

Disaster Management in the State of Kerala: Human Right and Policy Concerns in Post-Disaster Recovery

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1. Abstract

Kerala the southernmost state of India, is often struck by natural disasters such as Floods, Cyclones and Landslides. Although there are several policies set up to manage these disasters, delays in resettlement, compensation, health care access, and livelihood restoration are in dire need to be discussed on. This research paper looks into the policy loopholes and human rights violations which directly affect marginalized groups, women, and other displaced persons. Systemic disbursements failures of relief and rehabilitation in case of 2018 Kerala floods, Cyclone Ockhi, case studies bring out the discrepancies in the existing system. A rights-based approach to post-disaster recovery is essential and is better demonstrated by comparing the International best practices. Therefore, it is imperative to ensure that a right-based system for disaster response should be set up for a long-term disaster risk reduction.

1.2 Keywords

1. Disaster Management
2. Human Rights
3. Post-Disaster Recovery
4. Rehabilitation Policies
5. Policy Reforms

1.3 Statement of Problem

The state of Kerala in India is a disaster-prone state that frequently experiences a frenzy of Natural Disasters such as floods, cyclones and Landslides. These calamities leads to large – scale displacement of people, loss of livelihood, property and other socio-economic loses. The existing Disaster Management Act of 2005 and other state policies have formulated the disaster response system for this issues .But rehabilitation post-disasters still faces severe gaps, most notably in protecting human rights.

The principal concerns in the state are delayed compensation, inadequate housing for the displaced, disproportionate distribution of relief assistance, absence of gender-sensitive policy, and limited livelihood restoration programs. The post disaster recovery component of Kerala should be examined with respect to the human rights and policy issues. This paper evaluates the need of looking into the existing legal and institutional deficiencies and proposes a rights-based approach to foster a more equitable and sustainable disaster management system.

1.4 Research Objective

To analyse the human rights and policy concerns in Kerala's post-disaster reconstruction, particularly displacement, rehabilitation, compensation, and restoration of livelihoods, evaluate the sufficiency of the existing legal frameworks, and suggest a rights-based approach to disaster management.

1.5 Research Methodology

This study adopts a doctrinal and qualitative research design to analyse human rights issues and policy failures during Kerala's post-disaster reconstruction. It will be based on secondary data, including legal and policy analysis of the Disaster Management Act of 2005, Kerala's policy on disaster management, and global guidelines such as the Sendai Framework for Disaster Risk Reduction. The disaster recovery framework of Kerala and global best practices will be compared in order to draw out areas of improvement. Thus, this study aims to carry out

a broad, legally and policy analytical study of the existing gaps and promote a rights based perspective to fair and sustainable disaster management.

2. Introduction

Being a southern coastal state, Kerala is particularly vulnerable to different forms of natural disasters like floods, landslides, cyclones and coastal erosions. ¹The state's extensive coastline, a series of rivers, and hill country, combined with its unique geographical features, makes it highly vulnerable to geophysical and climatic disasters. ²Typically, during monsoon season from June to September, there is heavy rainfall and repeated floods and landslides mainly in Wayanad, Idukki, Alappuzha and Pathanamthitta districts. Further, coastal districts of Kerala face the threats of cyclones and rising sea levels, seriously endangering fishery and coastal communities.

Though Kerala has shown strong disaster response mechanisms, its post-disaster recovery process continues to face severe challenges in human rights. ³These include delayed compensation to the victims, absence of adequate housing for the affected, unequal distribution of relief benefits, and disruption of livelihoods. Tribal communities, fisherfolk, women, and economically weaker sections of society are generally the worst-affected sections by these

¹ N. N. V. Sudha Rani, A. N. V. Satyanarayana & Prasad Kumar Bhaskaran, *Coastal Vulnerability Assessment Studies over India: A Review*, 77 *Nat Hazards* 405 (2015), <http://link.springer.com/10.1007/s11069-015-1597-x> (last visited Mar 21, 2025).

² K.P. Sudheer et al., *From Science to Policy—Toward an Approach Linking Extreme Rainfall Events to Climate Resilience and Policy Development: A Case Study from Kerala, India*, 14 in *Developments in Environmental Science* 143 (2023), <https://linkinghub.elsevier.com/retrieve/pii/B9780443186400000158> (last visited Mar 21, 2025).

