

Women's Resilience in Ecological Crisis: An Ecofeminist Perspective on Women Affected by the Lapindo Mudflow

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Abstract

Climate change and ecological disasters have significant impacts on women's lives, particularly in the context of the Lapindo mudflow. This study aims to uncover the resilience experiences of women affected by the disaster, their strategies in coping with the crisis, and the role of gender in public policy. The research employs a qualitative approach with an ecofeminist perspective to highlight the social, economic, health, environmental, cultural, and spiritual experiences of affected women. Analysis was conducted to examine the resilience strategies implemented, ranging from strengthening social solidarity, engaging in microeconomic activities, maintaining health, managing the environment, to practicing cultural and spiritual traditions. The findings indicate that: (1) women face complex disaster impacts, including loss of homes, forced relocation, social dislocation, difficulties in accessing public services, psychosocial pressures, and disruption of education and traditional practices; (2) women's resilience strategies encompass social, economic, health, environmental, as well as cultural and spiritual aspects; (3) the study also found gender exclusion in decision-making and village deliberations, resulting in women's voices often being marginalized; (4) the study recommends full participation of women in recovery processes and disaster policy formulation to ensure greater equity and inclusivity.

Keywords: women's resilience, ecofeminism, Lapindo mudflow, climate change, and sustainable livelihood

Abstrak

Perubahan iklim dan bencana ekologis memiliki dampak signifikan terhadap kehidupan perempuan, khususnya dalam konteks Lumpur Lapindo. Tujuan penelitian ini adalah untuk mengungkap pengalaman resiliensi perempuan terdampak bencana dan bagaimana strategi mereka dalam menghadapi krisis, serta peran gender dalam kebijakan publik. Penelitian ini menggunakan pendekatan kualitatif dengan perspektif ekofeminisme untuk menyoroti pengalaman sosial, ekonomi, kesehatan, lingkungan, budaya, dan spiritual perempuan terdampak. Analisis dilakukan untuk melihat strategi resiliensi yang diterapkan, mulai dari penguatan solidaritas sosial, usaha ekonomi mikro, pemeliharaan kesehatan, pengelolaan lingkungan, hingga praktik budaya dan spiritual. Hasil penelitian menunjukkan bahwa: (1) perempuan menghadapi dampak bencana yang kompleks, mulai dari kehilangan rumah, relokasi paksa, dislokasi sosial, kesulitan akses layanan publik, tekanan psikososial, hingga terganggunya pendidikan dan praktik adat, (2) strategi resiliensi perempuan mencakup aspek sosial, ekonomi, kesehatan, lingkungan, serta budaya dan spiritual., (3) penelitian juga menemukan adanya eksklusi gender dalam pengambilan keputusan dan musyawarah desa, sehingga suara perempuan kerap dimarginalkan, (4) penelitian merekomendasikan pelibatan perempuan secara penuh dalam proses pemulihan dan penyusunan kebijakan bencana agar lebih adil dan inklusif.

Kata Kunci: resiliensi perempuan, ekofeminisme, Lumpur Lapindo, perubahan iklim, keberlanjutan hidup

INTRODUCTION

Indonesia is among the countries experiencing significant climate-related impacts, particularly hydrometeorological disasters such as flash floods, landslides, and prolonged drought.¹ These climate-induced events not only lead to crop failure and declining fish stocks but also contribute to rising poverty levels, especially in coastal and rural communities.² Climate change and other ecological crises have thus become global concerns that affect many dimensions of human life, including natural disasters, water scarcity, and environmental degradation. The most substantial burdens tend to fall on vulnerable groups. Among these groups, women are particularly susceptible to the adverse impacts of natural disasters due to their reliance on threatened natural resources and their limited access to the resources needed to adapt.³

The Lapindo mudflow disaster in Sidoarjo, East Java, stands as a prominent example of an ecological catastrophe with long-term consequences, leaving behind numerous social, economic, and environmental challenges that continue to shape community life. Since its onset in 2006, the

¹ Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2021: The Physical Science Basis, Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2021, <https://www.ipcc.ch/report/ar6/wg1/>

² Badan Meteorologi, Klimatologi, dan Geofisika (BMKG), *Laporan Tahunan BMKG 2020*, diakses dari <https://ppid.bmkg.go.id/transparansi-kinerja>.

