayanad District. North Wayanad was named as Mananthavady and South Wayanad was bifurcated into Sulthanbathery and Vythiri Taluks (censusindia,2011).

The People and Population

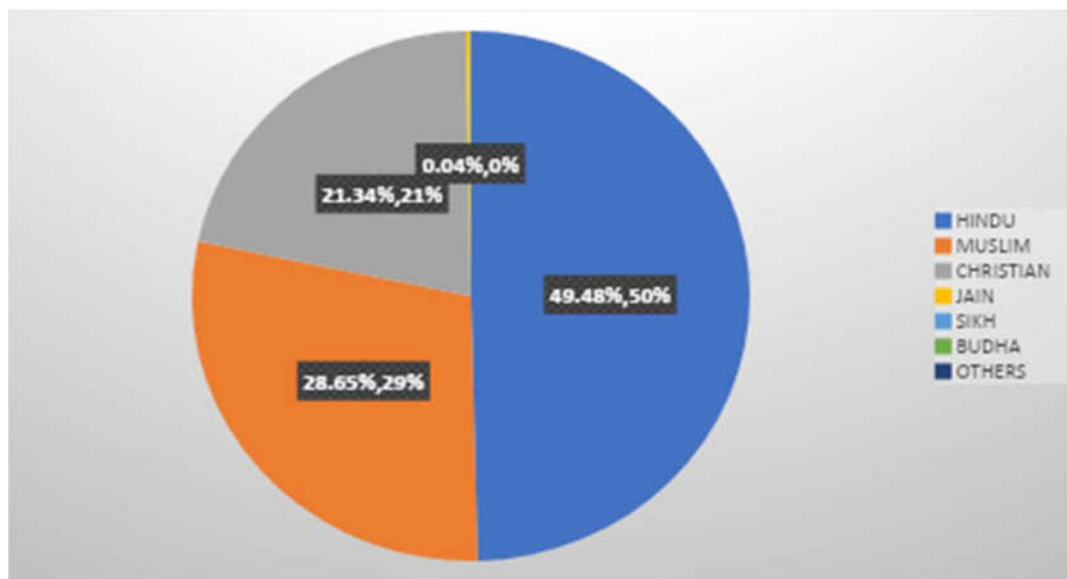
One important characteristic feature of the district is the large adivasi population, consisting mainly of Paniyas, Kurumas, Adiyars, Kurichyas, Ooralis, Kadars, and Kattunaikkans. They are the different aboriginal tribes of Wayanad. The tribal population in wayanad constitutes 18.5 per cent of the district population and 36 per cent of the State's tribal population. Major communities found in the district are Paniyan (44.06%), Mullu Kuruman (17.34 %), Kurichian (16.10 %), Kattunaickan (11.33%), Adiyan (7.41%) and Urali Kuruman (3.13 per cent). The Kurichyar is the most developed among them. They are small land owners, whereas the members of other tribes are mostly labourers. Wayanad district stands first in the case of adivasi population (about 36%) among other districts in the state.

Wayanad has a large settler population. People from almost all parts of Kerala and neighbouring states Karnataka and Tamil Nadu have migrated to this fertile land for building up their lives. Wayanad has a small Jain community consisting of Gowders who came from Karnataka. They have built beautiful temples all over the district. It has become tourist attractions. The bulk of the migrant labourers that work on Wayanad's plantations are from Tamil Nadu and Karnataka. Many of these labourers are immigrants from Tamil Nadu (CMID, 2017).

Almost all sections of Christianity are well represented. One fourth population of Wayanad is constituted by Christians. Muslims constitute another one fourth population and rest of the population belongs to Hindus. Their hard work and sacrifice helped them to prosper. On the other hand, the last few decades have seen the complete marginalisation of the indigenous people (censusindia, 2011)

Wayanad's cultural fabric is predominantly influenced by its tribal communities. Despite being considered economically underdeveloped, the district significantly contributes to Kerala's foreign exchange earnings through the cultivation of lucrative cash crops such as pepper, cardamom, coffee, tea, spices, and other condiments. Their hard work and sacrifice helped them to prosper. On the other hand, the last few decades have seen the complete marginalisation of the indigenous people. The history of Wayanad dates back over ten centuries before Christ, with evidence suggesting human habitation during that era. Early historical details about the district are scant, although remnants of a New Stone Age civilization are visible on the hills of Wayanad.

Religious Graph Of Wayanad District



(Source: - Indiagraphy.com)

Fig. 4.2. Religious Graph of Wayanad

The pie chart represents the distribution of various religious categories based on percentages. The Hindu segment, shown in blue, makes up the largest portion, accounting for 49.48% (approximately 50%) of the total. Following this, the Muslim segment, represented in orange, contributes 28.65% (about 29%), making it the second-largest category. The Christian segment, depicted in gray, accounts for 21.34% (21%), ranking third. The Jain category, shown in yellow, registers 0.0%, indicating a negligible or non-existent representation. Additionally, categories such as Sikh, Budha, and Others are listed in the legend but are not visibly represented, suggesting their proportions are too small to display. Overall, the chart highlights the dominant share of the Hindu category, followed by Muslims and Christians, while the other groups remain minimal or unrepresented.

Myth behind Wayanad

Changala Maram or Chain Tree is a major attraction for travelers who pass through the Calicut- Wayanad route. You can see steel chains hanging from the branch of the tree. The tree has a story to tell. The myth of the tree is associated with the tribal chief Karinthandan, who lived between 1700-1750 AD. During the British colonial era, Wayanad didn't have any developed roads. Wayanad was blessed with dense forests and hills only the tribes knew the paths through these forests. Karinthandan belonged to the Paniya tribe, he was the chief of that tribal community (see appendix b). He knew every path in the forest. So when the British Viceroy announced a reward for those who find a way from Thamarassery to Wayanad through the forest, a British engineer took the help of Karinthandan to find the route. After discovering the hidden routes in the forest the engineer took Karinthandan to the top of the hill and shot him dead so that he could take the credit for finding the route. The British built the road through the forest, which is now known as the Thamarassery Churam. After making the road the British started to exploiting the resources of Wayanad. But the road became haunted, and a lot of accidents happened on the road, and the people believed that all of this is because of Karinthandan's ghost. So the people called a priest to find a solution to this problem. After a lot of effort, the priest was able to chain the ghost to a Ficus tree, which is now known as the Changala Maram or Chain Tree. The tree is now grown to 25 feet height. A small temple built near the tree and started to worship Karinthandan (coffeetrailresort, 2017).

Administrative Setup

In Wayanad district, the administrative structure is organized under two main systems: the Revenue system and the Local Self Government system. Under the Revenue system, the district is divided into Revenue Divisions, Taluks, and Villages. On the other hand, for the purposes of local governance, the district is divided into Statutory Towns and Panchayats. For implementing development programmes, the Panchayats are grouped under Community Development Blocks. Each of these units—Taluks, Villages, Panchayats, Panchayat Wards, Statutory Towns, and Development Blocks—plays a significant role in the overall administration and developmental planning of the district.

According to official data, Wayanad has only one Revenue Division, which is Mananthavady. This division includes three Taluks and 49 Revenue Villages. Kalpetta is the only Statutory Town in the district and also serves as the district headquarters. The district is further divided into three Community Development Blocks: Mananthavady, Kalpetta, and Sulthan Bathery, under which a total of 25 Grama Panchayats function. It is noteworthy that during the 1991 Census, there were only 24 Panchayats. We can note the fluctuations in the total population of Wayanad District throughout the millennium in Table 1. Peaks were notable in 2001, after the formation of Muppainad Panchayat out of the trifurcation of Meppady Grama Panchayat. The Taluk headquarters in the district is located in Mananthavady, Sulthan Bathery and Vythiri, due to administration purposes.

Table 4.1**Block Panchayath and Grama Panchayath**

S. No	Name of Block Panchayath	Population	Area (KM)	Head quarters	Number of Grama Panchayath
1	Mananthavady	244541	666.51	Mananthavady	6
2	Sultan Bathery	129369	529.75	Sultan Bathery	5
3	Panamaram	175938	350.86	Panamaram	5
4	Kalpetta	193646	582.21	Kalpetta	9

Literacy rate

The literacy status of Wayanad shows a moderately positive picture, even though it still remains slightly behind the overall literacy level of Kerala. The total literacy rate in Wayanad is 89.03%, which is lower than the state average of 94%, but still better than the national average. This suggests that while Wayanad has made progress in the field of education, there is still room for improvement when compared with other districts in the state.

Looking at the gender-wise data, there is a clear gap between male and female literacy rates. The male literacy rate in Wayanad is 92.51%, while the female literacy rate is 85.7%. This 7% gap shows that women still face challenges in accessing education equally. Wayanad exhibits a moderately favorable situation as analyzed by the literacy landscape in the area which is marginally less than average literacy index in Kerala. The total literacy rate of the district is 89.03 % and although it is higher when compared to the entire country, it remains below the state standard at 94 %. This scenario implies further educational development, but, at the same time, highlights the fact that there is still a room to improve compared to other districts in the state. Gender disaggregation reveals that a high gap exists between the levels of male and female attainment. It has the male rate of 92.51 %, and the same female rate is 85.7 %. The 7 % difference shows that gendered disparities in access to schooling persist but, relatively speaking, are fairly small in a jurisdiction that is otherwise described as having high levels of human-development indicators. An additional analysis of rural-urban inequalities reveals the literacy rate in urban conditions (91.18 %) is higher than in the rural situation (88.95 %), however, the examined inequality is rather modest. Similar results tend to appear in gender terms; Urban male literacy rate (94.13 %) beats rural male literacy rate (92.45 %), with urban female literacy rate (88.4 %) ahead of the rural female literacy rate (85.59 %). These trends highlight the more difficult conditions women in rural Wayanad perform their education activities.

The relative gender ratios to read and write are relatively fair in Wayanad, but slightly lower as compared to the overall state of Kerala. These results

demonstrate the need to continue with the corrective measures that are aligned with reducing the gap between female and male literacy and rural and urban access to education. Specific policy measures and long-term state-level monitoring are essential in achieving the potential in terms of literacy of the district.

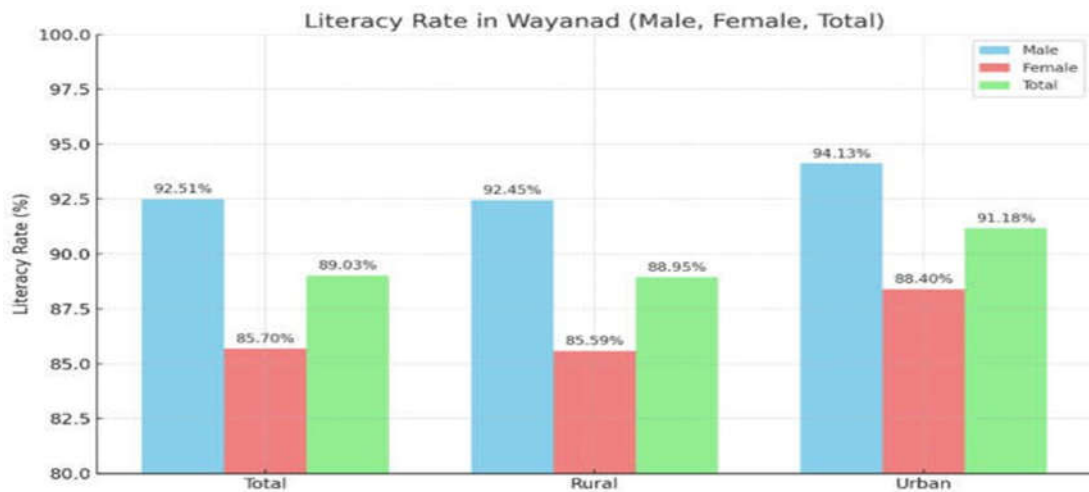


Fig. 4.3. Literacy Rate in Wayanad

The bar chart provides a comparative view of literacy rates in Wayanad district across total, rural, and urban areas, categorized by gender. It clearly shows that male literacy is consistently higher than female literacy in all regions. The highest literacy rate is recorded among urban males (94.13%), while the lowest is among rural females (85.59%). The total literacy rate stands at 89.03%, with urban areas (91.18%) performing slightly better than rural areas (88.95%). The chart also reflects a gender gap of around 7%, which is more pronounced in rural areas. This visual representation highlights the need for focused educational interventions, particularly for women in rural Wayanad, in order to bridge both the gender and urban-rural disparities in education.

Geographical feature

Wayanad is a stunning natural wonderland, with rolling hills, tangled jungles and natural green valleys. Its calm ambiance, set with the background of the Western Ghats, creates the impression of natural refuge. The temperature, which is wonderful balance of mild breezes and soothing showers, hail stones increasing the beauty. It

helps to support the region's beautiful flora, fauna and wildlife. Wayanad, with its mist covered mornings and plaid plantations, provides an amazing retreat in to nature, encouraging tourists to enjoy the peaceful majesty of one of Kerala's most stunning landscapes. There are several works in Malayalam literature that vividly portray the landscape and biodiversity of Wayanad. One notable example is *Vishakanyaka* by S. K. Pottekkatt, which beautifully describes the enchanting forests of Wayanad.

Mountains are:-

- | | |
|--------------------------|----------------------------|
| ➤ Chembra peaks-2345 mts | ➤ Elembilerimala-1839mts |
| ➤ Brahmagirimala-1608mts | ➤ Kunnelippadimala-1607mts |
| ➤ Thariodmala-1553mts | ➤ Vellarimala-245 mts |

Climate

Wayanad is a beautiful place up in the hills of the Western Ghats, and most of the area is covered with forests. It gets a lot of rain every year—on average about 2322 mm. But places like Lakkidi, Vythiri, and Meppadi get even more rain, sometimes between 3000 to 4000 mm. Lakkidi, which is in Vythiri Taluk, gets the most rain in Kerala. Some even say it's the second rainiest place in the whole world, just after Cherrapunji in Meghalaya. Rainfall isn't the same all over Wayanad. The southern regions of Wayanad, such as Lakkidi and Meppadi, receive significantly higher rainfall compared to the northern parts like Pulpally, which get nearly half as much. This considerable variation in precipitation, combined with the district's small size and hilly terrain, makes it difficult for standard weather charts to accurately reflect the local climatic conditions (Kumar & Srinath, 2011).

Wayanad sees four seasons. It's cool from December to February, then hot from March to May. The heavy southwest monsoon hits from June to September, and then comes the northeast monsoon during October and November. During the monsoons, strong winds are common, and in March and April, dry winds blow. In the highland areas, it can get really cold. People here also remember a special kind

of rain called *Noolmazha*—a soft, thread-like rain that would fall non-stop for hours. It was something unique to this region and part of Wayanad’s charm(jisha.n.d).

Rivers

In the physical geography of Wayanad, the Kabani River holds considerable importance. It is one of the few rivers in Kerala that flows eastward and serves as a major tributary of the River Cauvery. However, the Kabaniriver system is currently facing serious ecological threats (Rajeev, n.d.). The Kabani and its tributaries form a prominent river system that shapes the ecological and cultural landscape of the district. Its main tributaries include Panamaram puzha, Mananthavady puzha, and Bavali puzha. The Panamaram stream originates from the perennial Pokkode Lake and flows rapidly through mountain valleys, collecting waters from smaller streams along the way. It ultimately enters Panamaram valley. Approximately six-kilometers in its downstream flow connects with Mananthavady rivulet that originates in the foot hills of the Thondarmudi peak. The river is named Kabani downstream of this confluence. Here it makes its future course through Wayanad and flows into Karnataka and finally joins River Cauvery, thereby now forming a part of a bigger river system in South India. Wayanad has a well known bio-diversity and ecological importance. Encompassing diverse flora and fauna, the condition of which is characterized by the relative abundance of, the district accommodates various microorganisms. endemic species. There are about 2,000 flowering plants in the Western Ghats of which half of the total number of species is only reported in Wayanad. The presence of endemic species of flora, including *Tephrosia wayanadensis*, *Hedyotis wayanadensis*, *Cynomytra bourdilloni*, and *Bulbophyllum rheedei* illustrates a distinct proportion of ecological significance, that is, a special value in the region (Sabu, 2024). Wayanad is ecologically diverse, having forests, dense thickets, rocky grasslands, fallow fields, springs, streams canals and wet lands. However, in spite of the mounting pressure on forest reserves, one gets the chance to see some animals e.g. bonnet monkeys, loris, mongooses, jungle cats, squirrels, jackals, and hares. Greater wildlife such as elephants and bears tends to encroach into the Begur forest range and in and around Muthanga, particularly the Karnataka-Tamil Nadu adjoining sanctuaries. Such wildlife movement is very

critical in Muthanga which is only 20km distance north of Sulthan Bathery. The flora of Wayanad imparts a characteristic form of vegetation of the Western Ghats. The climatic condition of the district promotes culturing of plantation crops with coffee being one of the major crops that occupies a large area in the region. The plantations are often populated with shade trees, consisting of rosewood, anjili (*Artocarpus*), mullumurikku (*Erythrina*) and many other species of cassia trees. Not only do these trees give the much-needed shade but they also serve the natural beauty of the scenery. Also, the region is pretty well covered with *Pongamia pinnata* or a tree species that the local tribal communities use extensively as a medicinal tree.

Environmental degradation and disaster

Wayanad otherwise referred to as the green paradise of Kerala is the region of great natural beauty. It is located in the Western Ghat and has been characterized by hills, forests, waterfall as well as spacious plantations of spices. Other than being a beautiful place, Wayanad is a significant ecological zone. It belongs to the Western Ghats which is a UNESCO World Heritage Site in view of the high biodiversity and delicate environment. However, in the course of this quite remarkable beauty, there also lie some very grave problems. It has terraced land, steep paths and monsoon rains, which predisposes Wayanad to natural calamities- mostly landslides. Such environmental issues relate to how the land has evolved over the years. Wayanad had originally tribal inhabitants. communities. However, in later years other people began settling here. This resulted in great alteration of land use. Encroachment of land has been a problem of Wayanad in various periods of time. In the past, during the time of kings, people took land mostly for survival— because of poverty, lack of resources, and for national development. But today, land is being used for development, farming, tourism, business and industries. Even now, people continue to use land without proper planning, and that is causing serious damage to the environment.

One of the main reasons for repeated disasters in Wayanad is unscientific land use. When people don't consider important factors like the nature of the land, weather, soil type, river flow, or natural drainage, the chances of disasters increase.

That's why sustainable and eco-friendly land use is very important to keep the balance of nature and protect people's lives.