³ K.P. Sudheer et al., *From Science to Policy—Toward an Approach Linking Extreme Rainfall Events to Climate Resilience and Policy Development: A Case Study from Kerala, India*, 14 in *Developments in Environmental Science* 143 (2023), <https://linkinghub.elsevier.com/retrieve/pii/B9780443186400000158> (last visited Mar 22, 2025).

inefficiencies, and they have very little access to fundamental rights of housing, health, and rehabilitation. ⁴This is a serious concern regarding the lack of a rights based approach in Kerala's disaster management process that drives for equity, justice and sustainable recovery.

3. Understanding Disaster Management in Kerala

Kerala is vulnerable to natural disasters due to its climatic and geographical features, including intense monsoon rains, extensive coastline, and mountainous tracts. The state is frequently struck by floods, cyclones, and landslides, which cause extensive displacement, fatalities, and economic loss.

3.1. Floods

Floods are the most common and destructive natural disasters that occur in Kerala. ⁵Heavy monsoon rainfall within the state is often more than the drainage capacity, resulting in river overflows, flash floods, and urban flooding. ⁶Most of Kerala's rivers are located within the Western Ghats, and when combined with uncontrolled dam release and deforestation, all these factors significantly increase flood hazards.

The 2018 Kerala floods⁷ rank among the worst in the state's history, resulting from uncontrolled rainfalls and ineffective reservoir management. ⁸An estimated 500 lives were lost, more than a million were rendered homeless, and the estimated economic loss is approximately ₹40,000

⁴ Jacquleen Joseph, S. Mohammed Irshad & Allan Mathew Alex, Disaster Recovery and Structural Inequalities: A Case Study of Community Assertion for Justice, 66 *International Journal of Disaster Risk Reduction* 102555 (2021), <https://linkinghub.elsevier.com/retrieve/pii/S2212420921005161> (last visited Mar 22, 2025).

⁵ Neha Goel Tripathi & Nidhin Davis, Natural Hazards and Climate Change: Lessons and Experiences from Kerala Flood Disaster, in *Climate Change, Hazards and Adaptation Options* 563 (Walter Leal Filho et al. eds., 2020), http://link.springer.com/10.1007/978-3-030-37425-9_29 (last visited Mar 21, 2025).

⁶ Yomna P. Zainulabdeen & H. Nagaraj, Anthropogenic Impacts on Wetlands of Kerala, India: A Review of Literature, 26 *Journal of Geography, Environment and Earth Science International* 28 (2022), <https://journaljgeesi.com/index.php/JGEESI/article/view/610> (last visited Mar 22, 2025).

⁷ K.S.S. Parthasarathy et al., Assessing the Impact of 2018 Tropical Rainfall and the Consecutive Flood-Related Damages for the State of Kerala, India, in *Disaster Resilience and Sustainability* 379 (2021), <https://linkinghub.elsevier.com/retrieve/pii/B9780323851954000135> (last visited Mar 21, 2025).

⁸ Maneesha Vinodini Ramesh et al., Kerala Floods 2018: Causative Factors That Transformed Single Event to Multi-Hazard Disaster, in *Civil Engineering for Disaster Risk Reduction* 61 (Sreevalsa Kolathayar et al. eds., 2022), https://link.springer.com/10.1007/978-981-16-5312-4_5 (last visited Mar 22, 2025).

crore (\$5.6 billion). The floods revealed critical shortcomings in disaster preparedness, relief management, rehabilitation, and the need to address post-disaster recovery through a rights-based approach.

⁹Urban waterlogging is fast becoming a problem in urban cities like Kochi and Thiruvananthapuram, where illegal construction, lack of drainage facilities, and encroachment of marshy lands contribute to waterlogging during rainy seasons.

3.2 Cyclones

Though less often affected by cyclones than India's eastern coast, Kerala has seen increased cyclonic activity due to climate change and high sea temperatures. ¹⁰Cyclones significantly threaten coastal populations, producing storm surges, strong winds, and flooding that destroy homes, wreck fisheries, and displace vulnerable populations.

Cyclone Ockhi of 2017¹¹ formed one of the most destructive cyclones to strike the state of Kerala, resulting in the deaths of over 300 people, who were essentially fisherfolk, and leaving scores missing in the sea. The cyclone brought glaring gaps in early warning, disaster preparedness, and relief coordination into sharp relief, especially for ill-informed fishing folk about the hurricane approaching them.