³ Mustabsyrotul Ummah Mustofa, M. Diva Kafila Raudya, Jian Ayume Sundul Langit, dan Pupoes Biworo, "Resiliensi Perempuan dalam Konflik Lingkungan di Indonesia," *Journal of Political Issues* 5, no. 1 (Juli 2023): 54–64.

Lapindo mudflow has resulted in the loss of thousands of hectares of residential areas and farmland, the destruction of infrastructure, and the disappearance of local livelihoods. While the residents around the Lapindo mudflow have faced similar difficulties, certain segments of the community have shown greater resilience in the process of socio-economic recovery. Notably, women have emerged as a particularly resilient group in navigating the challenges posed by the disaster. Johnson emphasizes that women often serve as key agents of change in confronting ecological challenges, demonstrating their ability to adapt and to strengthen community resilience.⁴ In the Lapindo disaster context, women play a vital role in rebuilding community resilience in the post-disaster period, gaining social and economic empowerment, and expanding their influence in decision-making processes through their management of local resources and traditional ecological knowledge.

An inclusive and gender-responsive approach is essential in post-disaster recovery efforts. By integrating traditional ecological knowledge, women not only strengthen environmental management practices but also gain increased social status, economic independence, and greater influence in decision-making processes.⁵ Several studies demonstrate that women possess strong adaptive capacities and often act as agents of change in responding to climate change.⁶ The resilience of women in confronting climate-related challenges—socially, economically, and environmentally—has become an increasingly central topic within ecofeminist scholarship.

According to Mies and Shiva, as cited by Baidya, ecofeminism examines the interconnections between gender injustice and environmental degradation, focusing on how women, especially those in marginalized regions, navigate and manage the ecological challenges they face.⁷ Understanding women's resilience is therefore crucial for analyzing how they survive and adapt within environmental crises. Women's climate resilience reflects not only individual endurance but also the broader social and economic resilience of their communities. Drawing again on Mies and Shiva as interpreted by Baidya, the ecofeminist perspective offers an analytical framework for understanding the relationship between women and the environment by highlighting how gender inequality contributes to women's heightened vulnerability to ecological disasters.⁸ Ecofeminism

⁴ Olivia Johnson, *A Woman's Place is in the Resistance: An Ecofeminist Response to Climate Change* (Master's thesis, Fordham University, 2022).

⁵ Patatri Baidya, "Women as Ecofeminist Leaders: Transforming Forest Management and Empowerment in West Bengal," *Ecofeminism and Climate Change* 5, no. 2 (2024): 123–27,

⁶ Henny Rosalinda, Rany Hadi, dan Amalia Nur Andini, "The Ecofeminist Perspective on the Impact of Climate Change on Women's Health: Study Case of Coastal Women in Sendang Biru Hamlet, Indonesia," *Jurnal Ilmiah Hubungan Internasional* 1, no. 1 (2024): 32–46.

⁷ Ibid.

⁸ Baidya, "Women as Ecofeminist Leaders."

underscores that the exploitation of the environment often parallels the exploitation of women, who frequently face structural limitations in participating in decision-making processes regarding natural resources and environmental governance.

Previous research indicates that women play vital roles in strengthening environmental resilience through sustainable practices, such as community-based resource management and advocacy for more inclusive environmental policies. However, women's participation in decision-making remains constrained by patriarchal social norms and economic structures. Research conducted by Hendrastiti et al.,⁹ Rosalinda et al.,¹⁰ and Hikmah¹¹ demonstrates that women farmers possess the capacity to build community networks, manage household resources efficiently, and transform their lived experiences into forms of social strength. Nevertheless, women continue to face structural barriers that render them doubly vulnerable—both as household managers and as individuals situated within patriarchal social systems. Meanwhile, studies by Mustofa¹² and Harahap¹³ reveal how environmental conflicts often exacerbate gender inequalities. During ecological emergencies, women are more likely to experience loss of livelihood, exclusion from public deliberation, and increased exposure to gender-based violence. These studies collectively underscore the importance of acknowledging women's experiences within the formulation of climate mitigation and adaptation policies.

Several case studies have also shown that women in coastal and agricultural regions are profoundly affected by climate change, yet they exhibit remarkable resilience in confronting its consequences.¹⁴ For instance, women farmers in the Bima region face significant challenges due to climate variations that disrupt agricultural productivity, but they also play an important role in designing adaptation strategies to strengthen food security.¹⁵ Although women contribute substantially to climate change mitigation and adaptation efforts, their contributions have not significantly influenced climate policies. The lack of recognition of women's roles leads to persistent inequalities

⁹ Titiek Kartika Hendrastiti, Siti Kusujarti, dan Rambat Nur Sasongko, "The Narratives of Local Women's Resilience in Disaster and Climate Change: The Voices of Indonesian Women in the Watershed Areas," *The Indonesian Journal of Socio-Legal Studies* 3, no. 1 (2023).