Reports from the District Disaster Management Authority (DDMA) for the years 2018 and 2019 show that Wayanad faced many disasters like landslides, floods, river overflow, land cracks, and springs bursting open. Several studies have pointed out the district's serious environmental problems. Notably, the Gadgil Committee and Kasturirangan Report gave strong warnings. Environmental expert Madhav Gadgil said that wrong land use and overuse of natural resources are destroying the Western Ghats. He also mentioned that the hills with cracks also indicate larger calamities and he recommended that such places should be considered highly sensitive and safe. Wayanad is not facing local problems alone with the disasters. The reason is that they form a larger problem on global climate change. According to the UN Office for Disaster Risk Reduction (UNDRR), one of the worst climate-related disasters to hit in the year 2024 was the Wayanad landslides (Sharma, 2025). It is an indication of why improved planning, early warning, and engaging the local community in disaster prevention are urgently needed (UNDRR, 2025). Because of the hilly nature and the weak ecological framework, there are high chances of landslides in Wayanad district which has become one of the most devastating natural calamities in recent times. The slopes, loose soil. Its vitally intense rainy deposits form such a natural environment susceptible to such disasters. Landslides have been the most devastating of all the various disasters that hit the region especially in the monsoon.

The extent and intensity of these landslides have been increasing over time due to a combination of natural and human-induced factors.

The causes of disasters in Wayanad can mainly be divided into two types: Natural Causes and Anthropogenic causes.

1. **Natural Causes** – These include heavy rains, floods, landslides, land cracks, river overflows, and spring bursts. Most of these happen due to extreme weather and Wayanad's fragile location in the Western Ghats.

Conditioning Factors (Predisposing Factors) :-These are the underlying, long-term factors that make a slope inherently vulnerable to landslides. They create the conditions for instability but do not directly cause the landslide.

- **Soil and Rock Composition:** The stability of a slope is significantly influenced by the nature of its materials, such as loose soil, decomposed rock, or poorly consolidated sediments.
- **Topography:** The landscape's gradient and shape play a crucial role. Steeper slopes are inherently more vulnerable to landslides than those with gentler inclines.
- **Geomorphology:** Past and present geological processes that shape the landscape impact the likelihood of slope failure.
- **Slope Alteration:** Both natural and anthropogenic modifications, such as erosion, excavation, or the addition of weight to slopes, can destabilize the terrain.
- **Water Content in Soil:** The presence of water in soil affects its weight and internal pressure, significantly impacting slope stability.
- **Vegetation:** The type and extent of vegetation influence slope stability. While root systems reinforce the soil, deforestation removes these stabilizing factors, increasing the risk of landslides (StudyIQ, 2024).

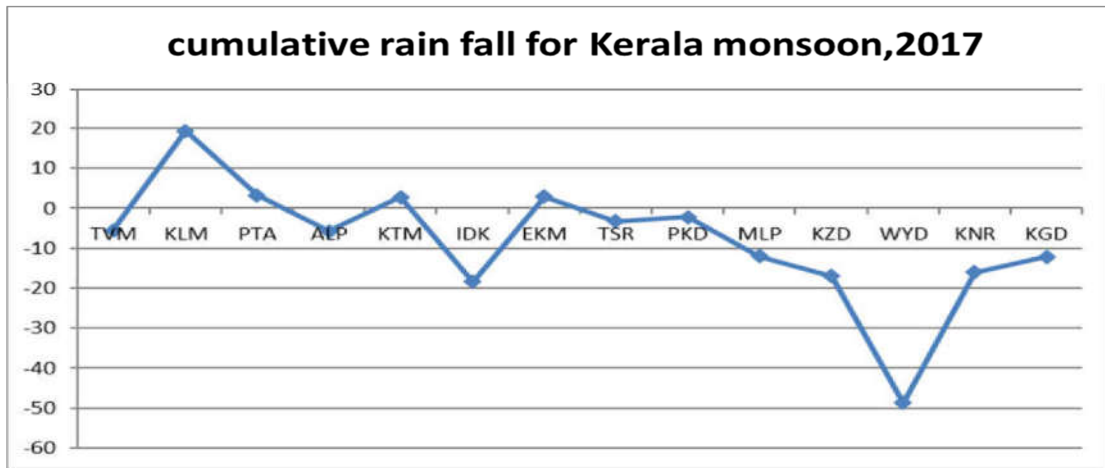
Triggering Factors

These are the immediate causes that directly initiate a landslide by adding sudden stress or altering the stability of a vulnerable slope

- **Intense Rainfall:** Wayanad enjoys a salubrious climate, with an average annual rainfall of 2,786 mm. The regions of Lakkidi, Vythiri, and Meppady receive the highest rainfall in the district. Southern, south western, and north eastern areas typically experience more than 3,000 mm of annual rainfall, whereas the eastern and north eastern regions receive comparatively lower

rainfall, measuring less than 1,500 mm. Certain areas bordering Karnataka receive even less rainfall, with some falling under the rain shadow region. Rainfall tends to increase towards the southern, southwestern, and northeastern parts of the district. Both the southwest (SW) and northeast (NE) monsoons contribute to the region's rainfall, with the SW monsoon accounting for nearly 80% of the total precipitation. June is the wettest month, while July, August, and October also experience heavy rainfall. The climate in Wayanad is generally hot and humid. March and April are the hottest months, whereas January and February are the coldest. Maximum temperatures range between 28.9°C and 36.2°C, while minimum temperatures vary from 17.0°C to 23.4°C. Temperature levels begin to rise in January, peak in March and April, decline during the monsoon months, and rise again from September onwards (Department of Mining and Geology, 2016). In 2017, the India Meteorological Department reported that Kerala received 564.15 mm of rainfall, compared to the normal 619.2 mm, marking an 8.89% shortfall over 29 days. While Kollam received 528.73 mm against a normal of 443.1 mm, Wayanad experienced significantly lower rainfall, recording only 333.7 mm against a normal of 650.6 mm. Due to this deficit, industry estimates predict a 20% decline in coffee production in Wayanad, while thousands of pepper farmers anticipate a poor harvest (Nandakumar, 2017).

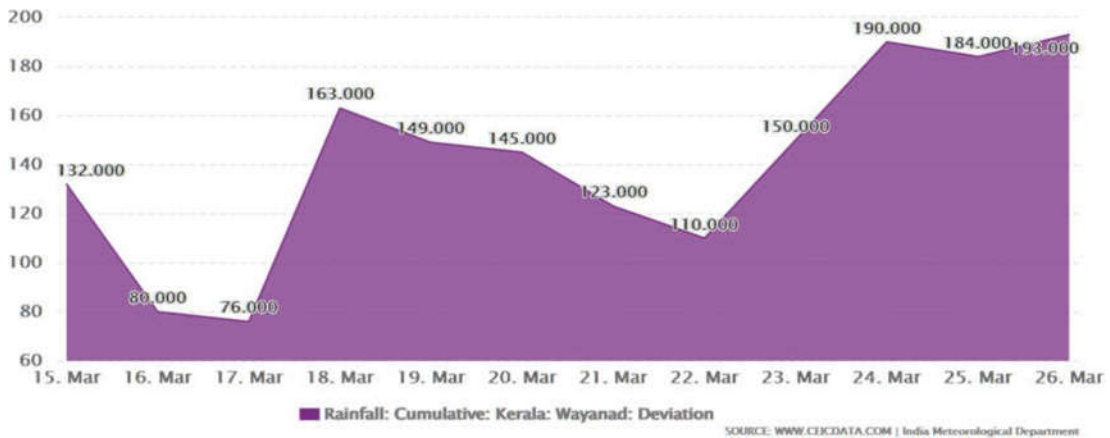
Thomas Ambalavayal, Secretary of the Wayanad Paristhithi Samrakshana Samithi, highlighted that biodiversity in Wayanad is rapidly declining due to climate variations.



(Source: - CEIC Data, 2025).

Fig. 4.4. Rainfall Data 2017 Kerala Monsoon

P. Rajendran, Associate Director of Research at Kerala Agricultural University's Regional Agricultural Research Station, emphasized the urgency of the situation, stating that Wayanad is facing severe climate change impacts. He noted that the district has experienced an unusual rise in temperature—up to five degrees over the past five years. Previously, the temperature increased at a rate of 0.02 degrees Celsius per year, whereas it is now rising by one degree Celsius annually, signalling an alarming trend (Rajeev, 2016).



(Source: - CEIC Data, 2025).

Fig. 4.5 Rainfall Data in the Last 10 Years in Wayanad

The diagram shows the daily cumulative rainfall deviation for Wayanad district, Kerala, from 15 March to 26 March 2025, given as a percentage difference from the normal cumulative rainfall for this period. During these twelve days, the deviation stayed positive throughout, meaning that rainfall was higher than the long-term average on all days. On 15 March, the deviation was 132%, indicating that the cumulative rainfall was already more than one and a half times the expected amount. It then dropped sharply to 80% on 16 March and further to 76% on 17 March, showing a short period of reduced rainfall accumulation. On 18 March, there was a steep rise to 163%, pointing to a major rainfall event that more than doubled the surplus. This high level continued with slight decreases until 20 March (145%), before falling to 123% on 21 March and 110% on 22 March. A second heavy rainfall phase began on 23 March with a rise to 150%, followed by another sharp increase to 190% on 24 March, which was the second-highest during this period. After a small drop to 184% on 25 March, the deviation reached its peak of 193% on 26 March, which is almost double the normal cumulative rainfall. This pattern suggests that short but intense pre-monsoon rainfall events, separated by brief drier spells, caused sudden changes in rainfall deviation. In a hilly and landslide-prone district like Wayanad, such sustained and high rainfall surpluses can lead to serious impacts, including soil saturation and slope instability (CEIC Data, 2025).

While the district recorded below-average rainfall in 2017, it experienced extreme weather events in the following years. In 2019, Wayanad received extremely heavy rainfall exceeding 500 mm, and in 2024, the district witnessed more than 800 mm of rainfall within 32 consecutive hours. These fluctuations indicate that severe climate change is already affecting the region (*First Information Report in Mundakkai-Chooralmala Areas, Meppadi Grama Panchayat, Vythiri Taluk, Wayanad District, Kerala*, prepared on 30.07.2024).

- Heavy precipitation saturates the soil, increasing its weight and reducing internal cohesion, which can lead to slope failure. When rainwater enters the unsaturated zone of the soil, it increases the pore water pressure. This rise in pressure reduces the soil's shear strength, which in turn lowers the overall stability or safety factor of the slope. In slopes with coarse-grained soils,

slope failure mainly occurs due to the build-up of positive pore water pressure. On the other hand, in slopes with fine-grained soils, the primary reason for failure is the loss of matric suction. Changes in pore water pressure in unsaturated soils are greatly influenced by the rainfall pattern, including its intensity, duration, and frequency (Malla & Dahal, 2022).

- **Seismic Activity:** Earthquakes shake the ground, dislodging rocks and soil, disrupting slope equilibrium, and causing collapses
 - **Soil Piping:** it is a major factor in triggering landslides in Wayanad. Soil piping is a geological phenomenon where underground tunnels or cavities are formed due to the gradual removal of soil by subsurface water flow. This process weakens the structural integrity of slopes, making them prone to sudden collapse and landslides. Reports suggest that soil piping may have played a significant role in triggering the Wayanad landslide by creating hidden voids beneath the surface, which eventually led to slope failure (Subash, 2024). In the Western Ghats, particularly in lateritic terrains, soil piping has contributed to land subsidence, affecting agriculture, infrastructure, and water availability. Open wells have become unsustainable, even during heavy monsoons, and surface structures, including roads and dams, have been compromised. The first instance of the phenomenon was reported in Kannur and Thirumeni village in 2005 and since then it is found to be prevalent in other districts as well such as Kasaragod, Wayanad, Palakkad, Idukki, and Pathanamthitta. Soil piping has been greatly enhanced by deforestation that reduces the number of roots to bind soil. Because of the lack of vegetations, rainwater can be percolated with a higher velocity, dissolving the under layers and increasing the cavity on an underground scale. This has enhanced the occurrence and landslides and floods in the Western Ghats thus the terrain susceptible to the extreme weather conditions.
- 2) **Human-Induced (Anthropogenic) Causes:** Unscientific use of land, deforestation, excavation, building of structures on ecologically sensitive areas, and the exploitation of the environment have arguably been major

causes of disaster risks. According to Gadgil Committee Report, and Kasturirangan report, humans have exhausted their fruits, they have drunk up their waters and walked over their earth. Environmental degradation has been worsened by activities, like the mega-developments in infrastructure, unregulated tourism, encroaching and drying up of natural water sources. Besides, there is terrible waste disposal and too much sand mining which has added to the unstable nature of the region that increases its vulnerability to disasters.

Unscientific Land Use:- Uncontrolled and abrupt change in land use pattern may drastically hamper the natural equilibrium of the region and this is of utmost priority in areas like Wayanad which are sensitive ecologically. Whenever the development occurs without care on environmental impact, most of the times the developer overlooks the matters of natural drainage direction, the nature of soil and whether the ground is on slope or not. The conversion of agricultural land and particularly the paddy fields which being underground water acting as a sponge is now converted to living colony, business building or plantation is evident with respect to many areas of Wayanad. The end result of such conversion is an immense decrease in the land capacity to retain and capture rainwater, which increases the surface runoff. This excessive runoff may result in flooding of streams and rivers in the area due to overloading during times of excessive rainfall resulting in flash flooding. In a similar manner, the wetlands (wet places that act as natural sponges) are also being filled in order to construct other buildings. The even use of marshy lands and marshes as resorts and homestays under development has upset the natural water-absorption capacity of the land in the Meppadi and Vythiri areas, among others. In the absence of such buffer zones, rain water falls down the hill at a very high velocity causing destructive erosion of slopes leading to landslides. This already bad situation is further aggravated on the hill slopes in steep hills where the unscientific building process, like cutting part of slope to erect roads or houses, destabilizes the soil structure. With no proper varying walls or plant cover to retain the soil its slopes are easy to give way and face collapse during some heavy downpour during rainy seasons.

Deforestation

Deforestation may be described as massive destruction of forests in which forests are cleared or felled either in agriculture, plantations, road or settlement provisions. This has dire environmental effects in places with hills like Wayanad. The leaves and roots that shield soil are no longer there meaning that the exposed soil becomes vulnerable. Tree roots the plants render the soil extremely stagnant and, in their absence, the soil loosens and easily washed away by rain which causes mud erosion. Forests also offer a natural safeguard against flood and landslides also. They reduce the rate at which rain water flows thus it percolates down slowly into the ground. Without the forests, the rain water is drained too quickly along the surface hence posing a likely risk of floods in the low-level areas and causing landslides in the slopes. In addition, deforestation destroys the habitats of many plant and animal species destroying diversity and rendering the ecological balance ineffective. All these alterations lead to the destabilization of the environment in order to recover stability over the natural calamities in time. Massive deforestation and transformation to tea/coffee and cardamom plantation and to the spread of settlers and the building of roads have also been common all over Wayanad. To illustrate this example, vegetation encroachment as witnessed by clearing of trees in plantation activities has removed the dense tree cover on the steep slopes in Meppadi region. During the landslide of 2019 Puthumala, the absence of indigenous deep rooting trees was noted as having resulted in a heightened instability of the soils in which heavy rains that had led to large scale slope failures. The case explains how deforestation has the potential of increasing landslides and floods vulnerability in hilly areas directly. In the early nineteenth century, the establishment of tea plantations in Wayanad began as an experimental venture initiated by the British. The initial phase of tea cultivation in the region was led by the East India Company. Over time, the ownership of these estates changed hands multiple times. As part of the expansion of tea plantations, extensive deforestation took place in the district (Shumais, 2024). This led to the loss of the region's natural vegetation and brought about adverse changes to the ecological balance. According to Gadgil, the deforestation causes to ecological watershed. Trees are very important for keeping

soil in place. Their roots hold the soil tightly, so it does not get washed away by rain. The leaves and branches reduce the speed of raindrops hitting the ground, while fallen leaves cover the soil like a blanket, slowing down rainwater and helping it soak into the ground. On slopes, tree roots act like anchors, stopping the soil from sliding down. Forests also store more rainwater, which reduces the speed and force of water flowing over the land, thereby preventing erosion.

When trees are cut down, the soil loses this protection. The roots decay and leave empty spaces underground. In some soils, especially loose or sandy ones, rainwater flows through these spaces and slowly carries away the fine soil particles. This process is called soil piping. Over time, these underground holes can collapse, causing sudden pits, gullies, or even landslides.

In Wayanad, cutting down forests for plantations, houses, and roads has made hill slopes more open to both surface erosion and soil piping. Once soil piping starts, it is hard to notice until serious damage appears. This can weaken the ground under roads, buildings, and farms. Planting trees and keeping natural vegetation on slopes is therefore very important to stop this problem and reduce disaster risk.

Quarrying and Mining

Unregulated quarrying of rocks and excessive sand mining from rivers have significantly disturbed the natural geological balance of Wayanad. Removing the supporting rock layers through quarrying on or near steep slopes, while frequent blasting widens cracks that further weaken the structure, making it more susceptible to collapse when there's a heavy rain. Moreover, there is an excessive sand removal, river beds lowered and the bank of the river being eroded, at the risk causing a flood and bank failure. For decades, humans have continued to disrupt the ecosystem with its diverse plant and animal life- destabilizing slopes and riverbanks and affecting water flow patterns that ultimately lead to landslides and additional environmental repercussions throughout the region.