⁹ Jayan P. R & Nithya Sathyanathan, Overview of Farming Practices in the Water-Logged Areas of Kerala, India, 3 International Journal of Agricultural and Biological Engineering 28 (2010), <https://ijabe.abepublishing.org/index.php/ijabe/article/view/333> (last visited Mar 22, 2025).

¹⁰ Komali Kantamaneni et al., Appraisal of Climate Change and Cyclone Trends in Indian Coastal States: A Systematic Approach towards Climate Action, 15 Arab J Geosci 814 (2022), <https://link.springer.com/10.1007/s12517-022-10076-8> (last visited Mar 22, 2025).

¹¹ Vineet Kumar Singh, M. K. Roxy & Medha Deshpande, The Unusual Long Track and Rapid Intensification of Very Severe Cyclone Ockhi, 119 Current Science 771 (2020), <https://www.jstor.org/stable/27138911> (last visited Mar 22, 2025).

3.3 Landslides

Landslides are a common calamity in the hill regions of ¹²Kerala, particularly in Wayanad, Idukki, and Malappuram. Excessive monsoon rains, deforestation, quarry operations, and soil erosion typically trigger landslides. Unregulated development in these landslide-susceptible areas has also increased the risk of human habitation.

The 2019¹³ and 2020 Wayanad and Idukki landslides led to a massive loss of life and properties, mainly affecting tribal settlements and economically weaker sections. Vast numbers of affected families experienced delayed rehabilitation and poor access to compensation, and there are fears about equitable disaster rehabilitation efforts.

The ¹⁴2024 Chooranmala landslide in Wayanad district, Kerala, was one of the worst landslides in recent times, caused by intense monsoon rain and unstable land. The disaster caused massive loss of life, damage to homes, and displacement of tribal and economically weaker communities. The landslide emphasized the increased vulnerability of hilly tracts to deforestation, uncontrolled construction, and soil erosion. The relief and rescue efforts were disrupted by terrain difficulties and weak road connectivity, leading to delays in relief for affected families. Survivors faced delayed compensation and substandard rehabilitation, questioning the issue of balanced disaster relief and rehabilitation. ¹⁵The Chooranmala landslide reaffirmed stringent land-use control, enhanced early warning systems, and a rights-based approach to disaster management in Kerala's landslide-prone areas.

¹²P. Ratheesh Mon, The Political Economy of Vulnerable Environment in the Age of Climate Change: A Kerala Experience, in *Climate Impacts on Sustainable Natural Resource Management* 268 (Pavan Kumar et al. eds., 1 ed. 2021), <https://onlinelibrary.wiley.com/doi/10.1002/9781119793403.ch13> (last visited Mar 22, 2025).

¹³ K. S. Sajinkumar & Oommen Thomas, *Landslide Atlas of Kerala* (2021), <https://pubs.geoscienceworld.org/geosocindia/books/book/2639/Landslide-Atlas-of-Kerala> (last visited Mar 22, 2025).

¹⁴ Sreevalsa Kolathayar, Varun Menon & Priyajit Kundu, Landslides and Debris Flow Triggered by the July 2024 Extreme Rainstorm in the Chooralmala Watershed in Wayanad, India, *22 Landslides* 967 (2025), <https://link.springer.com/10.1007/s10346-024-02443-1> (last visited Mar 22, 2025).

¹⁵ Ratan Das, Catastrophic Landslide in Wayanad District of Kerala, India on July 30, 2024: A Complex Interplay between Geology, Geomorphology, and Climate, *22 Landslides* 271 (2025), <https://link.springer.com/10.1007/s10346-024-02385-8> (last visited Mar 22, 2025).

3.4 Role of the Disaster Management Act, 2005

The Disaster Management Act 2005 is the central legislative Act that regulates disaster preparedness, mitigation, response, and recovery in India. ¹⁶The Act facilitated the establishment of the National Disaster Management Authority (NDMA) at the national level, and it was necessary to establish State Disaster Management Authorities (SDMAs) to enact disaster risk reduction policy at the state level.

As per this Act, the Kerala government has devised several plans to reduce the disaster risk and strengthen its response and readiness systems. Such plans include preparing State and District Disaster Management Plans, implementing early warning systems, and performing disaster readiness exercises and public awareness initiatives. All such plans aim to reduce the loss of lives and properties, leading to better leader response and resilience.

However, despite all these developments, there remain gaps in post-disaster rehabilitation, especially in housing, compensation, and livelihood recovery for low-income people. Most disaster-affected families experience delayed compensation, no sustainable resettlement, and inadequate livelihood assistance, which call for a rights-based approach to disaster recovery.