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Cindy Adelima Sinaga dan Rahma Hayati Harahap, "Ecofeminist Perspective: Climate Change and Its Impact on Women," *Journal of Sumatera Sociological Indicators* 2, no. 2 (2023): 193–200.

¹⁴ Hendrasti, Titiek Kartika, Siti Kusujarti, dan Rambat Nur Sasongko. "The Narratives of Local Women's Resilience in Disaster and Climate Change: The Voices of Indonesian Women in the Watershed Areas." *The Indonesian Journal of Socio-Legal Studies* 3, no. 1 (2023): 1–21. <https://doi.org/10.54828/ijsls.2023v3n1.4>

¹⁵ Aulia Nurul Hikmah, "Model Resiliensi Rumah Tangga Petani Padi Sawah dan Petani Padi Ladang di Kabupaten Polewali Mandar dalam Menghadapi Perubahan Iklim," *Agriculture and Socio-Economic Journal* 1, no. 2 (2024): 61–71.

in the planning and implementation of more inclusive environmental policies. Thus, it is necessary to explore how ecofeminist approaches can enhance women's resilience in the face of climate change and contribute to more effective mitigation strategies. In this context, women not only endure the physical and economic consequences of ecological crises but are also politically marginalized within local decision-making processes. Inequalities in political life between men and women become evident when women's voices and interests are often overlooked in official disaster-management forums. Hence, it becomes crucial to reveal the strategies of resistance and resilience developed by women as forms of counteraction against structural domination, as well as efforts to build ecological and social resilience.

This study aims to explore the dynamics of women's resilience in the Lapindo mudflow disaster through an ecofeminist lens. It seeks to examine how women affected by the disaster develop resilience and identify the social, economic, ecological, and structural factors that shape their capacity to cope with the impacts of climate change. The study examines women's adaptation strategies, the role of community support in enhancing resilience, gender-based exclusion in decision-making processes, and women's aspirations for more equitable disaster recovery efforts and policies. This framework intersects with Crenshaw's concept of intersectionality, as cited by Lakatos, which emphasizes that women's experiences cannot be separated from class, ethnicity, social status, and administrative position.¹⁶ In the Lapindo mudflow case, women face multiple, overlapping forms of vulnerability, from losing their homes to being excluded from formal compensation systems.¹⁷ Social resilience theory is employed to understand how communities, particularly women, develop adaptive mechanisms grounded not only in individual strength but also in social networks, local cultural values, and community solidarity.¹⁸ Thus, women's resilience in this context is not merely survival-oriented; it is also transformative and rooted in local knowledge.

The research focuses on: (1) the social, economic, health, environmental, cultural, and spiritual impacts experienced by women; (2) the resilience strategies they develop; (3) gender roles and forms of exclusion within village-level decision-making; and (4) women's expectations regarding disaster recovery and more equitable policy frameworks. This study also investigates how women's experiences and struggles can serve as the basis for inclusive and gender-just recovery policies. This study employs the ecofeminist perspective articulated by Mies and Shiva, as cited by Baidya, as its

¹⁶ Ibid.

¹⁷ Puji Lestari, *Komunikasi Bencana: Aspek Penting* (Yogyakarta: PT Kanisius, 2018).

¹⁸ Ibid..

primary theoretical framework. Ecofeminism posits that environmental degradation and gender injustice are deeply intertwined.¹⁹ Within this framework, women are positioned not only as double victims—of ecological exploitation and patriarchal domination—but also as agents of change who have both spiritual and material connections to nature. Ecofeminism asserts that women’s everyday interactions with the natural environment provide them with distinctive perspectives and capacities for environmental stewardship and for strengthening community resilience.²⁰