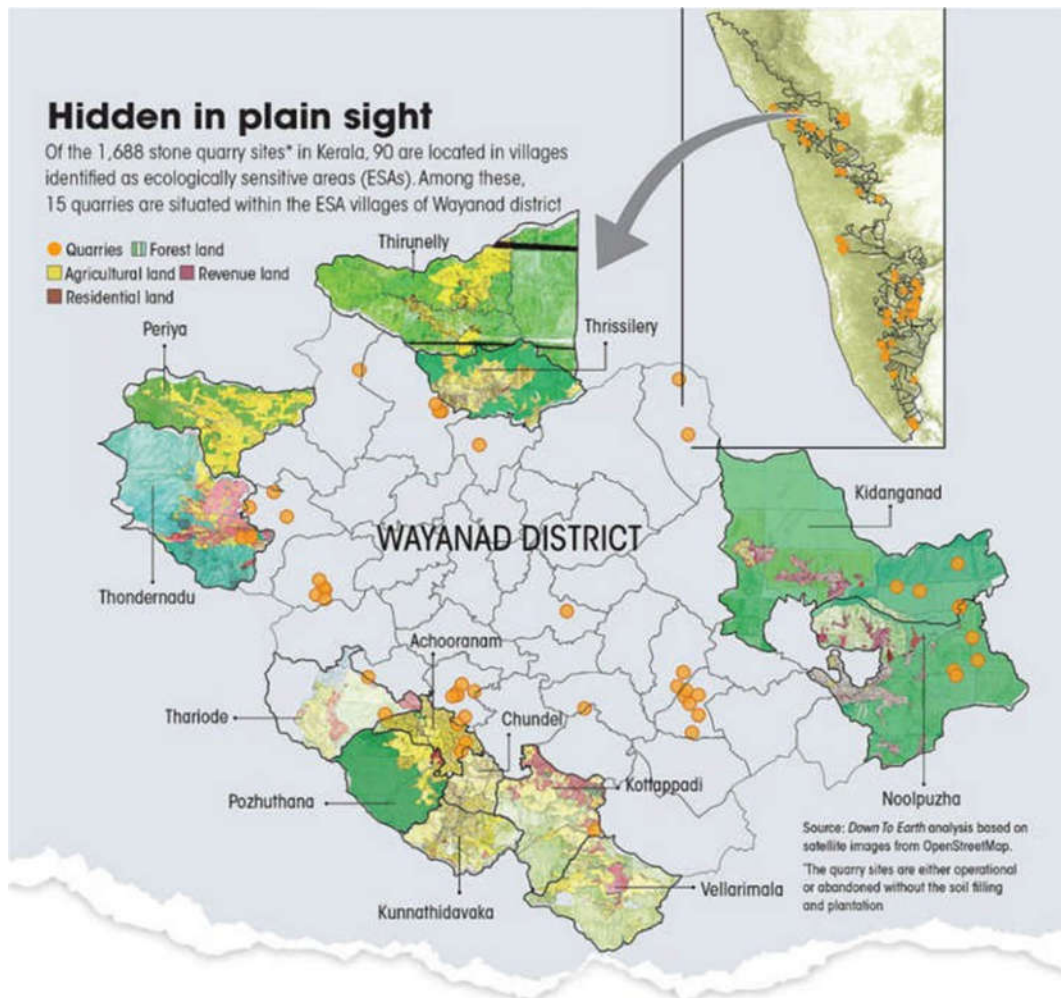


Fig. 4.6. Stone Quarry sites in Wayanad

Down To Earth analyzed satellite images and found at least 48 stone quarries in the district with 15 in the ecologically sensitive areas (ESAs), where such activity was legally banned. A number of quarries many were not properly backfilled and replanted after they had been abandoned had destabilized the hillsides through their constant rock blasting techniques which created cracks that water could penetrate and undermined the soil structure. It was observed by the experts that all this enhanced insecurity exposed the sensitive base of Wayanad to landslides at the time of heavy monsoons (Krishnamurthy & Roy, 2024).

Construction in Ecologically Sensitive Zones

Development of road ways, resorts, housing policies and others opening into the vulnerable surfaces of hill slopes, river beds and wet lands is putting excessive pressure on the ecosystems. The construction, in most cases, necessitates slope cutting, vegetation removal, and drainage way change, a factor that undermines the stability of the land. When carried out in riverbeds and in wetlands, building activities hinder the flow of water and diminish it. sink groundwater, replenish itself, and eliminate nature runoff barriers. On hillsides, such changes cause slopes to be more susceptible to erosion and landslides and in the low lying zones, the changes intensify the occurrences of flooding. This uncontrolled growth in ecologically vulnerable areas, over time, greatly increases the risk of disasters, particularly, in the heavy monsoon rains.

Table 4.2

Permit for constructions of any building in Wayanad district

Sl. No	Geographic area	Maximum height of the building including under ground construction if any
1	Lakkidi area of the Vythiri grama panchayaths comprising the whole of Kunnathidavaka villegge.	Eight meter Limited to maximum two floor levels
2	Municipality area	Fifteen meter Limited to maximum five floor levels
3	All other areas in the district	Ten meter Limited to maximum three floor level

Source: proceedings of collectorate, Wayanad district

Land Encroachment in Wayanad

The encroachment of land in Wayanad is not a new factor in the area and has taken different shapes and forms over time resulting from diverse causes. During the earlier times, the territory growth by local dynasties incursions, respectively, by colonial nations, led to massive land grabbing. Encroachments were further fueled, later, by poverty and the seeking of arable land. Large-scale conversion of forests

and wetlands was also facilitated by government-led programs, e.g. building of dams. More recently, business-related tourism, such as adventure parks, spas, resorts, restaurants, and others, has brought about a new form of encroachment in recent decades, which can take shape very quickly in ecologically vulnerable locations. This has accelerated following the COVID-19 pandemic, with tourist activities becoming more and more day and mushrooming over short distances, in extreme cases with 6 or 7 tourist attractions within 25 kilometers. The results of these developments are the illegal seizure and deforestation of forests, wetlands and riverbanks that are important ecological buffer zones. Such areas absorb excess rainwater, slow surface runoff, and recharge groundwater. When these natural buffers are degraded or lost, the landscape's capacity to manage heavy rainfall declines, resulting in faster water flow, higher flood peaks, and increased disaster risks during monsoon seasons.

Agricultural Modernisation and Land Alteration

Agricultural modernization has created serious problems in districts like Wayanad, where there has been a shift from the traditionally sustainable tribal economy to capital-intensive, market-oriented, and profit-driven farming (Mathew, 2018). In the past, Wayanad's agriculture was mainly based on paddy cultivation in wetlands and ragi cultivation in drylands. Paddy was widely grown and held great importance in the local economy (Nair, 2016).

The roots of capitalist agriculture in Wayanad can be traced back to the mid-nineteenth century, when British planters introduced coffee and tea cultivation (Menon, 2004). Over time, non-tribal settlers also began cultivating crops like coffee, tea, pepper, and cardamom. This shift towards cash crops led to large-scale conversion of paddy fields into banana plantations, which consume more water and cause faster depletion of water resources (George & Kumar, 2019). As wetlands have shrunk, groundwater levels have dropped, making some areas vulnerable to drought during the long summer months (Kumar, 2020).

To increase profits, farmers have adopted chemical pesticides and fertilizers. However, many of these practices are unscientific and have polluted the soil, water, and surrounding environment (Kerala State Planning Board [KSPB], 2021). Pesticide residues in some parts of Wayanad have reached levels harmful to human health (Centre for Water Resources Development and Management [CWRDM], 2018). The most polluted areas include Vengoor in Sulthan Bathery Panchayat, Varayal in Muttill Panchayat, and Periya, Thavinjal, and Alattil in Mananthavady Taluk. Studies show that banana and ginger cultivation are the main sources of pesticide use. For example, the pesticide carbofuran is used extensively in banana plantations—about 125 to 150 kilograms per acre—amounting to roughly 1,075 tons applied annually in the district (CWRDM, 2018). Other pesticides, such as thimet, malathion, endosulfan, and ecalux, are also widely used, many of which are persistent organic pollutants (KSPB, 2021). As a result, both the soil and crops have become contaminated.

Although modern technologies have improved agricultural production and increased income, they have also introduced harmful farming practices (Mathew, 2018). The century-old sustainable farming system has collapsed, and the cost of cultivation has risen. These changes have affected biodiversity, water resources, ecosystem functions, and the overall balance of the agricultural system (Nair, 2016). Farming has increasingly become an agribusiness aimed at quick economic gains, causing a loss of agro-biodiversity, environmental degradation, and threats to sustainability (George & Kumar, 2019). Farmers also face market pressure to produce more, leading to greater dependence on harmful practices. A migrant farmer, Krishnan, recalls that his family migrated from Tamil Nadu during his grandfather's time, when farming involved long hours of manual labour. Now, technological advancements and pesticide use have reduced the workload, but they have also created new environmental and health risks. The excessive use of contemporary agriculture poses additional problems regarding the future of agriculture in Wayanad (Kumar, 2020).

Conclusion

Wayanad has been facing extreme environmental destruction and climatic change in the recent years. The natural ecological balance of the region has been highly altered through deforestation, uncontrolled tourism, large-scale plantations of monoculture crops and vigorous urbanization. Agricultural and commercial activities have caused habitat loss, erosion and degradation of soils and reduction in groundwater tables due to clearing forest cover. There is also a problem with the unpredictable weather conditions such as rainfall failure and temperature increase which has contributed to increase frequency of landslides and flash flooding, this has affected both the environment and the way people of the area make their livelihood. The previously steady climate of Wayanad has also been volatile as widespread periods of drought alternating with big rain fall hence resulting in begging of crops and water shortages. The situation has been intensified by the shrinkage of native vegetation and wetlands which have denied the region its natural resilience in terms of adaptation to climate change. The current environmental crisis in Wayanad requires urgent conservation, sustainable land-use and climate adaptation plans and strategies in case of the possible short- or medium-term decline.

Wayanad, earlier renowned as a milieu that boasts of breath-taking sceneries, flourishing biodiversity and agreeable climate has seen a metamorphic eco-socioeconomic transformation that has transformed most of the strengths into adversities. Thick forest cover, which used to host wildlife with its thriving environment and sustaining ecological balance, is getting smaller because of deforestation and uncontrolled land use. The climate which was always cool and refreshing, throughout the region has grown to be uncertain and the hikes in temperature, irregular rainfalls and regular natural calamities in form of landslides and flood have increased. Soil erosion, vanishing groundwater, and crop failure due to climatic changes have put the agricultural prosperity that used to be supported by the potential of the land and plenty of water in jeopardy. In the same light, tourism that was initially beneficial to the surrounding economy gave rise to pollution,

garbage, and overutilization of natural resources. High urbanization and infrastructural development that were supposed to advance development has resulted in the destruction of habitat and loss of traditional livelihoods. The transformations emphasize the desperate need of sustainable development, preservation measures and adaptations to the climate, in order to regain the ecological balance in Wayanad that has been lost.

CHAPTER-5

CIVIL SOCIETY INTERVENTION IN DISASTER MANAGEMENT: ANALYSIS

The present chapter makes a commentary on the inference of the role played by the presence of civil society organizations (CSOs) in the management of the 2019 and 2024 Meppadi landslides with a particular emphasis on the flood rehabilitation programs provided by Meppadi Grama Panchayath within the Wayanad District in Kerala. This will be done to analyze the role of civil society organizations (CSOs) and Inter Agency Group in providing the recovery process following the major occurrence of floods and how the organizations interacted with the governmental organizations in their dealing with disaster management. In analyzing it, the key concerns in the process of rehabilitation have been brought up including the mobilization of resources, the identification of beneficiaries of the relief planning and implementation process. It will also look at the divergent views regarding the roles, which CSOs must play in relation to the management of disasters, with emphasis on weaknesses/strengths of CSOs. Building on the clues of past crisis situations, the chapter is expected to sketch some patterns of doing better and give the recommendations that are likely to be used to strengthen ties between CSOs and government agencies. Going by this evaluation, the research will provide a clear illustration of how the civil society engaged itself in disaster rehabilitation, and what this entails when it comes to disaster management activities in future in Wayanad and other similar cases.

Ultimately, the findings of this chapter will contribute to the ongoing discourse on improving disaster preparedness, response, and recovery frameworks, with the goal of building more resilient communities in the face of recurring disasters. These groups collaborate to minimize disaster risks, provide relief, and ensure recovery.

As the system under the District Authority has certain limitations and it is difficult for them to manage in specific situations, a co-operative group has been

formed under the authority. As per the Indian Disaster Management Act 2005, a collaborative meeting of non-governmental groups was held in all the districts of Kerala as part of the exclusive mandate of the district authority and an Inter-Agency Group was formed. The Inter Agency group is doing remarkable services in the post flood scenario and all other emergency situations in the district, especially in the sectors of shelter, water and sanitation, search, rescue, essential materials distribution, livelihood and agriculture development etc. although there are over 90 above NGO within the district, those who are members of IAG are currently active in the district. The IAG members have a strong base in the grass root level, which helps the District Administration to mainstreaming of the disaster management interventions and Disaster Risk Reduction measures to be implemented as part of community-based disaster management. In the district level IAG meeting held on 02/06/2020 at Collectorate Wayanad, it was decided to reconstitute District level IAG and 9-member executive committee for the effective implementation of IAG programs in the district. At present there are 45 members and the executive committee consists of 9- members. This is the way at the present moment they are functioning within emergency situation. Disaster management at the district level is structured by two systems that have different phenomenons that relate to plusses and negative policies. The former system is supervised by the government and is hierarchical and structured. This makes it more coordinated, protocol driven and systematic in the allocation of resources, but in situations that require a swift response, a lack of flexibility may be a penalty. The civil society groups, considering the non-governmental organizations and community networks, are the second system of commodities in which they process the idea of commodities with more laxity and decentralization. These organizations engage the use of local knowledge, encourage team-work, and are fast in terms of addressing prompt needs. Collectively, these systems generate a harmonized mix on how to tackle disasters involving the ordered planning that a government well-organized system brings, the speed and ingenuity of the civil society endeavors. Repeated floods in Wayanad point to importance of both the government agencies and non- government organizations (NGOs) in managing disaster. All given entities made important

contributions to the reduction of the disaster effects, and their strategies and results demonstrating essential distinctions.

Analysis of the Study Area: Meppadi, Wayanad District

The tea gardens, forest, blurred hills and cool climatic condition of Meppadi make it a beautiful village at the hill ranges of Wayanad district. It resides in the ecologically sensitive Western Ghats that is biodiversity and at the same time highly susceptible. The beautiful landscape that characterizes Meppadi is the large terrains, shaky laterite earth and downpour of rainfall in monsoon seasons which makes the region very vulnerable to landslides. Other than natural causes, deforestation, alteration of water channels and inefficient land utilisation techniques have increased the likelihood of the disaster in the region with time, deforestation and unscientific land usage being the most important combinations. The initial big scale land slide in Aranamala, Thakarappadi, Mundakkai occurred on July 1, 1984. It decimated 17 people, and devastated 80 acres of land. The trained rescue teams and technical support did not exist as rescue teams and expert assistance. The second prominent landslides occurred on 8 August 2019 at the place of Puthumala where 17 people recorded as dead, 5 reported as missing and 102 households damaged. The very recent and deadliest accident was at 30 July 2024 with multiple landslides reported in the Punchirimattom and Mundakkai Chooralmala and Vellarimala at a few hours apart. The events took away the lives of 254 people and a questionable 397 others were injured and 118 still are still missing.

This was one area where CSOs were very useful in the rehabilitation process in the wake of these disasters. Most of the voluntary organizations, religious trusts, and student groups were dynamically involved in serving food, dress, drinking water, and temporary shelters in the post-disaster phase. In particular, CSOs in collaboration with the government systems were able to recognize the local needs and convey aid in the aftermath of the 2019 Puthumala disaster. After the colossal ruination in 2024, they have significantly contributed to rescue work and purposely provided psychosocial help. There were also other organizations that offered financial help in the reconstruction of houses and loss of livelihoods.

However, there were criticisms at times regarding the lack of transparency in the allocation of funds and resources. According to local residents, in the future, CSOs should work in a more coordinated manner with government agencies to implement long-term rehabilitation plans. Therefore, in the context of recurring landslides in Meppadi, the role of civil society in post-disaster rehabilitation is highly significant. Joint efforts by the government and CSOs in sustainable land management, hazard mapping, and the implementation of early warning systems are essential to safeguard both the lives of the people and the environment in the future.

Role of Government Agencies

Government agencies, operating under a structured framework, focused on large-scale coordination and resource mobilization. The district administration spearheaded efforts such as issuing early warnings, evacuating vulnerable populations, and managing relief camps. The deployment of state forces, including the National Disaster Response Force (NDRF) and local police, ensured systematic rescue operations. However, the bureaucratic nature of government agencies sometimes resulted in delays in decision-making and challenges in adapting to rapidly changing on-ground conditions. Despite these limitations, their ability to mobilize significant resources and maintain accountability was essential in managing the disaster at a macro level.

District Disaster Management Plan Wayanad(DDMP): The District Disaster Management Plan (DDMP) for Wayanad was initially developed in accordance with the Disaster Management Act of 2005. This plan received approval from the District Disaster Management Authority (DDMA) during its meeting on February 21, 2015, before being submitted to the Kerala State Disaster Management Authority. Later, the Government formally endorsed it through G.O.(Rt) 3104/2016/DMD, dated July 30, 2016.

The Disaster Management Act mandates an annual review of the plan under Section 32(4). Acting on this provision, the DDMA convened on September 6, 2016, and decided to update the existing plan. To ensure comprehensive inputs, all local governing bodies in Wayanad, including the District Panchayat, Block Panchayats,

Municipalities, and Gram Panchayats, were asked to review the plan and submit their suggestions or proposals for its revision. Afterwards, a common session with these local authorities alongside DDMA was concluded on October 5, 2016, where the method of revision was to be explained and the collaboration was to be sought. The revised DDMP was carefully drafted in a fashion that compares to the primary frameworks including Disaster Management Act of 2005, the National Disaster Management Policy of 2009, the State Disaster Management Policy of 2010, the National Disaster Management Plan of 2016 and Kerala State Disaster Management Plan of 2016. This is a revised form of the version delivered to the DDMA at its September 3, 2021, Meeting. The Personnel decided to grant an approval of the revised plan under Section 31(2) and 31(4) of the Disaster Management Act after a careful consideration.

Table 5.1

Structure of District Disaster Management Authority in Wayanad District

Sl.No	Organization and Designation	Designation in DDMA
1	District Collector	Chairperson
2	The President, District Panchayat	C0-Chairperson
3	The Additional District Magistrate (ADM)	Chief Executive Officer, Member
4	The Superintendent of Police	Member
5	The District Medical Officer of Health	Member
6	The Assistant Divisional Officer, Fire & Rescue Services	Member
7	The Principal Agricultural Officer	Member

Powers and Duties of District Disaster Management Authority (DDMA)
The Disaster Management Act, 2005 directs the District Disaster Management Authority (DDMA) who is bestowed with the provisions and responsibilities of the Act. It has a major responsibility to organize, plan and implement disaster management actions at district level. It is the nodal body that coordinates and takes

charge in the operations of all the departments/agencies in the district involved in disaster response and preparedness. The DDMA makes sure that all the activities that surround disasters are performed coordinately. This would involve the process of establishing a clear system that would signal adequate resources, equipment, trained B. Staff, processes and communication network that would be needed in case of a disaster. It is able to generate several systems and assign individual services to various departments. It also has the capacity to revise current administrative architecture in order to enhance disaster management. At Wayanad the role of DDMA has been transferred to its Chairman and District Collector to ensuring that work in disaster management is done in an efficient and fast manner.

Important Roles and Responsibilities of the District Authority

The District Authority is meant to be the primary agency to plan, co-ordinate and implement disaster management activities at district level following guidelines provided by the National and State disaster management authorities. Its most important functions include the preparation of district level disaster management plans, identification of risk prone areas, policy implementation and advising departments in the government and local organizations in development of disaster risk reduction in development efforts and activities. Preparedness also functions as a duty of the authority that tracks measures, trains officials and volunteers, raises awareness, and avails the early warning systems. In times of disaster, it organizes the disaster response, oversees relief centers and maintains stockpiles of materials needed. Along with this, it coordinates the activity with NGOs and with the local organizations, ensures the well-being of infrastructure, and informs the State Authority regularly. In general, the District Authority is critical in having the most effective disaster preparedness, response, and recovery through local action cooperation.