3.5 Role of Kerala State Disaster Management Authority (KSDMA)

¹⁷The Kerala State Disaster Management Authority (KSDMA) is tasked with planning, coordinating, and implementing disaster management operations in the state. It is also the organization tasked with observing weather patterns and providing early warnings, which

¹⁶ S. Amritanand, Sruthy Anand & A. R. Amrithesh, Dynamic and Time Critical Emergency Management for Level Three Disaster: A Case Study Analysis of Kerala Floods 2018, in Proceedings of the 21st International Conference on Distributed Computing and Networking 1 (2020), <https://dl.acm.org/doi/10.1145/3369740.3372755> (last visited Mar 22, 2025).

¹⁷ S.Mohammed Irshad, Civil Society, Community, Disaster and State Responses: A Critical Study on Ockhi Cyclone 2017, Floods in 2018 and 2019 in Kerala, India, 14 IDRiM Journal (2024), <https://www.idrimjournal.com/article/118869-civil-society-community-disaster-and-state-responses-a-critical-study-on-ockhi-cyclone-2017-floods-in-2018-and-2019-in-kerala-india> (last visited Mar 22, 2025).

greatly minimize the impact of natural disasters. ¹⁸KSDMA is also mandated to coordinate emergency response, facilitate timely relief distribution, and minimize casualties during disaster.

In addition to responding immediately, KSDMA is also engaged in state-level disaster policy formulation, technical support, and local disaster response team training. These are critical in enhancing community resilience and preparedness against the recurrence of disasters.

While KSDMA has improved in response to emergencies and early warning systems, disaster recovery is still problematic. Compensation held up late, resettlement planning problems, and the lack of a long-term rehabilitation plan still haunt disaster-affected communities. In order to overcome these issues, the focus needs to be shifted more towards equitable recovery measures so that all concerned populations, especially the vulnerable ones, are provided with adequate rehabilitation and assistance.

4. Human Rights Issues and Policy issues in Post-Disaster Rehabilitation

Post-disaster rehabilitation is not just the reconstruction of infrastructure but the protection of human rights. ¹⁹In Kerala, rehabilitation following a disaster is generally not designed to protect vulnerable communities' rights, resulting in prolonged socio-economic struggles. Major human rights issues involve the right to life and dignity, housing, health, livelihood, and protection from violence against women.

¹⁸ Kerala State Disaster Management Authority (KSDMA), <https://sdma.kerala.gov.in/> (last visited Mar 22, 2025).

¹⁹ Jacquleen Joseph, S. Mohammed Irshad & Allan Mathew Alex, Disaster Recovery and Structural Inequalities: A Case Study of Community Assertion for Justice, 66 International Journal of Disaster Risk Reduction 102555 (2021), <https://linkinghub.elsevier.com/retrieve/pii/S2212420921005161> (last visited Mar 22, 2025).

4.1. Right to Life and Dignity

The right to life under ²⁰Article 21 of the Indian Constitution is a guaranteed fundamental right to be safeguarded during and following disasters. ²¹However, poor evacuation plans have regularly resulted in preventable deaths. In most instances, insufficient early warnings and inadequate coordination have left individuals stranded in flood-hit regions without prompt rescue.

Secondly, emergency health care remains inadequate, especially in rural and tribal regions. In disasters, hospitals become inaccessible, putting critical care for injuries, waterborne illnesses, and trauma-associated conditions behind schedule. The lack of trained medical staff and emergency teams worsens the situation, infringing upon the right to life with dignity. Delayed disbursement of compensation packages is among the most acute problems in Kerala's post-disaster recovery. However, the government declares compensation packages in the wake of large-scale disasters, bureaucratic shortcomings, and red tape, which results in months or even years of delay in disbursing the funds. Also, discrimination in the distribution of relief is a common issue. Mismanagement and corruption further exacerbate the gap between policy and implementation, robbing many survivors of their due compensation and rehabilitation assistance.

4.2 Right to Housing and Rehabilitation

Displacement is also one of the worst impacts of natural disasters, with thousands of families losing their homes. Rehabilitative measures, however, do not attempt to offer sustainable housing solutions; instead, they leave the people living in temporary shelters for years. People

²⁰ Manaswi Semwal, Jurisprudential Analysis of the Right to Life in the Indian Constitution: Exploring the Essence, 18 J. Mountain Res. (2023), https://jmr.sharadpauri.org/papers/18_2_2023/35_JMR_2023_Dec_Semwal.pdf (last visited Nov 21, 2024).