METHOD

This study employs a qualitative approach using a case study method focusing on the experiences of women confronting the ecological impacts of the Lapindo mudflow disaster in Sidoarjo, East Java. A descriptive qualitative design was used to examine the disaster’s impacts, adaptation strategies, social resilience, and the gender dynamics that emerge in the context of climate change. Informants were selected purposively based on their direct involvement in affected communities and their lived experiences with the disaster. The study involved a total of nine informants, consisting of five women and four men who were directly affected and actively involved in community activities. Informant selection considered diversity in age, social roles, and affected locations to ensure a representative range of perspectives. Data were collected through semi-structured in-depth interviews, focus group discussions (FGDs) with groups of affected women, and documentation. Data were analyzed thematically through transcription, coding, and theme development, and interpreted through the lens of ecofeminist theory. Data validity was maintained through methodological triangulation and member checking. Ethical considerations included obtaining informed consent, ensuring the protection of participants’ identities, and providing a safe space for women’s narratives. The research was conducted over six months and included several stages: literature review, instrument preparation, field data collection, thematic analysis, and the writing of the journal article.

RESULTS AND DISCUSSION

Disaster Impacts on Women’s Lives

The Lapindo mudflow disaster brought profound changes to the social lives of women in the affected areas. They not only lost their homes and sources of livelihood but also experienced forced relocation, social dislocation, and the breakdown of community networks that had previously sup-

¹⁹ Baidya, “Women as Ecofeminist Leaders.”

²⁰ Mila Karmilah dan Sudaryono Sastrosasmita, “Adapting Coastal Settlement to Climate Change: Insight from Ecofeminist Perspective,” *International Journal of Sustainable Development and Planning* 19, no. 7 (2024): 2515–25.

ported their daily lives. Relocation also resulted in mismatches between residence status and administrative records, causing many women to face significant difficulties in accessing basic services such as national health insurance (BPJS), social assistance, and children's education.

A community organizer from Siring Village, H (47), described how many affected residents were not registered in the official government database despite having completed electronic ID (E-KTP) registration. He emphasized that the absence of valid administrative documents disproportionately affected women, particularly when managing their children's education and healthcare needs.²¹ U (52), a Puskesmas (Social Welfare Center) cadre in Mindi, frequently assists impoverished residents, especially women, in accessing hospital services by helping them navigate the required administrative paperwork.²² Findings from the FGD reveal that women also face structural violence. For example, peaceful demonstrations organized by mothers were met with repressive responses from security forces, and even local activists received threats against their families for voicing demands for justice.²³ These accounts demonstrate that the social impacts on women affected by the Lapindo disaster extend far beyond the loss of housing. They include identity vulnerability, state repression, threats to family safety, and the marginalization of women's voices in public spheres.

These conditions can be explained through gender injustice frameworks, in which women bear layered burdens due to unequal post-disaster social structures. Mies and Shiva's cultural ecofeminist perspective argues that women, as caretakers of life, often become victims within development systems that exploit nature.²⁴ Forced relocation, state violence, and the loss of administrative identity represent not merely physical displacement, but also the uprooting of women's social and ecological foundations, revealing a form of spatial as well as symbolic dislocation.

Previous studies reinforce these findings. Hendrastiti et al. show that women's contributions to social sustainability are often unrecognized in formal policy frameworks, resulting in the marginalization of their voices.²⁵ Rosalinda et al. find that although women play an essential role in maintaining community networks, their participation in decision-making forums remains limited.²⁶ Similarly, Sinaga and Harahap emphasize that women in contexts of environmental conflict frequently experience double exclusion: economic marginalization alongside the loss of administrative

²¹ H (47), a community mobilizer from Siring Village, interview conducted on 28 April 2025.

²² U (52), a Puskesmas cadre from Mindi Subdistrict, interview conducted on 10 September 2025.

²³ S (44), affected resident; L (38), local activist, FGD conducted on 10 September 2025.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

access.²⁷ Thus, women are not only victims of the disaster but also social agents who assume new roles in sustaining their communities through acts of solidarity, advocacy, and administrative assistance amid pervasive structural constraints.

The Lapindo mudflow disaster also generated severe economic impacts on the affected communities, particularly on women. The loss of agricultural land, homes, and factories across the disaster zone left thousands of families without their primary sources of income. Women not only lost their subsistence-based work as farmers or agricultural laborers but also carried an additional burden of sustaining household needs while their husbands remained unemployed. According to S (44), a woman who previously worked as an agricultural laborer, she lost her entire source of income after the farmland was submerged in mud.²⁸ E (47), a former rattan factory worker, recounted that both her home and workplace were completely inundated, leaving her dependent on external aid for survival.²⁹ U (52) explained that the early phase of the disaster was filled with stress, as families lost all their assets while women were still expected to maintain domestic responsibilities amid conditions of uncertainty.³⁰ Residents of Kesambi Village also noted that many women became targets of microloan programs, but the high-interest schemes eventually trapped them in debt, forcing some to sell their relocation houses. Economic activities that were once productive declined drastically. In 2019, residents established the Lapindo Victims' Cooperative as an act of resistance against economic collapse, though it continues to struggle with limited capital and networking capacity.