District Administration: The DDA, geared up and coordinated all efforts aimed at the management of disaster. The District Collector, being the Chairman of DDMA and in the capacity of the District Incidence Commander, lead and controlled the whole efforts of disaster management. The DEOC (District Emergency 39 Operation

Center) was activated with its emergency time functions just after receiving heavy rainfall alerts. Alert messages were issued to various responding agencies including Revenue, Police and Fire & Rescue. Rescue shelters were made ready. Preventive evacuation was taken care of. People were shifted to rescue shelters, in anticipation of disaster, so as to avoid casualties.

- **Kerala State Disaster Management Authority (KSDMA):** State Disaster Management Authorities are statutory entities established under the Disaster Management Act, 2005 (Central Act 53 of 2005) (Local Organisations' Coalition for Advancing Localisation [LOCAL], n.d.). The Kerala State Disaster Management Authority operates as a statutory, non-autonomous body chaired by the Chief Minister of Kerala. The Kerala State Disaster Management Authority (KSDMA) has mobilized the Fireforce and the National Disaster Response Force (NDRF) teams under the leadership of Revenue Minister K.Rajan. Provides guidelines and support for disaster risk reduction and mitigation in Wayanad. There are five ministers camping concentrating on organizing the rescue efforts in the impacted regions in Wayanad.
- **Local Self-Governments (Panchayats and Municipalities):** Local self-governments, including Panchayats and Municipalities, play a crucial role in disaster management as they are the closest administrative units to the affected communities. Their responsibilities encompass all stages of disaster management: mitigation, preparedness, response, and recovery. Engage in grassroots-level disaster planning, early warnings, and relief distribution. It can be said that the most responsible duty of the Grass-root level administration is that the representatives of LSG play a major role in the activities from the first notification or spot identification of the disaster and the awareness of the disaster site to the selection of people for rehabilitation. Local self-government bodies have been instructed to provide clean drinking water, food, and other facilities to those in the camps and those isolated. Ward members and political party leaders who visited daily at the relief camps.

- **Army, Airforce and Navy team:** The Indian Armed Forces, which include the Indian Army, the Indian Navy, and the Indian Air Force, have consistently provided essential support to the civil administration during natural disasters in India. They have served as the primary means for the government in disaster management. This responsibility is part of their secondary role of assisting the civil administration (Krishna, 2021). The armed forces have so far been using their own equipment that is primarily meant for combat operations. The commitment of operational equipment to disaster relief poses serious challenges. In the long run, this practice can adversely affect the armed forces' operational preparedness. The services have repeatedly expressed their concern regarding this issue and have recommended the maintenance of a separate cache of equipment specifically for rescue and relief operations. This proposal is currently under the consideration of the government (Chaudhary, 2014).

The Army, Navy, and Air Force teams played vital roles in the disaster response efforts in Wayanad district following the natural calamities. Their contributions encompassed rescue, relief, and recovery operations aimed at minimizing the impact on affected communities. The armed forces worked closely with the National Disaster Response Force (NDRF), state government agencies, and local volunteers to ensure a well-coordinated response. Their collective efforts played a vital role in saving lives, restoring communication networks, and providing timely relief to affected residents. This multi-force approach demonstrated the strength of India's disaster management capabilities and highlighted the armed forces' unwavering commitment to serving the nation during crises.

Health department: The Health Department has undertaken the responses to the medical needs due to Wayanad landslide promptly and extensively. A control center has been formed to organize relief and helpline numbers are provided to seek emergency help. Kozhikode, Kannur and Thrissur based special surgery, orthopedic and forensic departments have already been sent into the field as well as a panel of doctors in the private hospitals. In Chooralmala, temporary clinics have been established in mosques and madrassas and a temporary hospital is housed in a

polytechnic college. The local health activities are currently under the stewardship of the NHM state mission director to make processes as coordinated as possible. Also, the Kerala government has urged rescue workers to consume the tablets known as doxycycline, so as to help stop such communicable diseases as leptospirosis, which shows that there is a proactive behavior that guides it to prevent such diseases that might spread in the affected regions.

In response to the disaster in Wayanad, authorities have implemented several measures to manage the crisis effectively. Mortuary facilities are being expanded with the inclusion of mobile units, and a forensic team from Kozhikode has been deployed to expedite post-mortem procedures. DNA testing will be conducted on unidentified bodies, ensuring proper identification and documentation. Medicines, medical equipment, and ambulances are being supplied to the region, while private hospital doctors and government health workers have been instructed to provide immediate assistance. Additionally, Rapid Action Medical Units from the 108 ambulance service are being dispatched to enhance emergency healthcare delivery (The New Indian Express, July 2024).

- **Forest and Wildlife Department:** Plays a significant role in managing environmental hazards, particularly in forested areas prone to landslides and wildlife conflicts during disasters. The forests of Wayanad are well-known to the local forest officials for their steep hills, rugged mountains, and striking rock outcroppings, which add both beauty and challenge to the landscape. In Malayalam literature, the forest is vividly depicted in works such as *Vishakanyaka* (S.K pottakkat), highlighting its dangers and mystique. Entering the forest without proper guidance or professional training is highly challenging. During disaster situations, the fact that the affected area lies deep within the forest, where tribal communities are often trapped, presents additional obstacles to rescue operations. The immediate and accurate response by the forest department was critical in a way of saving the life of these tribal people. In a report filed by the Hindustan Times, Kerala Forest department officials had earlier embarked on a risky mission to save four

Civil Society Intervention in Disaster Management: Analysis

toddlers and their parents, who represent a tribal community and had been trapped in a cave on top of a hill in Wayanad after the landslides.



(Source: India Today Aug 3 2024 online)

Fig. 5.1. Rescue operation of Forest Department, 2024



(Source: India Today Aug 3 2024 online)

Fig. 5.2. Rescue operation of Forest Department, 2024

- **Education department:** In Wayanad, during the landslide, the Education Department was of great help in providing relief, by shifting schools to provide temporary relief centers. Five schools were provided in Kalpetta, Meppadi, four, and Chundel one. Another establishment was a polytechnic institution to deal with pulling in emergencies providing the much-needed relief services and holding the victims as well. Such initiatives made the displaced people get urgent access to shelter and basic amenities in the crisis.
- **Public distribution system:** The Public Distribution System (PDS) plays a crucial role in disaster-affected areas by ensuring the timely supply of essential commodities to vulnerable populations. The Food and Civil Supplies Department has launched steps to supply food grains and other essential supplies to relief camps for those displaced by the devastating landslides in Wayanad. The Civil Supplies Department and the Supplyco are in charge of providing food and water. The Water Resources Department has sent two tankers carrying 20,000 litres of drinking water (The New Indian Express, July 2024).
- **Electricity:** Three kilometers of high-tension lines and eight kilometers of low-tension lines were severely damaged in the disaster, disrupting the local power infrastructure. In addition, two transformers were completely washed away, while three others sustained significant damage. As a result, approximately 350 families in the area were left without electricity, which affected access to essential services such as lighting, heating, and communication. The outage also disrupted local businesses, healthcare facilities, and water supply systems reliant on electric pumps, compounding the challenges faced by the affected community. Although efforts were made to restore power, the extent of the damage caused delays in recovery. In the aftermath of the disaster in Wayanad, Kerala's Electricity Minister, K. Krishnankutty, directed the Kerala State Electricity Board (KSEB) to provide free electricity for six months to consumers in the landslide-affected areas. This project was meant to ease the sufferings of people in the areas destroyed by the disasters. The minister has also ordered power connectivity to be

restored immediately so that to restore basic services. These were some of the strategies initiated by the government in advancing recovery and rehabilitation process of the affected communities (Onmanorama, 2024).

Police: the case in Wayanad was a landslide where the police helped immensely in the safety and welfare of the affected citizens. They helped in rescue efforts and mostly collaborated with the teams of specialists in disaster response to retrieve the lives and evacuate the population in exposed territories. Regulation of traffic and limitation of access to hazardous areas were essential measures to promote free vehicle movement of the emergency vehicles and avoid additional losses. Another role of the police was the coordination of rescue teams, local authorities, to pass the correct information about the evacuation tactics, and the safety of people. They offered firsthand services that included assisting in distribution of relief materials and transporting of the injured individuals to hospitals. Another important challenge was the maintenance of law and order after the aftermath which prevented the exploitation or looting and gave security in relief camps. The police also assisted in other post-disaster efforts, like locating missing persons, cleaning rubbles, and aiding in the investigation of factors that might have caused the landslide. This time it was critical in reducing the impact of the disaster and restoring normalcy to their operations as a result of their quick and concerted efforts. According to the District Police Chief, they have participated in search operations, patrol, body escort, data collection and security in relief camps (The Hindu, 17/ 08/ 2024). The police have been on duty 24/7 in the disaster-struck areas of Punchirimattom, Mundakkai and Chooralmala in Wayanad and have become a hope to the distressed landslide victims. The police uphold their duty on the 18 th consecutive working day since the disaster occurred and they are determined and not put out by the magnitude of the disaster. The Meppadi police were the first to respond to the landslide, closely followed by District Police Chief T. Narayanan and his team. Under his leadership, the police joined hands with locals and volunteer organizations in rescue operations, demonstrating remarkable coordination and determination. “The initial response during a natural calamity is very crucial for rescue operations,” said Mr. Narayanan. The district police could utilize the golden

hours effectively to evacuate maximum number of people in the area, he said, adding, “We were able to rescue more than 100 people during the initial hour.” Even as a second landslide occurred, the police continued their mission. “When we were trying to shift residents of Chooralmala, we found survivors who were swept away in the floods and stuck on the walls of a school, said K.S. Ajesh, Station House Officer, Meppady station. “We rescued and shifted them to a nearby hospital in a vehicle,” he added. The Kerala Police Special Operation Group (SOG) took charge of the rescue operations, conducting the first-ever monkey rope operation in the disaster-hit area to rescue those trapped at Mundakkai. “The devastation after the landslides was the biggest challenge in my official life,” said Superintendent of Police, SOG, Taposh Basumatary. “The commandos and thunderbolts were trained for any kind of operation, but they were mainly deployed for Naxal operations. They were trained in advance mountaineering, high-altitude operations, urban and commando operations,” he said. “However, this time, they could utilise their calibre in rescue and relief operations,” he added. Women, elderly, and children were guided to safety across rivers and hills despite adverse weather conditions. The SOG constructed a bridge to reach the isolated Mundakkai area after the Chooralmala bridge collapsed, enabling rescuers to reach the affected region. “When we reached Mundakkai and Punchirimattom, there were nearly 500 people, including the injured. However, we were able to shift them to relief camps and hospitals using the temporary bridge,” said thunderbolt commando Rajan, the name has been changed owing to security reasons.

Additional police personnel were deployed in the disaster-hit areas, restricting unnecessary travel while ensuring swift passage for ambulances and essential services. The police have been involved in a multitude of tasks, including search operations, traffic control, patrol, inquests, body escort, data collection, secret surveillance, specialised investigations and security in relief camps, Mr. Naryanan said.

The police have been working tirelessly, round the clock, in the disaster-affected areas of Punchirimattom, Mundakkai, and Chooralmala in Wayanad, providing a beacon of hope to those affected by the devastating landslides. On the

18th consecutive day since the disaster struck, the police remain committed to their duty, undeterred by the scale of the tragedy. The district police could utilise the golden hours effectively to evacuate maximum number of people in the area, he said, adding, “We were able to rescue more than 100 people during the initial hour.” Even as a second landslide occurred, the police continued their mission. “When we were trying to shift residents of Chooralmala, we found survivors who were swept away in the floods and stuck on the walls of a school, said K.S. Ajesh, Station House Officer, Meppady station. “We rescued and shifted them to a nearby hospital in a vehicle,” he added.

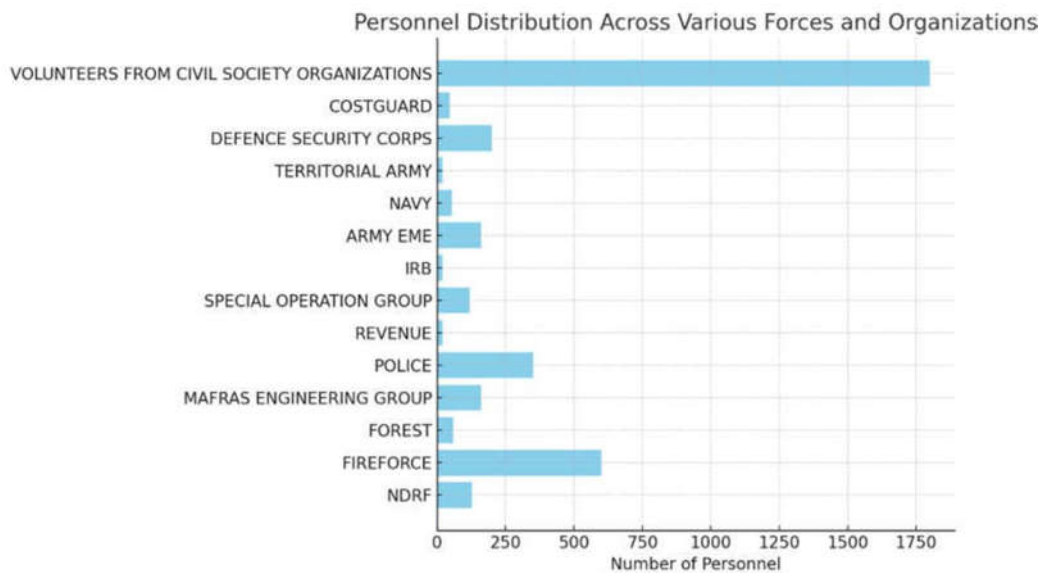
Additional police personnel were deployed in the disaster-hit areas, restricting unnecessary travel while ensuring swift passage for ambulances and essential services. The police have been involved in a multitude of tasks, including search operations, traffic control, patrol, inquests, body escort, data collection, secret surveillance, specialised investigations and security in relief camps, Mr. Naryanan said. Special control rooms have been set up in Meppadi and Chooralmala to coordinate activities, operating 24 hours a day. A dedicated police team worked tirelessly to expedite inquest proceedings, allowing families to receive the remains of their loved ones as quickly as possible. Additional Director General of Police

M.R. Ajithkumar coordinated the overall operations, with K. Sethuraman Inspector General of Police (North Zone), Deputy Inspector General (Kannur Range) Thomson Jose, Arun K. Pavithran, Commandant, KAP IV Battalion, and others leading the effort (The Hindu, August 2024).

Role played by civil society organizations and groups.

Civil society organizations/groups worked alongside the government to meet immediate and local needs during the disaster. They were key in providing food, medical supplies, and other essential items, often reaching remote areas that the government couldn't access easily. Their close connection with local communities helped them understand and address specific needs more effectively. In addition, immediate relief, those group also supported long-term recovery by offering emotional support, helping people rebuild their livelihoods, and promoting

community-based disaster preparedness. Their flexible and adaptive way of working allowed them to respond quickly to the changing challenges of the disaster. Here is a bar chart illustrating the distribution of personnel across various forces and organizations.



(Source: reporter live.com) From the chart, we can observe that, *Volunteers from Civil Society Organizations* account for the largest group, with over 1,800 personnel.

Fig. 5.3. Personnel Distribution Across Various Forces and Organizations

- Role of NGO: Realizing the indispensable need and importance of non-governmental organizations, under the National Disaster Management Act-2005, Inter Agency Groups have been formed under the district authority in all districts of Kerala, active non-governmental voluntary organizations and charities in the district includes groups and various religious and social organizations. The activities of civil society organizations gained more attention during the 2024 disaster compared to 2019. Additionally, the number of people participating in relief efforts was significantly higher in 2024. The role of civil society is evident across all phases of disaster management. Numerous entities actively participated in disaster management, including NGOs, Youth Organizations, Political parties,

Civil Society Intervention in Disaster Management: Analysis

individuals, business magnates, social media platform, women’s group and students’ groups. Wayanad is home to over 90 registered NGOs; however, many of these organizations remain inactive, and their collective impact and contributions during times of need have often been questioned, with observers noting a lack of substantial action or tangible results.

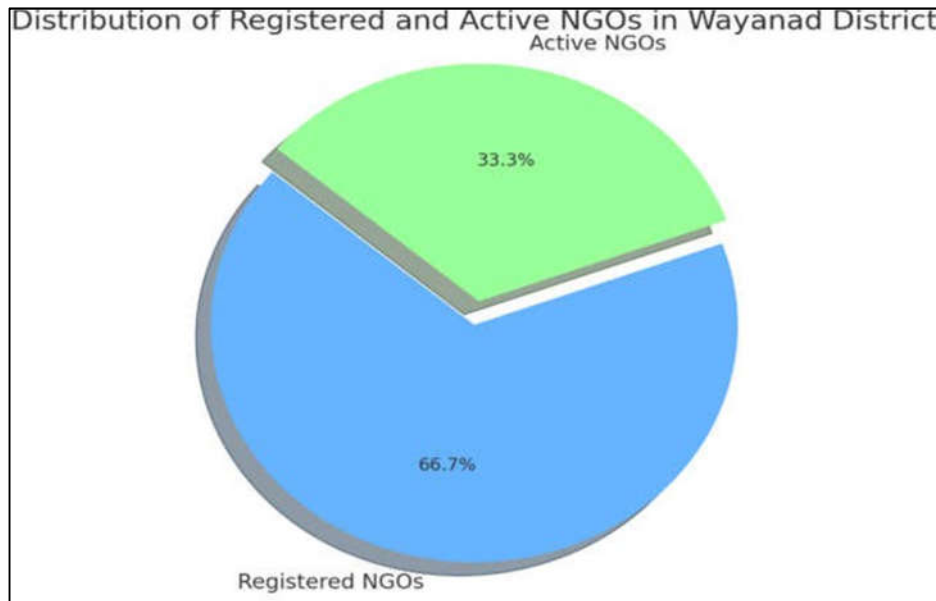


Fig. 5.4. NGOs in Wayanad District

Pie diagram represents the total number of NGOs registered in Wayanad district and those who are very active in their activities. More than 90 above registered NGOs operate in Wayanad (NGO4You, n.d.). Unfortunately, only 45 groups are very active in their activities.

The Inter Agency Group in Wayanad consists of 45 members, including 9 members in the executive committee. Organizations such as SEEDS India, Totem Resource, Shreyas Social Service Society, TUDI, Women's Voice Jvala, Neethivedi, SYS, and others are part of the group. Past experiences demonstrate that NGO has played a crucial role in influencing both short-term and long-term disaster management efforts.