²¹ Preet Lal et al., Evaluating the 2018 Extreme Flood Hazard Events in Kerala, India, 11 Remote Sensing Letters 436 (2020), <https://www.tandfonline.com/doi/full/10.1080/2150704X.2020.1730468> (last visited Nov 21, 2024).

displaced by these disasters often also have land rights issues, rendering resettlement much harder.

Additionally, ²²rehabilitation resource allocation is frequently unequal, prejudicing marginalized communities like tribal communities, and fisherfolk. Inadequate transparency and participation in resettlement policy have resulted in delays, corruption, and discrimination, denying many survivors their right to adequate and safe housing. Wayanad and Idukki district landslides have time and again displaced tribal settlements, who themselves live in vulnerable geographic locations.

Even after several landslides in recent times, government rehabilitation policies are still not satisfactory. ²³Most affected families were not given permanent residences, while those given one were resettled miles away from their ancestral lands, affecting their livelihood based on forests. Inadequate relief infrastructure and poor medical facilities added to their misery, and there are grave concerns regarding the absence of a rights-oriented approach to disaster rehabilitation for people.

4.3 Right to Health and Sanitation

Disaster-affected communities are often subjected to unsanitary living conditions within relief camps, denying them their right to health. ²⁴Overcrowding, sanitation, and insufficient clean drinking water enhance the threat of infectious illnesses like cholera and dengue. Women, children, and the elderly are most exposed to health risks from unsanitary conditions and insufficient medical services.

²² R. J. Barber, Protecting the Right to Housing in the Aftermath of Natural Disaster: Standards in International Human Rights Law, 20 *International Journal of Refugee Law* 432 (2008), <https://academic.oup.com/ijrl/article-lookup/doi/10.1093/ijrl/een024> (last visited Oct 9, 2024).

²³ The Rehabilitation and Resettlement Bill, 2007, PRS Legislative Research, <https://prsindia.org/billtrack/the-rehabilitation-and-resettlement-bill-2007> (last visited Nov. 25, 2024).

²⁴ Margot Hurlbert, Access and Allocation: Rights to Water, Sanitation and Hygiene, 20 *Int Environ Agreements* 339 (2020), <https://link.springer.com/10.1007/s10784-020-09484-6> (last visited Mar 22, 2025).

Mental health assistance is another vital need in post-disaster rehabilitation. Survivors experience post-traumatic stress disorder (PTSD), anxiety, and depression, but disaster response plans do not incorporate psychosocial assistance programs. Relief operations lack mental health workers, which denies survivors proper emotional or psychological support.

4.4 Right to Livelihood

Natural disasters cause irreparable damage to fishing and agricultural communities, which comprise a considerable percentage of Kerala's economy. Floods, cyclones, and landslides ruin crops, fishing gear, and livestock, rendering thousands no income. Rehabilitation programs hardly include long-term economic rehabilitation, leaving many to emigrate or accept low-income, unsustainable employment.

There are also ²⁵insufficient employment rehabilitation programs that are sustainable, especially for marginalized groups and daily wage labourers. Government compensation programs are usually delayed or inadequate in restoring livelihoods significantly. This produces long-term economic dependence and instability that keeps disaster survivors away from financial independence.

Among the deadliest cyclones, the one which hit Kerala's coast, ²⁶Cyclone Ockhi disproportionately affected fishing communities. Those who lost their boats and nets their livelihood were given less than sufficient amounts of money and most were thrown into severe economic hardship. Additionally, there were no alternatives to what the relief efforts provided to these people who now had no sustenance means. The inequities in relief and rehabilitation

²⁵ A. Senthamizh Kanal, Disaster Resilience through Right Based and Capability Perspectives of Ngos: A Case Study of 2004 Tsunami in Nagapatinam, 12 *ACADEMICIA: An International Multidisciplinary Research Journal* 365 (2022), <http://www.indianjournals.com/ijor.aspx?target=ijor:aca&volume=12&issue=1&article=063> (last visited Mar 22, 2025).

²⁶ Debadatta Swain, Tropical Cyclones and Coastal Vulnerability: Assessment and Mitigation, 103 in *Geospatial Technologies for Land and Water Resources Management* 587 (Ashish Pandey et al. eds., 2022), https://link.springer.com/10.1007/978-3-030-90479-1_30 (last visited Mar 22, 2025)

schemes in coastal communities, as exposed through neglect of the rights of fisherfolk in post disaster recovery, were a reality in Kerala.