Theoretically, the economic impacts on women in post-disaster contexts can be explained through Enarson's gender vulnerability framework, as cited by Parkinson et al., which argues that women are more likely to lose their livelihoods due to limited access to productive assets and restricted involvement in public decision-making.³¹ Mies and Shiva's cultural ecofeminist perspective similarly emphasizes that the loss of agricultural land and economic resources constitutes a dual form of exploitation: of nature itself and of women as the primary custodians of household subsistence.³² These findings align with Mustofa, who underscores the importance of social capital in rebuilding post-disaster economic resilience.³³ Rosalinda et al. also highlight that

²⁷ Ibid.

²⁸ S (44), an affected resident of Siring Village, interview conducted on 10 September 2025.

²⁹ E (47), a former rattan-factory worker and affected resident, interview conducted on 28 April 2025.

³⁰ U (52), a Pukesos cadre from Mindi Subdistrict, interview conducted on 10 September 2025.

³¹ Tegan Larin, *Gender and Disaster: Scoping Review* (October 2023), 1–5.

³² Mark Duffield, *Global Governance and the New Wars: The Merging of Development and Security*, 1st ed. (London: Zed Books Ltd, 2014).

³³ Ibid.

although women play a crucial role in sustaining household economies, their contributions often remain marginalized within formal policy frameworks.³⁴ Thus, the women affected by the Lapindo disaster not only suffered the most significant economic losses but also emerged as key actors in rebuilding community economies through microenterprises, savings-and-loan groups, and local cooperatives.

Health Impacts

The Lapindo mudflow disaster has had severe health consequences for affected communities, particularly for women and children. As the primary caregivers responsible for ensuring household access to water, food, and health, women bear the heaviest burden from water contamination, air pollution, and exposure to toxic gases. HR (37), a resident of Mindi Village, explained that exposure to contaminated air and water has caused respiratory distress and, in several cases, death. Despite knowing the risks, families continue to use polluted water for daily needs due to limited alternatives.³⁵ S (44) added that the supply of clean water provided by aid organizations was temporary; today, residents must purchase clean water at high prices, further straining household finances.³⁶ U (52) emphasized that there is still no available medical facility or health insurance support for residents, even though they live in a high-risk environment.³⁷ These conditions have contributed to increased cases of acute respiratory infections (ARI), stunting in children, and psychological distress. Women once again carry the dual burden, physically and emotionally, as caregivers and protectors of their families, navigating both the visible and invisible health impacts of the disaster.

The health consequences observed in Lapindo align with Wisner et al.'s concept of slow-onset disasters, as cited by Staupe, which describes disasters whose impacts unfold gradually and persist over long periods.³⁸ From a cultural ecofeminist standpoint, Mies and Shiva argue that women, who are intimately connected to water, food security, and family health, inevitably experience the most severe burdens when the environment becomes degraded.

These findings are consistent with Hikmah's research, which documents how women farmers adapt to environmental degradation by managing household resources more efficiently.³⁹ Similarly, Mustofa et al. emphasize that in environmental conflict settings, women are

³⁴ Ibid.

³⁵ HR (37), an affected resident of Mindi Village, interview conducted on 28 April 2025.

³⁶ S (44), an affected resident of Siring Village, interview conducted on 10 September 2025.

³⁷ U (52), a Pukesos cadre from Mindi Subdistrict, interview conducted on 10 September 2025.

³⁸ R. Staupe-Delgado, *Overcoming Barriers to Proactive Response in Slow-Onset Disasters*, t.t..

³⁹ Ibid.

disproportionately vulnerable to health deterioration and the loss of access to essential services.⁴⁰ In this context, the health problems faced by women affected by the Lapindo disaster are not merely medical issues—they are structural consequences of state neglect and the entrenched influence of extractive industries.