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Sl No	Name of Organisation	Contact Person	Sector
1	Seeds India	Jinu Varghese	Shelter, Livelihood
2	Totem Resource	Basim	Education
3	Shreyas Social Service Center	Fr.Sebastian Edayath	Community Development
4	TUDI	Fr.Baby Chalil	Education
5	Womens Voice	Sulochana Ramakrishnan	Women and Children
6	Neethivedi	Adv.Sr.Jomol Joy	Education, Law
7	JVALA	CK Dineshan	Children, Women, Education
8	NICDP India	PC Joy	Community development
9	SYS Swanthanam	Muhammadali	Welfare
10	Helpage India	Pratheesh VV	Health
11	Doctors For You	Shameer	Health
12	Indian Red Cross Society	Adv.George	Health, HR
13	Pulse Emergency Team Kerala	Saleem	Emergency Response
14	Project Vision	Sabu	Shelter, Livelihood
15	PDJ Ashram	Vinu	Livelihood
16	Priyanikethan Charitable Society	Ajaykumar	Livelihood
17	Sehalayam	Anas	Livelihood, Education
18	IGSSS	Anjitha	Agriculture, Health, Livelihood
19	Wayanad Social Service Society	Jose	Community Development
20	MESSAGE	MP Navas	Education
21	Nenmeni SJVS	KC Biju	WASH
22	CH Rescue Team	Sidiq	Rescue
23	Turki Jeeven Raksha Samiti	Rafi	Rescue
24	Mathrubhoomi	Kamal	PRD
25	Arshabharath	Augustin	Agriculture, Livelihood
26	Don Bosco College	Fr.Sojan	Education
27	Jeevana	Domonic	Agriculture
28	PN Panicker Foundation	Arjun P	Shelter
29	Thanal Charitable Trust	Dr.Idris	Livelihood, Shelter
30	Oxfarm	Neha	Livelihood
31	Wayanad HAM's	Thambi	Communication
32	Seva Bharati	Subbarao	Social welfare
33	Humanity First	Hussain	Water Supply
34	Laboratory Association	Anil Mathew	Health
	Radio Mattoli	Fr.Bijo	Communication
35	MS Swaminathan Foundation	Suma TR	Agriculture, Livelihood
36	Nehru Yuva Kendra	Hari	HR, Education
37	Alumni Association, Veterinary College	Dr.Adarsh	Animal Husbandry
38	Malayali Samajam, Bangalore	Rejikumar	Shelter, Livelihood
39	ITC Care	Manu	Essential Materials
40	Sphere India	Kennedy	HR
41	HCL Foundation	Marshal	Finance
42	World Vision	Thomas	Livelihood
43	Ideal relief Centre	Ibrahim	Community Development
44	Tipper Association	Shani	Search and Rescue

Source: Wayanad District Collectorate Record

Fig. 5.5 Humanitarian Assistance: The Contribution of NGOs to Victims

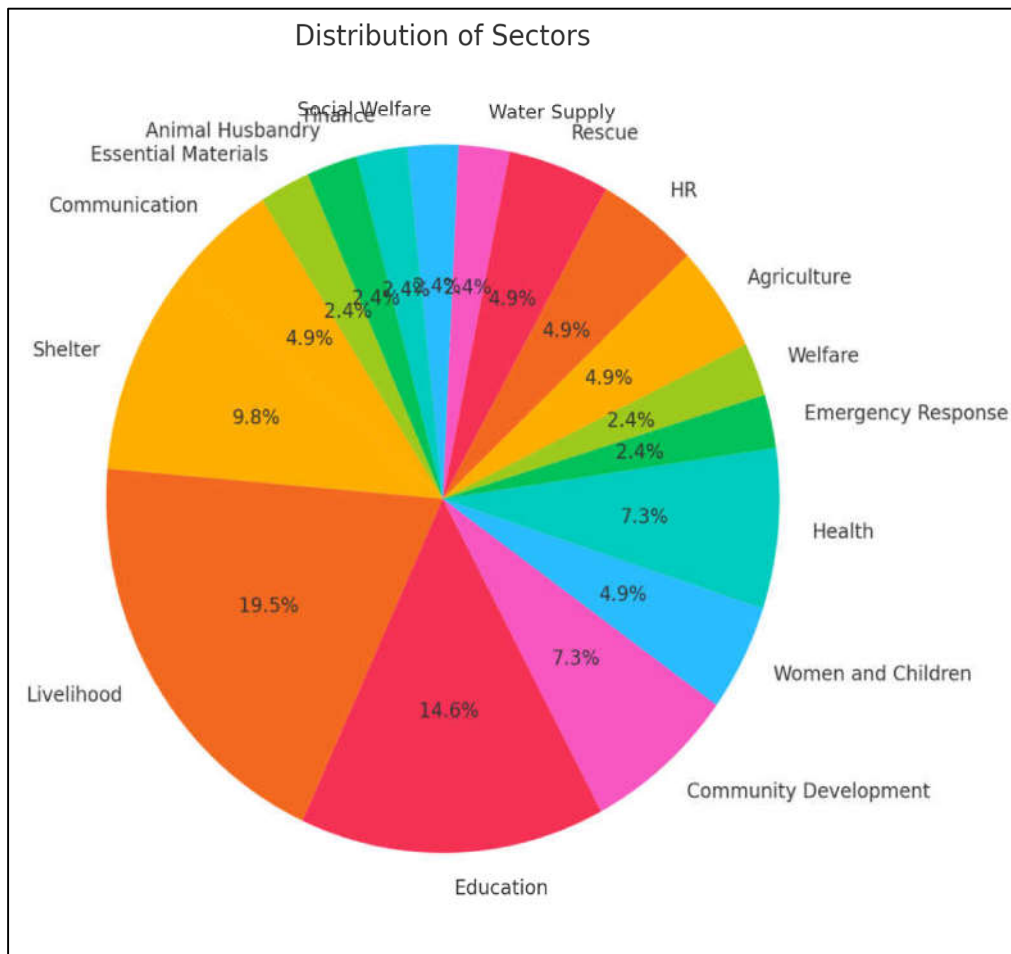


Fig. 5.6. Distribution of Sectors

Here's the pie chart showing the IAG distribution of sectors based on the table. Each slice represents the proportion of organizations associated with a specific sector in 2019 flashflood in Puthumala, at Meppadi Grama Panchayath. The sectoralisation of sectors shows that more emphasis should be provided to long-term rehabilitation activities, which include Education, Health, and Livelihood, that constitute a basis of a long-term recovery. Such sectors lead to the assurance of desired skills, economic sustainability as well as a healthy working population in the long-run through the reconstruction of communities. Other sectors such as Community Development and Agriculture lead to overall development and strength. On the contrary, such segments of the command center as Emergency Response, Rescue, and Shelter, although important during the crisis to fit urgent needs, are less effective in the long term. For effective In rehabilitation, it is important to have a

balanced approach regarding interventions to fix short-term emergencies and build a long-term recovery. A plot of land was found at Poothakkolly in Kottappadi village with an aim of building 52 houses to accommodate Puthumala disaster victims. Rehabilitation project HARSHAM was established on a seven acre land purchased as part of the Mathrubhumi Snehabhoomi scheme.

Supported by various groups, companies, voluntary organizations, and CSR initiatives, it became one of the major NGO-led projects in Wayanad. The project was completed with ₹4 lakhs allocated per house under the state's flood rehabilitation program. Facilities such as an Anganwadi, health center, community hall, drinking water scheme, waste management plant, roads, and basic infrastructure were included. ₹5 crore was allocated from MP Elamaram Kareem's asset development fund.



Fig. 5.7. The Landmark of Puthumala Rehabilitation Programme

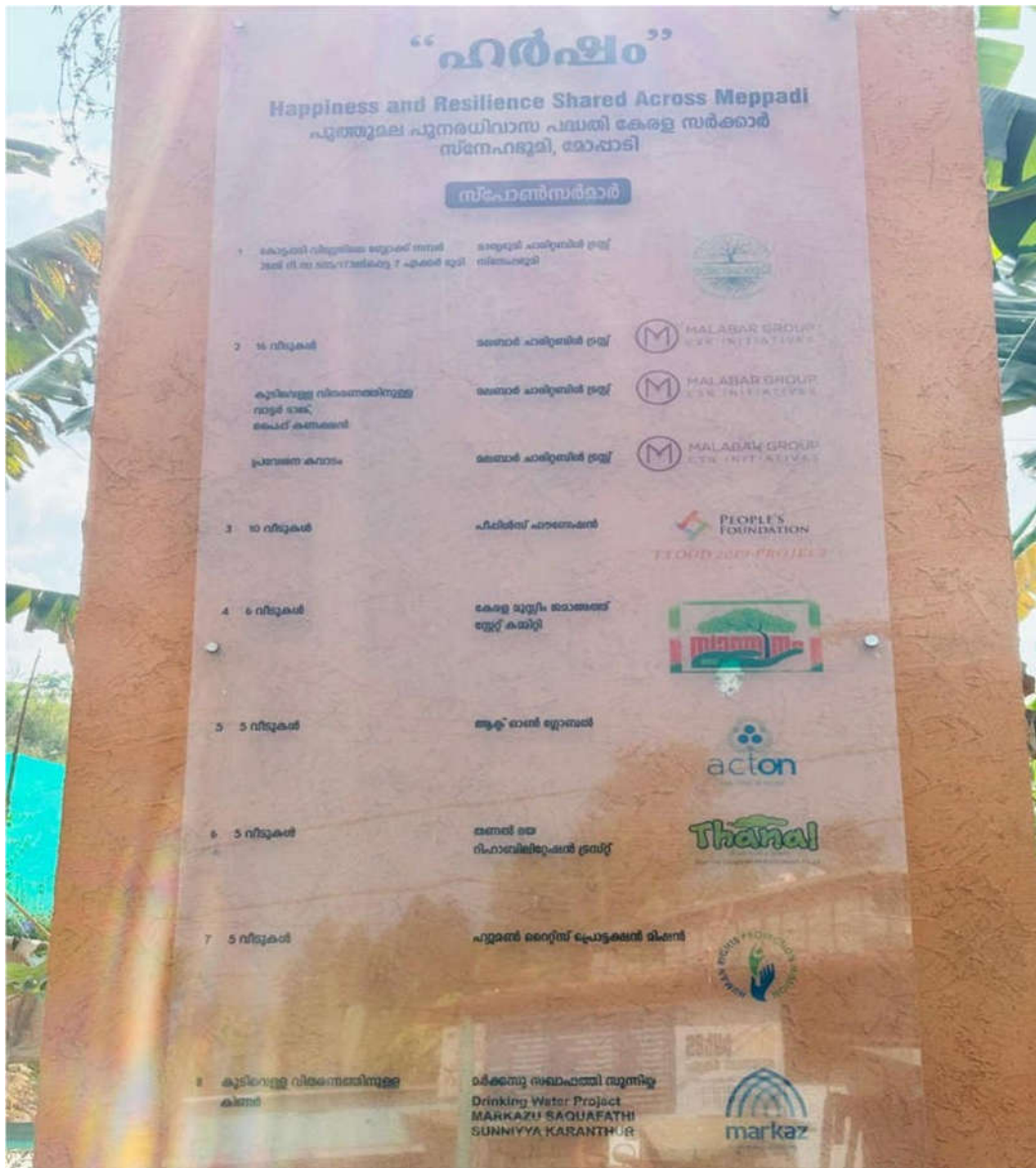


Fig. 5.8. The Mile Stone of Harsham Project

The board titled "Happiness and Resilience Shared Across Meppadi" highlights various community development projects undertaken in Meppadi, Kerala, primarily focusing on housing, drinking water, and disaster recovery, especially after the 2019 landslides. The initiatives are supported by multiple organizations, including Malabar Group CSR Initiatives, People's Foundation, Thanal, Acton, and Markazai-Saquafathi Sunniyya Karanthur. These efforts aim to enhance resilience and well-being in the region through collaborative actions addressing essential needs like housing and clean water.



Fig. 5.9. Some of the Houses Build by the Organizations

- The role played by social media: social media has proven to be a powerful tool in disaster management, particularly during events like the 2019 and 2024 landslides. During the 2019 Puthumala landslide, social media platforms were the first to alert the public about the disaster, enabling rapid awareness and response. The platforms were important in synchronizing any rescue mission through communication between the communities affected, emergency response and people who volunteered to assist. Geotags, hashtags, and real-time updates enabled the priority allocation of the affected resources since the worst-affected locations could be determined. Another outcome of social media was the mobilisation of community support where even just a post about the dire need of affected areas was put up, garnering fast responses of donations of food, medical supplies and other items. In addition to direct assistance, it offered a platform to deliver on disaster education and exchange safety precautions and prepare in the long-run. It also provided emotional support and feelings of solidarity among the affected of the disasters.
- Activity of different political parties: The role of political parties in the process of disaster management is very significant as political parties provide aids in the relief process, mobilization of resources, policy-formulation, etc. and mass consciousness. In times of disasters the parties will mobilize their members so as to flood the necessary supplies, temporary shelters and taking part in rehabilitation efforts. With their grass root networks, they can serve as a connection point between government and the affected communities so that those in need can receive the aid. Aid through political parties, the disaster management policies also might have greater power as these policies are supported in the legislatures and funds are provided in the infrastructural development and preparedness. They sensitize people on the danger of disasters and safety precautions such as conducting campaigns that educate the populace. Moreover, opposition parties have a major role in checking governments on their failure to respond to disasters, failure to execute their mandate and demand an action. Communities are enlisted to participate in

the process of disaster preparedness, response and recovery thereby voter turnover is increased through the use of their networks with political parties.

- **Media Involvement:** Mass media is the key factor in disaster management since it contributes to the spread of information, informing people and impacting their behavior both in the government and the populace. In times of disasters, the media leads to real-time information concerning the affected regions, hence quick response and rescue measures being put in place. They stream vital information, including evacuation centers, hotline numbers in times of emergency, and safe conduct, saving lives as a result. The mass media is also instrumental in its capacity to attract people to its cause by reporting the extent of the disaster which would in turn provide their resources and time, as well as financial donations to the cause. Moreover, investigative reporting will likely reveal loopholes in disaster planning and recovery, which keeps the authorities in check and help develop better policies.
- **Role played religious groups:** Religious groups are effectively involved in the management of the disaster as they utilise the moral authority of the groups, networks and other resources to offer the support in case of the occurrence of the disaster. Such groups tend to be swift in action in attempting to provide instant relief to communities affected by any disaster, including food, shelter, and medical care. Most of the religious establishments, such as temples, mosques, churches, and gurudwaras have their gates open as temporary shelters in times of disaster. They are founders in most communities and they are trusted by them making them good at reaching the vulnerable population especially in remote or underserved communities. Religious organizations are also major players in providing emotional psychological support whereby affected persons are being offered comfort and counsel to recover. They are frequently at the head of a prayer session and community events, helping to spread unity and optimism among the survivors. Moreover, these groups help in long term recovery, which

includes helping in reconstruction as well as providing volunteer services and promoting resilience and preparedness in their respective societies. Religious groups can influence values through their teachings, and most of these teachings encourage values such as compassion, cooperation, and environmental stewardship, all of which are essential to disaster risk reduction and sustainable development. Working together with the governments, NGOs, and other stakeholders, the religious groups also increase their contributions to the overall process and actively participate in providing immediate relief and sustainable disaster resilience in the long-run. Churches in Meppadi were very instrumental in offering a decent final farewell to the persons who lost their life in the recent tragedy. It was the Meppadi Mariamman Temple crematorium which incinerated 46 bodies with welfare organizations making all the arrangements free of charge to the relatives. Volunteers worked tirelessly to prepare the crematorium, arranging wood for pyres in adherence to traditional rituals. Similarly, the Meppadi Mahal Muslim Jamaat mosque has been instrumental in conducting burials, with 46 individuals laid to rest in the mosque's cemetery during the same period. Churches in Meppadi have also stepped forward, making funeral arrangements for the deceased.

Role of vehicles: A warrior in the face of disaster, Mathrubhumi newspaper on Aug 4 described off-road vehicle volunteers in its online portal. The reason for is their deep in the face of disaster. Uprooted logs, huge rocks, deep mud, relentless rain, and thick fog had significantly hampered rescue operations, making it nearly impossible to reach those in need. In such dire conditions, the precise intervention of a dedicated group of off-road vehicle volunteers became crucial. When rivers were too dangerous to cross and conventional methods failed to save trapped individuals, these volunteers stepped in. Their special off road cars helped them move through very hazardous terrain and tackle down the roadblocks, where normal rescue men could have given up. They were able to with their experience and will. reached the most inaccessible spots, enabling the safe evacuation of stranded victims and the delivery of essential aid, showcasing their pivotal role in the rescue efforts.

Offenders and members of KL10 Offroad Club such as Dr. Mohamed Fahed VP also helped ferry cadavers washed away by the pressure of flowing Chaliyar river, to Nilambur, against all odds. Niyas Almantri of Adventure club Cheruvadi was in awe of the unique time as their team also ferried materials to help the Army create a Bailey bridge in Wayanad. These clubs such as Pulpally Offroaders and Wayanad Jeepers pulled sea-to-air, evacuating trapped citizens, ferrying medical supplies, aiding in re-building efforts etc. displaying their never ceasing efforts and solidarity under the name of United Kerala Off-roaders.

Community Resilience: In the Meppadi, beautiful town in Wayanad district of Kerala in India, community resilience comes out during disasters, when the local volunteers act as the first responders. Such people (they are usually neighbors or members of the community) channel together to be able to offer immediate help be it by rescuing those still trapped, distribution of much needed supplies or even offering encouragement. The resilience found in Meppadi is due to its good social bond and spirit because of their collective past of living with the setbacks of nature in the form of landslides and floods. The community demonstrates the power of unity and preparedness as community local knowledge makes a difference when disaster strikes and this leads to recovery. The courage displayed by Azeez Kallumpuram and Shaija Baby in the disaster-stricken Wayanad landslides of 2024 was a testimonial of the resilience of the human race and human cooperation in the event of a disaster. An exemplary selfless act by a Gulf returnee, Azeez, came forward to volunteer to go through the gory process of cleaning and preparation of more than 100 dead bodies before they could be subjected to the inquest. In the meantime, Shaija was an ASHA worker, a former panchayat member; she also grieved but used her grief to do something, e.g. she managed to find victims, even including her relatives, very calmly and resolutely. These were assisted by even a larger network of volunteers and community organizations such as the blood donation team that Azeez was part of, the Blood Is Red Koottayma. The volunteering community groups followed the same trend by tirelessly assisting on the ground. In combination, this coalition of completely unexpected people demonstrated compassion and camaraderie unprecedented among themselves, and

instead of a story of helplessness and devastation, they made it one of survival and hope (Jose, 2024).