4.5 Gender-Based Rights Violations

Women and girls are more vulnerable to violence and exploitation in the post-disaster environment.²⁷ Overcrowding and poorly regulated relief camps are usually without adequate security controls, which expose women to sexual harassment, trafficking, and domestic violence. The lack of gender-segregated shelters and sanitary facilities also puts their safety and dignity at risk.

Moreover, post-disaster policy tends not to embrace a gender-sensitive policy framework. Women, particularly widows, single mothers, and aged women, experience more economic disadvantages but get fewer relief benefits and livelihood opportunities. Their voices are also often left out in decision-making efforts, perpetuating institutional gender inequalities.

5. Recommendations for a Rights-Based Disaster Management Strategy

A rights based strategy of disaster management ensures that recovery in disaster times is inclusive, equitable, and sustainable. To enhance long term protection of human rights for marginalised and vulnerable segments of society, Kerala's post disaster rehabilitation policy needs to outlive short term relief and develop into a processes to achieve long term protection of the same. Legal and policy frameworks as well as institutional coordination and gender sensitive strategies are what are necessary to ensure that affected populations gain dignity, security and resilience.

²⁷ Swarna Bintay Kadir, Viewing Disaster Resilience through Gender Sensitive Lens: A Composite Indicator Based Assessment, 62 International Journal of Disaster Risk Reduction 102398 (2021), <https://linkinghub.elsevier.com/retrieve/pii/S2212420921003599> (last visited Nov 22, 2024).

5.1 Legal Reforms

Enhancing human rights provisions in disaster legislation is vital to providing displaced people, fisherfolk, tribal communities, and economically weaker sections equal access to relief and rehabilitation. The Disaster Management Act of 2005 needs to be amended with specific provisions safeguarding the right to housing, health, livelihood, and just compensation following disasters. Kerala also needs to incorporate stronger measures of accountability to avoid delays and discrimination in the delivery of aid.

In addition, disaster policies in Kerala need to be brought into line with other human rights based frameworks such as the Sendai Framework for Disaster Risk Reduction and the United Nations Guiding Principles on Internal Displacement. The guidelines focus on equity in the response to disaster, legal protection for displaced persons, and resilience construction measures over the long term. It will provide support for strengthening Kerala's disaster governance through compliance with international best practices and human rights protections.

5.2 Policy Reforms

The affected populations require quicker and more equitable access to rehabilitation programs and financial assistance in order to bridge relief gaps. The displaced families suffer a lot of vulnerability as bureaucratic processes keep them in limbo for long periods. Transparent and effective compensation schemes will ensure that all the victims will get timely support.

Moreover, it is necessary for Kerala to focus on long term livelihood and housing restoration programs rather than temporary camps and short term relief. Even years afterwards, relief activities have ceased, most disaster survivors live in insecure dwelling and unstable jobs. Putting together sustainable rehabilitation activities such as climate resilient housing schemes and vocational training schemes will return affected populations to their economic and social independent state.

5.3 Institutional Improvements

Coordination between the ²⁸State and the Central agencies in order to implement efficient Policies becomes essential in Effective disaster management. Overlap of authorities and lack of communication between agencies slows the recovery process. The creation of a centralized disaster task force for managing disasters can help in coordination, allocation of resources and accountability at all levels of governance.

Furthermore, people's involvement in the disaster recovery planning is significant to itself, making the policies inclusive and relevant for a given culture. Most especially, fishermen's groups, tribal groups, and local self-government bodies must provide critical and creative frames to proposals for resettlement, relief and policy reforms. Such policies are grounded in the specific group's vulnerabilities and are organically developed and decided with the community participation done at the local level.

5.4 International Best Practices

International disaster management models show that major gaps exist in the post disaster policies of Kerala to ensure that the recovery process is made more efficient, rights based and sustainable²⁹. Among the most successful models, Japan's community-based model and the United Nations' Sendai Framework provide valuable lessons in establishing a resilient disaster management system.

³⁰Japan is globally known to be a disaster recovery and preparedness leader because of its forward-looking policies, focus on community engagement, and investment in resilient

²⁸ Richard S.J Tol & Roda Verheyen, State Responsibility and Compensation for Climate Change Damages—a Legal and Economic Assessment, 32 Energy Policy 1109 (2004), <https://linkinghub.elsevier.com/retrieve/pii/S0301421503000752> (last visited Oct 9, 2024).