Methodology and Context of Data Analysis:

Insights from Affected Communities: - This section makes analysis of the first-hand data gathered by interviews of the general population exposed to the 2019 floods and landslide in Puthumala village in Meppadi Gramapanchayath localities in Wayanad district. The analysis closely relates with the research objectives of the study and seeks to provide understanding of the real operations of the Civil Society Organizations (CSOs) at different stages of a disaster management particularly in response and post-disaster rehabilitation. It also emphasizes the responsiveness of the CSO responses and the difficulties that were faced during empowering the affected society. The fact that the numbers of identified victims within the study area was relatively small made it possible to adopt a census survey method since this would provide complete representation. There were 102 participants of the study who were affected by the floodings and as such a holistic view of the effects of the disaster as well as the relief mechanisms used in recovery were come across. The method ever assisted in capturing context - particular experiences in details and made the data reliable. Through the following tools subjecting datacollection, was performed: observation, interview and unstructured questionnaire. The survey narrowed on the measurable factors that included social-demographic variables, the nature of losses, the nature of the help given, and the assessments of the respondents on CSO performance. To add flavor to this, semi-structured interviews also presented more in-depth narratives, perceptions and experiences that added value to the overall analysis. The site of fieldwork was selected in Poothakkolli village, Kappam Kolli and Puthoor Vayal regions of Meppadi Grama Panchayath, Wayanad District. The interviewees were survivors of the landslide that occurred in Puthumala in 2019 as it was one of the worst disasters of our time. Beneficiary lists were received through Meppadi Grama Panchayath and the respondents were chosen as former inhabitants of Puthumala through government and CSO-led rehabilitation activities. Socio-demographic definition of the respondents such as their age, gender, caste, education, occupation, level of income, and housing played a vital role in

contextualizing the experiences they have during a disaster response and recovery, and their contact with CSOs. The inclusion of all the 102 affected persons enabled the provision of the comprehensive knowledge and study of the devastating incidence on the various parts of the community, and the magnitude at which support was gathered by various participants.

Table 5.2

Gender-wise Distribution of Respondents

Male	40	39.22%
Female	62	60.78%
Total	102	100%

The majority of the respondents were female (60.78%). This is because many of the male members were away at work during the time of data collection.

Age Group of Respondents Table 5.3

Age-wise Distribution

Age Group	Frequency	Percentage
Below 30	19	18.63%
31-45	37	36.27%
46-60	28	27.45%
Above 60	18	17.65%
Total	102	100%

Community Composition of the respondents

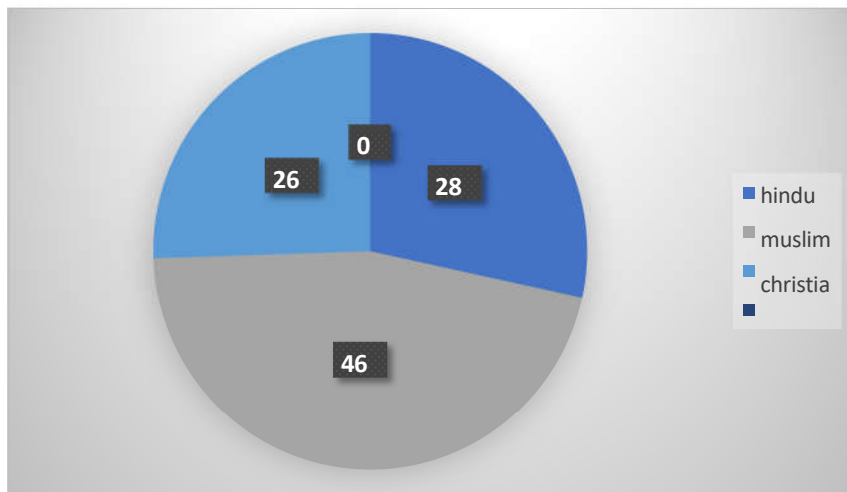


Fig. 5.10. Community Composition of the Respondents

The pie chart titled "Community Composition of Respondents" provides a visual representation of the religious background of the 102 disaster-affected individuals who participated in the study. From the chart, it is clear that the Muslim community forms the largest group, accounting for 46.1% of the total respondents. This is followed by Christians, who make up 28.4%, and Hindus, who represent 25.5% of the participants. It also reflects that all three major religious communities in the region were significantly impacted by the 2019 landslide event.

Educational background of the respondents

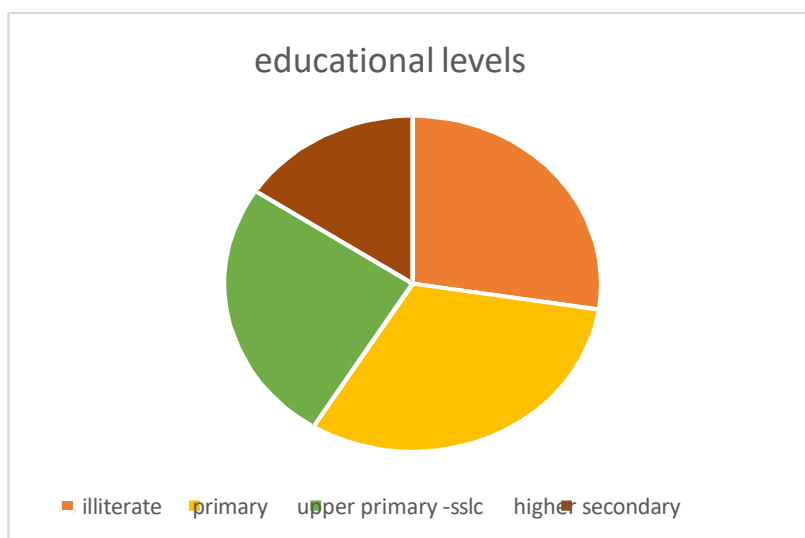


Fig. 5.11. Educational Background of the Respondents

Civil Society Intervention in Disaster Management: Analysis

The pie chart showing the educational background of the respondents highlights the overall literacy levels of the disaster-affected population. Among the 102 respondents, 28 individuals (27.45%) were illiterate, meaning they had not received any formal education. The largest group had completed primary education (1st to 4th standard), with 32 respondents (31.37%) falling into this category. This was followed by 26 individuals (25.49%) who had studied up to upper primary to SSLC (5th to 10th standard). A smaller portion, 16 respondents (15.69%), had completed higher secondary education or above.

This data suggests that a majority of the affected population had low levels of formal education. This may have influenced their access to information, ability to communicate with officials, and overall awareness of available support systems during and after the disaster. It also highlights the need for inclusive communication strategies and simplified processes during disaster response and rehabilitation, especially for communities with limited educational backgrounds.

Table 5.4

Monthly household income sources before disaster

Source of income	Daily wage	Agriculture	Small scale industry	Private firm	Govt employees	Others	Total
Number of people	40 (39.2%)	25 (24.5%)	16 (15.7%)	14 (13.7%)	6 (5.9%)	2 (2.00)	102

The table provides an overview of the primary sources of income for 102 households in a disaster-affected area, prior to the occurrence of the disaster. It categorizes income sources into six groups and indicates how many households depended on each source. The mini pickup driver, Manikandan (40), said, “I am a local driver in Chooralmala town, and my only break is during lunchtime. From 8 in the morning until 7 in the evening, I have plenty of work related to loading and unloading agricultural materials, pesticides, and other goods. But now, with most farming areas—such as cardamom plantations, coffee, banana cultivation, and

arecanut farms—vanished, I have a long break in my work. My wife used to work as a wage labourer on private farms, collecting coffee beans and cardamom, but now she too has no work.”

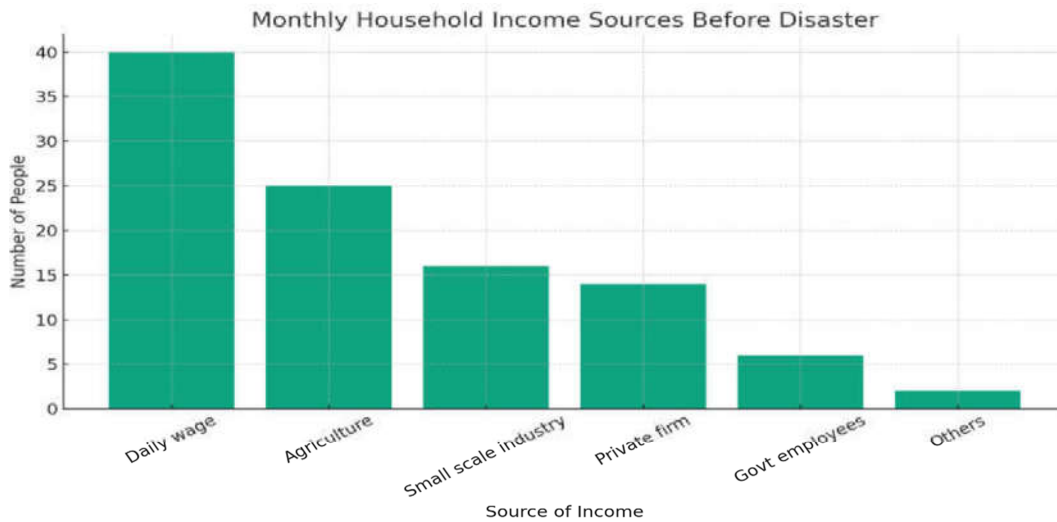


Fig. 5.12. Monthly Household Income Before Disaster

From the interactions, it was understood that men earned an average daily wage of around 1,000 rupees, while women earned about 500 rupees. However, after the disaster, severe unemployment disrupted their daily lives, placing many families in a state of uncertainty. This situation not only affected the directly impacted community but also created serious challenges for other workers who depended on them for their livelihoods.

The bar diagram shows the main sources of monthly household income for 102 people before the disaster. Among them, most individuals (40 people) earned their income through daily wage work. This was followed by 25 people depending on agriculture, 16 on small-scale industries, 14 working in private companies, 6 as government employees, and 2 under other sources. The data shows that a large number of families were depending on informal and less secure jobs for their living. After the disaster, many of these income sources were badly affected. Daily wage workers and farmers lost their work due to the destruction of roads, tools, and farmland. Small industries also faced losses because of damage to their equipment and buildings. Compared to others, government workers were less affected because

their jobs and salaries were more stable. This situation clearly shows the need for proper support and long-term plans to help people, especially those working in informal sectors, to recover and rebuild their livelihoods.

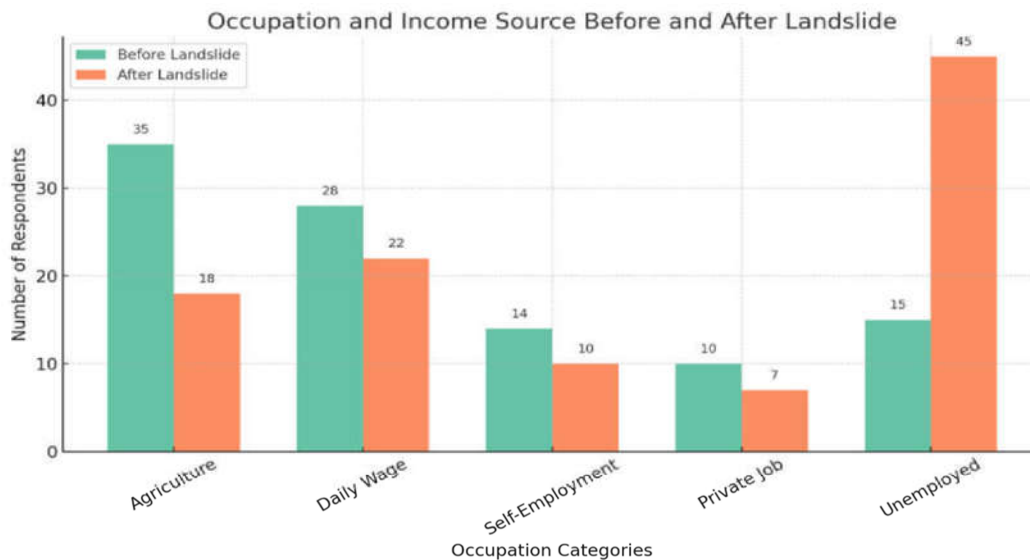


Fig. 5. 13. Occupation and Income Source Before and After Landslide

This diagram shows the changes in occupation and income sources of the affected people before and after the 2019 Puthumala landslide. Before the disaster, agriculture was the main source of income for 35 respondents, followed by daily wage labour (28), self-employment (14), private jobs (10), and unemployed (15). Following the landslide, unemployment sharply escalated to 45 people and this depicts the huge loss of livelihood brought about by the disaster. There was a decrease of people involved in agriculture (35-18) and a corresponding decrease was noted in the daily wages work, self employment and damage jobs. This transition indicates how critical the landslide was to income stability and employment in the relevant community. The abrupt and total loss of income was one of the most serious consequences of the congregation affected by the landslide of Puthumala in 2019. A lot of respondents reported that their families relied more on agriculture, day-to-day wage work and minor scale self-employment as their source of livelihood. However, the This wiped out much farming land through landslides hence they could not resume farming. Some participants reported that their farmlands were filled with deep mud, rocks and debris such that the land was rendered unproductive in future.

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In most of them, people lost their homes, livestock, crops and other domestic property; thus, they were not only deprived of shelter but also lacked any sort of regular income. The task was even harder when delayed or inadequate compensation and relief funds issued by the government made it more difficult. A lot of victims complained that the money they were being given as aid was lesser than the actual price of their land they lost or as the construction cost of their homes. Even some families were forced to enter temporary shelters or neighborhoods specially set-up by the government to rehabilitate them, and where their conditions were not always conducive to living. Respondents observed that relief measures were not commensurate with the intensity of economic losses that the respondents had suffered.

All these directly diminished all aspects of their lives. Families had difficulties in ensuring that they could afford basic necessities in the home, including purchasing foodstuffs, paying utility bills, and other basic living needs. Health care became unaffordable to most people particularly those with elderly member or families with chronic patients. Some of the respondents indicated that they had to delay or neglect the need to attend to hospitals because of shortage of funds. The other sector that was strongly hit was the education of children. It was also very hard to afford school fees, uniforms, textbooks, and transport by parents. Sometimes children had to quit school temporarily as the family was not able to afford their education in the terms of this crisis. Many families had to borrow money among relatives, neighbours or moneylenders thus upsetting them even more. The shocking state of mass unemployment and the emotional devastation at the loss of a home, and a livelihood induced a sense of powerlessness in the survivors.

Although civil society organizations provided support during the emergency phase, respondents still felt that long-term rehabilitation, especially economic recovery, required more attention from the government and other institutions. This overall picture highlights the deep impact of the disaster on the financial, social, and emotional well-being of

the affected community. The loss of land, livelihood, and property created a chain of difficulties that still continued for many families, even months and years after the disaster.

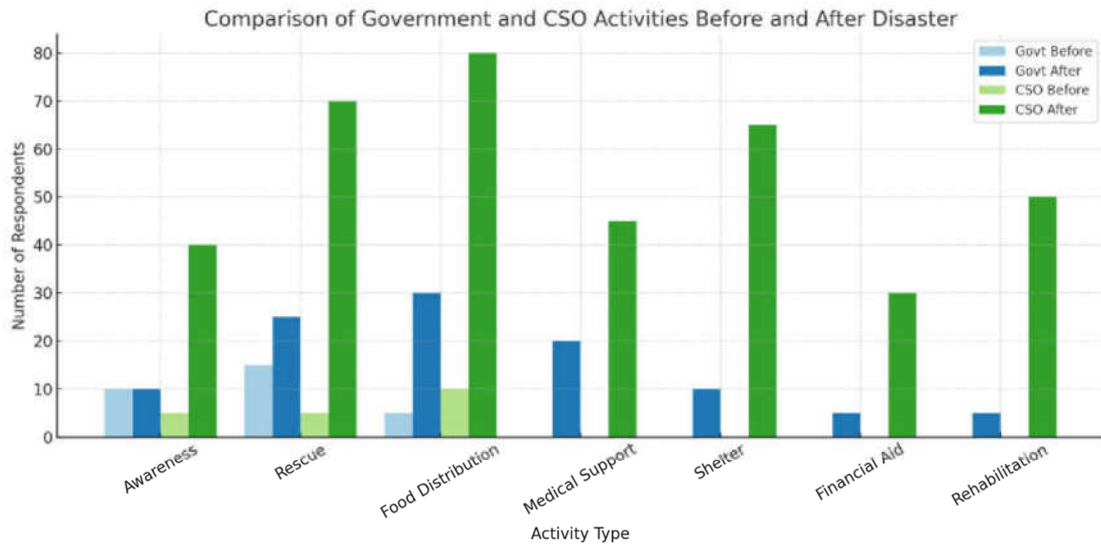


Fig. 5.14. Comparison of Government and CSO activities on Disaster

The bar graph shows comparative breakdown of activities carried out by the Government and Civil Society Organizations (CSOs) regarding the 2019 Puthumala landslide. The information is derived from answers gathered from 102 disaster-stricken people. The activities have been categorized in to two phases prior to the disaster and post disaster to show the change in level of participation. Every group of bars signifies a particular aspect of disaster response: awareness generation, rescue efforts, food supply, medical assistance, provision of shelters, financial assistance, and rehabilitation for the long term. It can be seen from the diagram that both the government and CSOs had very little involvement prior to the disaster, particularly in such preparedness activities as training and awareness programs. There were very few respondents who said they received any form of support to the disaster. But in the aftermath of the disaster, the trend of support immensely differed. CSOs were noted to have a much more prominent role in all categories of responses. They were most active in food items distribution, rescue work, provision of shelter, and rehabilitation. Their prompt presence, willingness to get involved, and quick mobilization enabled them to effectively respond in various sectors. While

available the data, the government assistance was seen comparatively low, particularly in shelter, material assistance and rehabilitation. Although some victims mentioned receiving assistance from government in the form of food and medicine, most felt that government assistance was unpunctual, limited and inadequate for their eventual recovery. The respondents were dissatisfied, particularly with no money being made to restore homes or receive livelihoods. This diagram thus aptly demonstrates the post disaster support imbalance, with CSOs playing a more proactive and visible role in assisting the affected populations and government interventions being minimal in key areas of recovery.

Experiences, Responses, and Recovery: A Ground-Level Assessment

After the 2019 Puthumala landslide, the process of identifying who should receive rehabilitation support was a crucial step in the work carried out by Civil Society Organizations (CSOs). Most organizations began their work using the official list of affected families prepared by the Meppadi Grama Panchayat. This ensured that families with major losses were reached first. However, based on my interactions during field visits, it became clear that several CSOs did not strictly follow this list. Some extended help to families who were partially affected or who refused to return to their original village out of fear and trauma, even though they were not officially listed as beneficiaries.

Many organizations followed their own methods, using local knowledge and personal judgments. For example, some groups preferred to help families with a "good social standing" — meaning they avoided giving support to individuals with a background of alcohol use or other negative labels. One of the respondents, Anpazhakan (age 59), told me that he was given a house by a Muslim community group in Kappamkolli village. He believed they selected him because he had a clean reputation and was known to be peaceful and respectful in the community.

Another respondent, Abdurahman Kallidumbal (42), said that the Malabar Gold Group supported his family by building a shelter and providing water facilities. Similarly, Kadheesha Mudavankad shared that she received her home through People's Foundation, as the government did not provide any help. These personal

stories highlight how CSOs stepped in when official aid systems failed to meet everyone's needs.

While most people appreciated the help, not all aspects of the selection process were perfect. Some residents pointed out that it wasn't always fair. Choosing families based on personal reputation could unintentionally leave out others who were equally affected but didn't fit those expectations. Since there were no formal rules for CSOs to follow, the system lacked consistency.

Yet, the rapidity and sensitivity of CSOs was especially remarkable. They could respond with speed in contrast to official systems. They entered the communities, considered the concerns of people and their real situation and made decisions. This assisted them in identifying families which have been slightly disregarded Those--particularly those who were afraid to go back to the disaster-affected zones even though their houses were not completely ruined. To select beneficiaries, CSOs also used local intelligence to determine the beneficiaries with support of official data and real-time observations. This increased the responsiveness of the rehabilitation process. But there was also the absence of standard guidelines whereby, we did not always have fairness. Had well-organized collaboration between the governmental organizations and CSOs been available, it might have enhanced the effectiveness and clarity of the rehabilitation work.

A Critical Analysis of the 2019 Puthumala Landslide Rehabilitation Programme

In the case of the landslide reported in the year 2019 in Puthumala, Wayanad, a huge loss was witnessed where hundreds of families were displaced along with their land, home and livelihood. As a follow up, a rehabilitation programme was initiated where the objective was to ensure safety, shelter and stability into the concerned population. The Civil Society Organizations (CSOs) and the government agencies became very active in these endeavours, particularly in the phase of emergency. Nevertheless, in consideration of the long-term implementation of the programme, there have appeared various issues and limitations. In this analysis, these challenges are discussed by centering on actual experiences that were

related by the affected families. Injustices in selection of the beneficiaries, lack of proper infrastructure, essential services, corruption, and failure to listen to the community voices are some of the important issues.

Problems in Beneficiary Selection

Beneficiary selection was one of the concerns in the Puthumala rehabilitation programme. Though an official list of the families affected by the landslide had been prepared by the Meppadi Grama Panchayat, the actual handed-out of aid was taken majorly through Civil Society Organizations (CSOs) who mediated. These CSOs usually employed their inner judgement and ad-hoc means to determine who was to be assisted. There are thousands of afflicted families who had lost everything which included homes, land and means of livelihoods and they all believed that they all should have been treated in the same capacity. The process of selection however, aimed at screening have been seen to be cheating and biased. In particular, families whose families were wealthier prior to the disaster, or had given extensive donations to religious institutions, were prioritized in others. Conversely, participants that possessed a family member with known alcohol consumption or a so-called antisocial past were not supported even in case of significant losses. This kind of conservations resulted in high levels of dissatisfaction and sense of injustice among the families that were affected. Victims felt that relief and rehabilitation should not be guided by their habits, wealth level, and social image before the disaster but instead quantified with the level of loss.

Quality and Suitability of the Houses

Poor quality and in-appropriateness of many houses given to the affected families was another major problem in the Puthumala rehabilitation programme. A small number of families got houses that were constructed well and safely, but many other families got unfinished houses, or houses built in a shoddy manner. In a few homes, the residents did not have the most important things like sufficient waste management processes, compound walls, and sturdy roofs. Such deficiencies impacted the everyday lives of the people and posed big questions as far as safety and stability were concerned- particularly during monsoon season. A key problem

was that the houses were not built based on the needs of individual families. For instance, elderly people and disabled family members found it difficult to live in homes with steep steps or poor ventilation. Additionally, the size and layout of the houses were uniform, regardless of the number of people in the household. Families with six members received the same facilities as those with only two. There were no provisions for a study room or prayer space, and the kitchens were often too small. Due to a lack of money and land ownership, most families could not afford to rebuild or expand their homes.

Personal experiences of victims highlight these issues clearly. Kalyani, wife of Anpazhakan (56), said, “Our kitchen has no facilities. It’s too small for two people to work at the same time, and we struggle to manage kitchen waste.” Another resident, Ramla (45), shared, “My daughter and her children don’t come to visit us because the house is too small. We have only two rooms. The rooms are so cramped that the bed touches the wall, and there’s no space to lie on the floor.”

When revisiting the resettled area in 2024, many families reported new problems. They showed the leakage from the roofs and damp walls and expressed their fear of facing the coming monsoon in such unsafe conditions. One resident said, “Before the disaster, we were living a middle-class life with dignity. Now, we are forced to beg the system for basic needs.”

“The roof of our house is leaking. Since the houses were constructed by various organizations, we cannot approach them regularly for our needs. It feels very shameful for us.” Said Sreejith (38). These voices clearly show that the rehabilitation programme did not adequately consider the long-term needs and dignity of the disaster-affected families.



Fig. 5.15 Photo taken during the data collection on 22 Feb 2023

In 2025, the same house was covered with a tarpaulin sheet to prevent leakage.

Lack of Basic Public Services

Even after being relocated to new houses, many families continued to face serious challenges due to the absence of essential public services. The rehabilitation sites were often located in remote areas, far from facilities such as Anganwadi centres, schools, hospitals, shops, public transport, and other government services. In many cases, residents had to travel at least 4 kilometers to access even the most basic needs.

The roads to these areas were steep and hilly, making it extremely difficult for elderly people, children, and those with health problems to travel on foot. There was no reliable public transportation, and private transport was expensive and not easily available.

Fathima (24), a young woman who lost her home in the disaster, shared her experience: *“We were very happy in Puthumala. Everything we needed—schools, shops, hospitals—was nearby and easy to reach. But now, there’s nothing here. Not even a small shop. If I need to buy a sanitary pad in an emergency, I have to walk a long distance.”*

This lack of basic infrastructure has deeply affected the daily lives and dignity of the relocated families. What was expected to be a safe and secure resettlement has instead created new hardships for already vulnerable people. It also raises important questions about whether long-term planning and community needs were properly considered in the rehabilitation process.



Fig. 5.16 Temporary School Building (Puthumala Govt LP School Building)

The Puthumala Government LP School, which was closed following the landslide disaster, has remained without a proper building for the past six years. At present, the school functions in a temporary shed, constructed with the support of voluntary organizations from Kashmirpaadi, under the leadership of the Meppadi Panchayat. The earlier promise to identify suitable land and construct a permanent building at the earliest has still not been fulfilled.

Weak Government Involvement and Lack of Transparency

Another key issue identified in the field was the weak involvement of government departments after the initial emergency relief phase. Many affected families reported that government support was delayed, irregular, or completely absent during the later stages of rehabilitation. Once the immediate rescue operations were over, officials were rarely available to address follow-up problems.

This lack of sustained government presence created a major gap, which was mostly filled by Civil Society Organizations (CSOs), religious institutions, and individual donors. These non-governmental actors took the lead in providing houses, food kits, and other essential materials. While their involvement was crucial, it also highlighted the failure of the state to take long-term responsibility for rehabilitation. Isolated livelihoods compensation was one of the most critical concerns that were voiced by the victims. Although the government raised a huge sum of money using Chief Ministers Distress Relief Fund (CMDRF), this could not satisfy most victims as they felt that they were not duly compensated. One of the victims, Shameera (40) said, : the government had whipped up huge sums in the name of our suffering through CMDRF. However, we were not given the right price over the loss of our means of livelihood. Our families are yet to cope. This is not merely a scenario of bad transparency in the distribution of funds but a more caustic problem of lying uncovered in terms of focusing on the long-term economic revival of the communities hit with disasters.

Corruption and Lack of Accountability

The other problem of serious concern that respondents had on the rehabilitation process is corruption and culpability in its rehabilitation process. Although Civil Society Organizations (CSOs) took the main role, quite a number of them transferred full authority in construction works to the local contractors. Some of these victims pointed fingers at such contractors claiming that they used substandard products and in some circumstances, they required bribes to carry out the process. These issues usually were ignored because of the lack of a proper monitoring or grievance redressal system. The CSOs and the contractors did not face any accountability and the victims did not have many legal authorities available. Due to this, families were helpless and not able to express their issues. There are even families who thought that their limited support suffered so far was subjected to be scrapped in the event they complained about it. This fear intimidated a lot of people to keep quiet even when they faced a certain housing issue like roof leaks, cracking walls or bad drainage systems. With this silence, corruption and negligence did not face any consequences. In actual sense, the victims were indirectly coerced to learn to fit in whatever they were given which may be irrespective of worthiness or appropriateness. Their absence of any voice within the system rendered them powerless thus could not demand their justice or correct rehabilitation.

Conclusion

Repetitive landslides in Wayanad; particularly in Puthumala, Mundakkai and Chooralmala are a quick pointer to the necessity of structurally sound policy intervention. Although these disasters were occasioned by heavy rainfall, they were worsened by man and activities like deforestation, unscientific building system and cropping practices that undermine soil stability. In the years gone by, these forms of activities have put the natural stability of the region at a disadvantage leading to increased landslides. It is necessary to prevent further damaging the environment by developing more strict management of the territory in terms of land occupation and construction process. Governments should also make scientific research part and parcel of disaster management planning as suggested by several scholars.

International and national research including the results of the Netherlands team. Integration of science and local realities allows developing more efficient disaster risk reduction strategies that potentially take into consideration both environmental and human aspects.

The disasters that occurred in 2019 fully demonstrated how the state disaster preparedness and response systems are weak. Disaster management in Kerala is usually treated as an adjunct responsibility of the service personnel in the Army, Police and Fire Force, rather than a contemplated, exclusive mechanism. This approach limits efficiency and delays timely intervention. It should have an efficient and expert structure of disaster management, which should be facilitated with skilled manpower and state-of-the-art early warning. Equally important is public awareness. Societies should be informed on the dangers they are exposed to and what they can do to avoid them. The tools of local communication, e.g. loudspeaker system in temples, mosques and churches, might be efficiently employed to deliver timely alerts. Such community-based interventions, coupled with modern technology will provide us with better and more reliable early warning that provides us with a warning system accessible to all segments of the population. Additional gaps were shown in the context of the 2019 disaster rehabilitation process. Delay and inconsistency in land allocation, unequal housing qualities and lack of basic amenities in resettlement locations were also witnessed. In many instances, contractors did not manage to maintain the standards of reconstruction in some projects prompting concerned families to utilize their resources in order to remodel their new houses. The management of waste was poor and proper areas to study as a child and proper structures to house women in some settlements were poor. There were also a lot of families who were only partially covered, together with those who inhabited dangerous buildings that were excluded in the rehabilitation schemes. This marginalization betrayed values of fairness and social equity that put the vulnerable groups of the population in a vulnerable position.

A better, more transparent and accountable system is required in order to enhance future disaster rehabilitation processes. Disaster funds should be made the

responsibility of a statutory body headed by District Collector or to another nominated senior officer and proper book of accounts to be kept concerning all income and out-expenditure. The decision-making structures must consist of representatives of all stakeholders especially affected persons of the disaster in order that needs and priorities of the community are observed fully. Rehabilitation planning should emphasize on constructing permanent and well equipped shelters with safe places instead of basing on the schools as temporary camps. It would not just help in dealing with emergencies but since education would not be affected it would also help in making the transition. Predictive mechanisms enhancing and better communication approaches also must be a priority. The determination of scientifically monitored rainfall, soils, and slope stabilization along with effective mediums of communication can provide answers to potentially occurring landslides, and proper coordination of channels of communication can prove promising in reaching out to the masses on time. The reconstruction works should be well monitored to make sure that the quality is achieved and that no family will incur further costs following the resettlement. All resettled communities should be given access to the necessary services (such as water, sanitation, education, and health), and the unique needs of women and children and the elderly have to be specifically taken into consideration.

Finally, as the experience of 2019 landslides demonstrates, it is not enough to approach disaster management reactive, it should be proactive, integrated, and community-based. Integration of scientific research, protection of environment, governance and engagement of communities can enable Wayanad to develop long term resilience to the natural hazards. A calculated strategy, which is not only responsive to the immediate challenges facing the victims of the disaster but also tackles the vulnerability factors will support both future mitigation of risks and sustainable recovery. In case such measures are addressed diligently and openly, the Wayanad population will be more prepared to deal with the adversities of natural catastrophes without sacrificing safety, dignity, and security.

CHAPTER 6

MAJOR FINDINGS AND CONCLUSIONS

Civil society organizations are groupings established to meet different social needs and challenges that the members of the population may find hard to pursue on their own because of structural constraints. The groups emerge when set in certain social contexts, and they can be shaped into small communities with shared aspirations. The existence of civil society can be found across varying socio-cultural settings and their goals are likely to change depending with the needs of the society. Early evolution of civil society in the Indian setting was witnessed in the 18 th and 19 th century through the reformist organizations like the Brahma Samaj and the Arya Samaj that largely featured in the popularization of education and fighting against social evils. This is one of the first examples of civil society in contemporary India and this is manifested in these organizations. With time, the civil society has taken a more notable role in helping tackle intricate problems in society. The 21 st century has a vibrant civil society that operates in various areas, such as education, public health, disaster, environmental sustainability, religious life and caste based politics. The growth and relevance of the civil society has been one of the more significant changes in the social process.

Nowadays, the civil society organizations not only participate in socio-political reform movement, but also in religious, humanitarian and administrative spheres. Civil society groups are group initiatives created to deal with different social issues and needs which individuals, as a result of structural constraints, may not be able to deal with. These groups emerge in the context of particular social environment and they are usually formed in the form of small communities with similar objectives. Civil society organizations can be found amid various socio cultural settings and their goals seem to change in accordance with the alterations in the requirements of the society. The civil society in the Indian context got some early outpourings in the form of reformist trends during the 18 th century and the 19 th century like the Brahma Samaj or the Arya Samaj that were prominent in the

ideas of promoting and providing education besides fighting social evils. These organizations represent some of the earliest manifestations of civil society in modern India. The civil society has over the years had a more significant role to play in the solving of complex social problems. The 21st century has seen an active role played by the civil society actors in various sectors such as education, public health, disaster management, environmental sustainability, religious affairs and caste-based politics. Expanding presence and influence of civil society has been one of the most striking changes in the process of social life in the contemporary context. Nowadays, the civil society organizations not only participate in socio-political reform movement, but also in religious, humanitarian and administrative spheres.

The role of the civil society in democratic developing nations is prominent and multi-dimensional. The third sector of the society is described as civil society organizations (CSOs), which exist separately both in the state and the market. They are pivotal actors towards the pursuit of participatory governance, accountability, the representation of the voiceless and social cohesion. When the state capacity is weak or uneven particularly in emerging democracies, the civil society is a vital ingredient to fill the gaps in service delivery as well as to meet the sudden social demands. Such a position stands out most especially when there is a crisis, like when there is a natural calamity. As an example, the Kerala floods of 2018 could not be complete without mentioning the crucial role of civil society organizations in short-term relief operations, and long-term rehabilitation process. Several local NGOs, religion organizations, volunteer students and citizens initiatives organized their resources, collaborated with the government structures and found remote locations where the governmental help did not reach yet or at all. A particular instance would be the participation of SEEDS India (Sustainable Environment and Ecological Development Society) which enabled a community based rebuilding of homes in Wayanad district where the disaster resilience and building practices were locally focused. These interventions concentrate on the ability of the civil society to have their contribution not only to the relief, but to sustainable rehabilitation and community empowerment.

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Civil society in developed democracies can therefore be seen as a pillar in social reconstruction within the developing nations. Its presence reinforces democratic values, enables It is also effective in providing community resilience, and links state operations with vulnerable population needs, particularly in disaster-prone areas. Nevertheless, bureaucracy, decision inertia, and procedures of rigid administration are prevalent as the obstacles of disaster response effectiveness and procure the need to consider civil society organizations as flexible and responsive agents to the varying needs of the community. Civil society actors in the post-disaster context organize resources, offer psychological and material assistance to disaster-affected groups, and lobby inclusive and equitable rehabilitation policies. As an example, during the Kerala flood of 2018, the CSOs not only mediated immediate relief dispersals, but were also instrumental in the process of livelihood restoration and reconstruction of the community. The role they have played in conduct of participatory planning, implementing capacity-building and augmenting local resilience highlights the changing and irreplaceable role of the civil society in the present day disaster governance. With this activity, civil society is able to strengthen democratic accountability besides supporting the sustainable and people-friendly recovery mechanisms. As the experience during the past disasters demonstrated that civil society plays a pivotal role in the response to disasters, and also in the absence of a local disaster response plan or local disaster management plans in any district of Kerala, the Kerala State Disaster Management Authority (KSDMA) in 2019 issued a directive so as to empower District Disaster Management Authorities (DDMAs) to formally open out to meet and invite the active non-governmental organizations (NGOs) and community-based organizations (CBOs) within their respective districts. This constituted a milestone in the direction of institutionalizing of collaboration between government mechanisms and civil society actors in the disaster governance.

Though the government departments might possess greater number of staff, their activities are sometimes limited by the chain of command and held back by bureaucracy. On the contrary, civil society organizations are highly flexible and cannot be committed to stringent government directives hence; they are able to

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address the disaster-stricken and affected communities in a prompt and innovative manner. In view of the inability of district authorities to handle disaster situations of complex nature, coordination mechanisms have been institutionalized in Kerala to enhance the disaster response. As was in accordance with the Indian Disaster Management Act of 2005, District Disaster Management Authorities (DDMAs) throughout Kerala launched: systematic interaction with non-governmental organizations (NGOs) by development of Inter-Agency Groups (IAGs). The IAG in Wayanad district has been critical in the post-flood interventions and emergency actions especially in locations like shelter needs, water and sanitation, search and rescue, and provision of essential supplies and livelihood restoration solutions. Despite having more than 90 NGOs in the district, those belonging to the IAG are the more active, as they have strong presence at the grass root level to assist community-based disaster management and reduction of risk. The re-formation of the District IAG and nine-member executive committee in June 2020 is an example of the efforts of coherent and consensus-based disaster governance. On the district level, disaster management came to operate in two parallel ways, one guided by the government officials, formal procedures, and the other more flexible, more community-based, and civil society driven. This synergy makes it possible to respond better and dynamically to repeat disasters, especially those related to floods, as one of the priority relationships between state agencies and NGOs in the construction of resistant communities needs.