²⁹ Tarun Arora & Nibedita Bhattacharjee, Disaster Management Laws: International and Indian Perspectives, in International Handbook of Disaster Research 1 (Amita Singh ed., 2022), https://link.springer.com/10.1007/978-981-16-8800-3_130-1 (last visited Mar 22, 2025).

³⁰ Kristian Cedervall Lauta, Human Rights and Natural Disasters, in Research Handbook on Disasters and International Law (Susan C. Breau & Katja L.H. Samuel eds., 2016),

infrastructure. After the 2011 Great East Japan Earthquake and Tsunami, Japan had a three-phase recovery strategy focused on initial relief, economic rehabilitation, and long-term resilience-building. Relief of compensation and shelter minimised long term displacement while the delivery of economic recovery activities meant that vulnerable communities recovered their economic independence. Japan's strategy could be adopted by Kerala to facilitate an efficient disbursement of the monetary aid, placed emphasis on economic rehabilitation and include planning of changes that ensure long-term resilience in the recovery process.

More recently another critical framework is the ³¹Sendai Framework for Disaster Risk Reduction (SFDRR) 2015–2030, is one of the discounted and people and rights based approaches to disaster management. The Sendai Framework is distinct from the traditional disaster response model by its risk reduction, governance accountability and as its weave is long term ensuring community resilience. One of its fundamental tenets is ensuring that disaster policies provide immediate recovery and establish a basis for sustainable development by incorporating disaster risk management into urban planning and infrastructure schemes.

One of the essential gaps in Kerala's disaster policies is the absence of transparency and legal accountability in rehabilitation. By positioning Kerala's disaster policies in tandem with global best practices, especially Japan's proactive model of disaster management and the Sendai Framework's rights-based approach, the state can shift its post-disaster recovery system to a more inclusive, transparent, and resilient system.

<https://china.elgaronline.com/view/edcoll/9781784717391/9781784717391.00015.xml> (last visited Nov 22, 2024).

³¹ U.N. Office for Disaster Risk Reduction, Sendai Framework for Disaster Risk Reduction 2015–2030 (2015).

6. Conclusion

Floods, cyclones and landslides have regularly exposed Kerala's system to recover from the disaster to be lacklustre when compared with the susceptibility of the state to experience such calamities. This research paper brings forward several issues like delayed compensation, unequal distribution of resources, implementation of poor disaster regulations, and exclusion of vulnerable groups. Good examples are the 2018 Kerala floods, Cyclone Ockhi (2017) and Chooranmala landslide (2024) where persistent travails of displaced persons will continue to be there without policy and institutional change.

A rights oriented approach is missing among the disaster relief system of Kerala. Compensation and administrative delays are stalling the rehabilitation of affected families and they are being discriminated in relief and rehabilitation whilst economically weaker sections, fisherfolk, and tribal populations are being marginalized in relief and rehabilitation. In addition, short term relief measures often do not get adjusted to make way for sustained alternative in the form of resettlement housing and employment as many continue to remain displaced for years without resettlement assistance. Additionally, it is evident that women and children are more vulnerable during relief camps such as violence, exploitation and denial of essential medical services because there are no gender sensitive policies on disaster management.

In this regard, to overcome these challenges, Kerala needs to ensure a human rights based approach to the recovery from disasters. For dignity and justice of the affected population, there should be a binding legal framework that ensures the compensation, prompt resettlement and restoration of livelihood. If not, relief assistance would reach only those marginalised sections whose interests have been sacrificed pursuant to policies that are opaque, undemocratic and are not responsive to the interests of marginalised sections. Institutional coordination between state and central government agencies needs to be strengthened, community participation in

recovery planning needs to be enhanced, and Kerala's disaster policies must be aligned with global standards like the Sendai Framework to make the disaster management system more resilient.

Therefore, one such multi-dimensional policy should be addressed based on the legal responsibility, the balancing of resources, the continued rehabilitation efforts in order to make Kerala's disaster recovery policies resilient. Gaps in post disaster recovery will only be filled and dignity will be preserved for affected populations when human rights principles are embedded in disaster management. Kerala can ensure timely relief, sustainable resettlement, and economic rehabilitation and make its disaster response system a resilience, inclusion, and justice model.