Wayanad is a district that is susceptible to different hazards by virtue of its geographical landscapes and meteorological state. The district is located at the southern facet of the Deccan plateau as discussed under the District Disaster Management Plan and is part of the Western Ghats. It is characterized by its hilly contours forming ridges, valleys and hillocks and therefore ultra sensitive to landslides particularly during monsoons of the year. The report points out that landslides prone zones are mainly those at the borders of the district at Malappuram and Kozhikode. As can be seen in the plan past incidences of the Mundakkai landslide in 1984, Kappikkalam in 1992 and Valamthode in 2007, 2019 Puthumala and 2024 Mundakai- Chooralmala show the danger and frequency of occurrence of

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such catastrophic events. The Disaster Management Plan landslide map will be of assistance in indicating the areas that have greater risks and need particular attention particularly when any land development project is taking place. There are anthropogenic reasons that are contributing to the increased problem like, unscientific construction, deforestation, quarrying, road cutting and slope modification, in addition to the natural reasons. Such human activities loosen the structure of the soil and disrupt the environmental impact, subjecting the land to more landslides and floods. The report emphasizes that a particular focus should be exercised in places where changes in land use are being instituted. Apart from landslides, the district also faces frequent floods. Under the priorities of the plan, it is noted that the low-lying tribal colonies such as Noolpuzha, Nenmeni and Pulpally are affected regularly. The 2018 flood can be characterized as one of the most dangerous crises in the history of the district. Drought is another serious issue. There was a record low rainfall in 2016/17 according to the design, which resulted in the water shortage and climate change concerns. All of this, both natural and man made, cumulatively demonstrate that vulnerability of Wayanad had itself emerged as the primary triggering factor in the disasters of the district.

The disastrous landslide that hit Puthumala in Wayanad district in August 2019 was a catalyst that led to recognition of just how harsh the effects of natural disasters in the region can be. The landslide occurred due to heavy and persistent rain, and it filled up the small hamlet using tonnes of mud and debris killing people, uprooting families, destroying homes, roads, and farmlands. Being one of the most outright landslides in the recent history of Kerala, the Puthumala carnage revealed the far-reaching delicacy of all forest alluvion eminence such as Wayanad to both ecological and man-made disasters. It was also found that the disaster exposed the deficiencies in early warning, preparedness and the mechanism of coordinated response particularly in the tribal and remote regions. This incidence contributed to great extent toward selecting this topic to conduct research by indicating the need to study disaster management with local and community-based approach. The research is intended to identify the importance of civil society organizations, community and institutional measures in disaster management and disaster resilience building

focusing on Wayanad and by using the example of 2019 Puthumala landslide. One of the most recent major disasters in the landslide-prone district is the one that happened in August 2019 in the Kerala district of Wayanad at the village of Puthumala. The landslide was a result of heavy rainfall and resulted in taking of lives, burning of houses and families were displaced. This devastating disaster revealed the fragility of Wayanad along with its landscape, and the inadequacy of the official disaster management response protocols, particularly in inaccessible areas and those inhabited by tribal people. Puthumala disaster is one of the main points that made this topic to be taken as the research topic. It noted with urgency that disaster management in high-risk environments needs to consider how civil society organisations (CSOs) have a role to play.

The research topic on Civil Society Organisations and Disaster Management: A Study in Wayanad District, Kerala is important considering it looks at the contribution of Civil Society Organisations in the disaster response, relief and long-term recovery. According to the research, CSOs act in supporting the shortcomings created by the government agencies by offering timely assistance, resources mobilization, and interaction with the affected communities. The 2018 Kerala floods and the 2019 Puthumala landslide demonstrate that a collaborative attitude to disaster management is its value. This study can be useful as practice towards better coordination of CSOs and governmental organizations, as well as towards a more inclusive and stronger disaster management system. The role of civil society organizations (CSOs) in the management of disaster has been evolving in the recent times. Previously, they have principally been taking part in post-disaster relief. However, currently, they are taking a more proactive and significant involvement in disasters in all their phases such as planning, preparedness, and long-term repair. The shift indicates increased awareness of the need to develop community -based work and local involvement in disaster management. Civil society organizations are playing a role in remedying areas in which the government support is inconsiderable and there is a tendency to collaborate with the local populations. This paper has examined the manner in which such changes are occurring in Wayanad district and

implications that they hold with regards to making advances in disaster management at the local levels.

Considering the results of this study, it becomes clear that civil society organizations are instrumental in managing the disaster situation especially in the situation of Wayanad district. The study tends to prove the idea because CSOs respond more efficiently to local needs in the disciplinary event than governmental agencies do, as they are flexible and ready to act at the grassroots level. The work also verifies that the connection between the governmental and non-governmental organizations enhances the emergency management system as a whole. Nonetheless, rehabilitation programmes can have different quality and in some cases, either due to the absence of consistency or not being well-structured, an off-balance support or a sectarian result might occur. In general, the experiment testifies once again to such necessities as intense collaboration, improved planning, and integrative strategies to improve disaster response and long-term recovery. Civil society associations have played an instrumental role in fostering social change, accountability and addressing key gaps in the governance process, notably in the developing world in the 21st century. Civil society has become very inclusive in India as it cuts across different sections, be it health, education, environment and disaster management. They assume a special task when response efforts by states hit snags or are scarce, especially in recovery and rehabilitation over a long period. In these scenarios the civil society organizations intervene in order to facilitate timely assistance, voice the vulnerable community and make sure that recovery efforts are participatory and sustainable. They have been key partners in the modern-day disaster management system due to their success at relating well with locals, their nimble response, and the swift mobilization of resources.

The systems in India are not always completely developed and preferably adapted to the unique characteristics of the country in terms of climate and geographic differences. E.g.: most hilly areas such as Uttarakhand and Wayanad are very susceptible to landslides and flash floods yet early warning facilities and evacuation schemes are still poor there. On the same lines, the coastal states such as

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Odisha and West Bengal are frequently hit by cyclones but that does not mean preparedness as there are loopholes in infrastructure and awareness in rural settings. These challenges indicate that India should take steps in the direction of a more modern, localized disaster management. This involves making an investment in a better technology, enhancing coordination between central and state agencies, engaging the local communities in planning and building a stronger cooperation between the civil society organization. India, currently in the 21st century, must respond to the effects of climate change and the rising cases of natural catastrophes, and therefore the country must implement flexible nation-specific, inclusive, and region-specific disaster management strategies. The behavior of the government in a number of situations has been exemplified by being irresponsible by ensuring that disasters are dealt with effectively even when new technologies are at their disposal. Although there is now the use of modern technology like early warning systems, satellite mapping and the use of mobile-based alert services, etc. Once introduced, they do not always use them correctly or even hit the vulnerable communities in time. Government departments are not usually working in harmony, there may also be a leakage in equipment and slow decision-making. As an example, warning could not reach the remote villages within red alert times in flood prone regions or there could be a delay of providing relief because of bureaucracy. These loopholes indicate that new technology is not a sufficient condition because the responsible use, update regularly, trained staff, and local community outreach are needed. The efforts made without any allows the potential of technology to go under-utilized and those at risk are still bearing the brunt during the disaster.

It is essential for the state to give more attention to new research that can improve early warning systems and disaster prediction. Scientific studies and technological innovations can help in identifying disaster risks well in advance and reduce the damage caused by natural hazards. However, such research needs proper support from the government, including funding, infrastructure, and collaboration with academic and research institutions. The state should also encourage the study of disaster management as an academic discipline and promote training programs for professionals and local officials. At the same time, there is a need to review and

revise existing policies that may contribute to disaster risks—for example, unplanned construction in landslide-prone areas or the destruction of natural water channels. By supporting research, education, and policy reforms, the state can build a more effective and sustainable disaster management system suited to the realities of the Indian context.

In reflecting on the 2019 Wayanad floods, it becomes clear that ethics in disaster management is not just a theoretical concept, but a real and urgent concern that affects people's lives directly. Ethical practices are important to ensure that disaster response is fair, inclusive, and respects the dignity of all affected individuals. However, during my study, I observed several ethical gaps in the response to the 2019 disaster. While many government and non-government agencies were active, there were complaints about unequal distribution of relief materials and the exclusion of some remote tribal communities from early support. In certain areas, political influence seemed to play a role in deciding who received aid and who did not. This raises questions about the fairness and accountability of the entire system.

Although civil society organizations performed well in many places and filled the gaps left by the government, their efforts too were sometimes uncoordinated and lacked proper planning. I believe that ethical disaster management should go beyond emergency relief—it must include preparedness, equal access to resources, participation of local communities in decision-making, and transparency in all actions. The 2019 flood experience in Wayanad reminds us that without a strong ethical foundation, even well-intended efforts can fail to reach the most vulnerable. This calls for the development of clear ethical guidelines and stronger monitoring systems in disaster management, both by the state and civil society.

The study brings out many gaps in disaster management and rehabilitation, especially in the case of vulnerable communities in Wayanad. One of the major issues was the lack of a proper disaster warning system. People were not given enough time to prepare, which made the situation worse. In some cases, political

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factors delayed the communication of disaster warnings. After the disaster, those who lost agricultural land did not receive fair compensation or alternative land. This caused serious financial problems for farmers and daily wage workers. Many houses built as part of rehabilitation projects were poorly constructed. For example, within just five years, cracks appeared in the walls and roofs began leaking, showing the negligence of contractors and lack of government supervision.

Another major finding is the difficulty people faced in accessing basic services. For instance, many resettlement colonies were located far from health centers, schools, and even post offices. This made life especially difficult for women, children, and the elderly. Women faced serious challenges related to sanitation and privacy. One specific example is the disposal of sanitary pads and baby diapers. Although Haritha Karma Sena collected waste regularly, there were no proper systems or awareness for disposing of these items safely. As a result, women had to hide used sanitary pads in plastic covers or dispose of them in nearby bushes or streams, which was both unhygienic and embarrassing. Similarly, mothers had no safe place to dispose of their children's used diapers. These small but significant issues reflect how women's basic needs were overlooked in the planning of rehabilitation.

The study also found that some families received more aid than others, creating inequality. There were also issues like lack of study rooms for children, which affected their education. Farmers, in particular, were hit hard—not only did they lose their land, but they also didn't get support for starting a new livelihood. Many couldn't repay the loans they had taken before the disaster. These examples show that post-disaster rehabilitation failed to consider the day-to-day realities and needs of the people. Therefore, the study strongly recommends long-term, people-centered policies that ensure equality, proper compensation, livelihood support, and dignity especially for women and farmers.

RECOMMENDATIONS

From the analysis and insights gained through my research in Wayanad district, it becomes evident that disaster management strategies need to be more inclusive, sustainable, and responsive to the ecological and social realities of the region. One of the major areas that needs immediate attention is the protection of ecologically sensitive zones. These areas, being prone to landslides, flash floods, and soil erosion, require scientifically designed protection plans. These plans must be rooted in past environmental studies and disaster assessments and should be enforced through proper legal and institutional frameworks. Construction activities in these fragile ecosystems should be strictly regulated to prevent unscientific developments. Unauthorized land use, hill-cutting, and construction near riverbanks and steep slopes have significantly increased the risk of disasters. To counter this, ecologically critical zones must be declared as protected areas, thereby preventing future encroachments and unsustainable land use.

Moreover, commercial activities, especially in tourism-heavy areas, need strict monitoring. Over the years, the rapid increase of resorts, hotels, spas, and entertainment centres has placed additional pressure on the environment. A clear policy should be implemented to limit the number of such establishments within a one-kilometre radius of eco-sensitive zones. The goal should not be to halt development, but to ensure it occurs within a sustainable and scientifically justified framework. In addition to the environmental efforts, there is need to form a permanent statutory Disaster Management Commission of experienced personnel belonging to various disciplines. Such a commission is to review the impact of the disaster, handle the relief funds in a transparent manner and offer immediate and direct financial support to the victims, particularly within the recovery period. There should also be a fine housing control in sensitive ecologically susceptible areas. During my field visit, I have seen that the construction of big houses and poorly planned structures were causing pollution to the environment. One must enforce some regulations which limit the size and the kind of homes built in such zones especially nuclear families. Such norms should be put within a context of

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environmental consideration, availability of land, and sustainability. It is also significant to devise effective mechanisms of disaster forecasting. We should invest in scientific research and high-tech tools like the GIS mapping of areas, satellite-power forecasting, and early warning systems which should go a long way to improve our level of preparedness and mitigate the loss of life and property. They also require an effective and impartial disaster communication system. In my study, the delays and interference of the flow of information by the politics had negatively impacted the timely evacuation and safety of communities. An efficient communication system capable of reaching all homesteads-regardless of the level of political affiliations and domestications-can be a lifesaver to so many lives. Equitable and timely compensation is also a major concern. Adequate financial helps should be offered to farmers who have lost their lives and land in order to depend on them to recover as well as to restart their lives. In addition, transparent and fair resettlement policies are needed. There are cases of inequality where many displaced families are marginalized further due to unequal land distribution and poor quality of the house. To curb this, uniform resettlement strategies must be adopted with equality in terms of shelter and basic amenities and services like healthcare units, schools, post offices, Anaganawadi centres and so on.

Another serious problem is good sanitation and disposal of waste in resettlement colonies. Health hazards, primarily to children and elderly people, may be associated with inadequate waste disposal systems. The government should employ sanitary waste incinerators and create awareness on the safe way that waste can be disposed including disposal of diapers and medical waste. Social equity should be one of the key guiding options in any work of rehabilitation. Government agencies in addition to civil society organizations must be fair in how they distribute resources and must avoid favoring or ignoring a certain group. Farmers that have lost their lands should be given special attention. Support subsidies, alternative livelihood training, and financial assistance will see them move to new income-generating practices. There should also implantment of the debt relief scheme to farmers especially those who can not repay the farm loans because of disasters. This will lower economic distress and future marginalization of the communities in the

rural areas. It is with this that their community participation must be encouraged throughout the entire steps of disaster management including, planning, implementation, monitoring and evaluation. Local feedback and information is essential in making the rehabilitation efforts ever more effective and relevant. Planning needs to include gender-sensitive approaches as well. Unlike men and adults, women, children and other vulnerable populations have different needs during and after disasters, and these needs should be minded in the process of planning policies and interventions. Scholarships, better school and transport facilities within the affected areas should be used as means of extending education support directly to children in order to result in long-term recovery. Mental health support is equally essential. Many victims suffer silently from trauma and emotional stress. Thus, long-term psychotherapy time and a support group should be offered. Disaster-resilient infrastructure must be prioritized in all reconstruction activities. Inhabitable buildings and settlements have to be constructed to be disaster resistant. Moreover, good interaction should exist between government departments, civil society organizations, and the private stakeholders. A good teamwork will go a long way towards ensuring responses are timely and instances of duplication of efforts are minimized. Sustainable environmental rehabilitation should also be a priority. This encompasses environmental-friendly infrastructures, reforestation, well-planned drains and conservation of soil. On the agriculture side, there has to be training of farmers on climate resilient measures of farming. The increase of sustainable agricultural will also promote vulnerability to the future climate-induced disasters. The way to restore the trust is through transparency and accountability of rehabilitation projects. Some form of complaint redressal mechanism must also exist so that people can complain about corruption, delays or low quality output. Lastly, there is a pressing need for comprehensive policy reforms. These ought to amalgamate the participation by the community, scientific research and the long term vision of scores sustainable development. Finally, the recommendations made below should not only seek to mitigate disaster risk but also make recovery and reconstruction efforts socially fair and environmentally sustainable and grounded on the actual needs of the Wayanad people.

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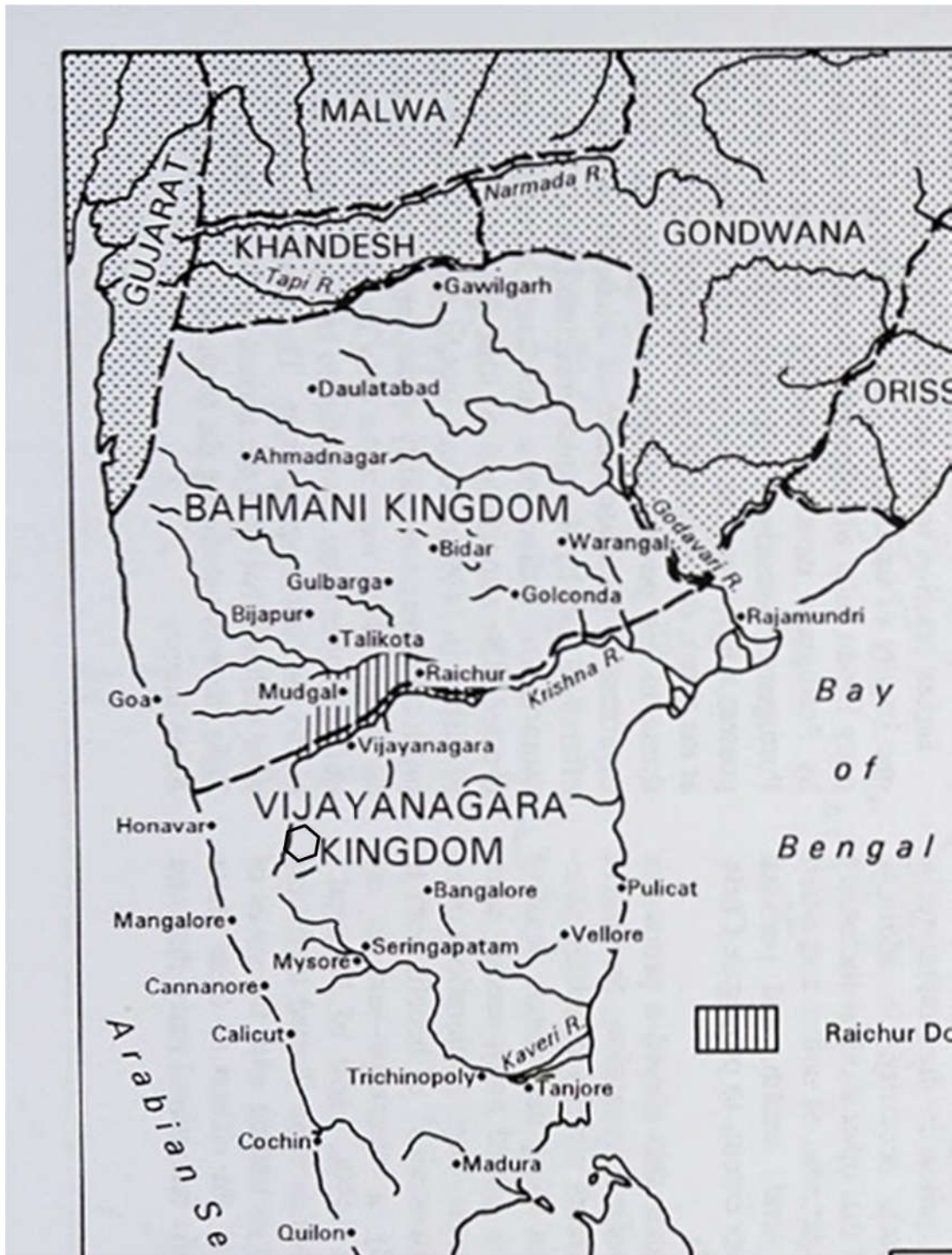
APPENDIX 1

Deccan Plateau



4.2 (source: Wikipedia)

APPENDIX 2



4.3 Vijayanagara Kingdom