Environmental Impacts

The Lapindo mudflow disaster has caused profound environmental damage to the daily lives of affected residents, particularly women whose routines depend heavily on access to clean water, fertile soil, and safe air. The loss of agricultural land, contamination of water and air, and the necessity of living alongside persistent ecological hazards have drastically constricted their living space and quality of life. A (46), a resident of Mindi Village, explained that once-fertile agricultural land is now entirely buried under mud, leaving only small plots of yard space that are difficult to cultivate.⁴¹ S (44) added that water contamination has turned household wells murky, foul-smelling, and irritating to the skin. Residents are left with no choice but to purchase clean water or rely on neighbors' wells when possible.⁴² A (46) also described widespread fear of air pollution, especially after sudden deaths occurred during periods when the wind carried strong, pungent odors from the mudflow's toxic emissions.⁴³

These conditions illustrate how women bear the brunt of ecological degradation, which impacts both household economies and family health. From Mies and Shiva's cultural ecofeminist perspective, women are disproportionately impacted due to their close material and emotional ties to the natural environment, which forms the foundation of family subsistence.⁴⁴ Environmental injustice theory also applies here, as ecological harms disproportionately burden vulnerable groups while the state and corporations fail to provide adequate compensation. Such conflicts endanger women's livelihoods, especially those in rural agricultural communities whose survival depends on land.⁴⁵

⁴⁰ Ibid.

⁴¹ A (46), an affected resident of Mindi Village, interview conducted on 28 April 2025.

⁴² S (44), an affected resident of Siring Village, interview conducted on 10 September 2025.

⁴³ A (46), an affected resident of Mindi Village, interview conducted on 28 April 2025.

⁴⁴ Ibid.

⁴⁵ Olubunmi Tayo Agboola dan Ibikunle Adeakin, Narratives of Climate Change and Herdsmen's Invasion in Nigerian Newspapers: Rethinking the Crisis from an Ecofeminist Perspective, *Journal of Issues in Language and Literary Studies* 4, no. 1 (2018) & 5, no.1 (2019): 29–45

These findings are consistent with Hendrastiti et al., who highlight how women in ecological disaster settings continue to safeguard household food security through localized adaptation strategies despite limited resource access.⁴⁶ Rosalinda et al. similarly find that although women play a key role in sustaining environmental well-being through everyday practices, their voices remain unrecognized in policy forums.⁴⁷ Mustofa et al. reinforce these conclusions, asserting that environmental conflicts exacerbate women's vulnerabilities by forcing them to confront ecological degradation alongside social marginalization.⁴⁸ Balducchi further argues that shifting human–nature relations necessitate the development of alternative modes of production.⁴⁹

Cultural and Spiritual Impacts

The Lapindo mudflow disaster has disrupted not only the social and economic fabric of affected communities but also their cultural and spiritual life. The destruction of land and the loss of ecological rootedness have caused many nature-based traditions and customary practices to fade. Women, often the primary bearers of cultural knowledge, commonly interpret the disaster as a form of “nature’s warning,” making spiritual practices an important adaptive strategy in coping with uncertainty. Findings from the FGD highlight several shifts in cultural and spiritual practices following the disaster: increased engagement in prayer and ritual as a form of adaptation; children’s loss of contact with rice fields and agricultural activities; the interruption of ecological education; the framing of the disaster as a moral or ecological admonition; and women’s continued central role in preserving values and traditions through storytelling and spiritual practices.⁵⁰

From an ecofeminist perspective, ecological disruption alters the symbolic, cultural, and spiritual structures of society, particularly those related to women’s roles. Nature is not only a source of subsistence but also a reservoir of identity, moral order, and social balance. When nature is damaged, cultural and spiritual practices are inevitably affected, prompting communities to develop adaptive mechanisms such as rituals, prayers, and moral reinterpretations of the disaster. This aligns with theories of social coping, which posit that individuals and groups use spiritual and cultural strategies to maintain psychological and social equilibrium in the face of external stressors.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Aurora Balducchi, *Harmony or Hierarchy? An Ecofeminist Case Study of the Impacts of Climate Change on Power Relations in Tutimayu, Bolivia* (Master of Science thesis, Lund University, May 2024).

⁵⁰ ST (45), a resident of Kedungbendo Village; HR (37), a resident of Mindi Village; L (38), a local activist from the affected area; J (50), a local spiritual leader; AM (42), a resident of Kedungbendo Village, FGD conducted on 10 September 2025.

The testimonials illustrate how the loss of physical environments has weakened cultural practices, traditional education, and spirituality. These findings resonate with Mahfoud et al., who demonstrate that spiritual practices often serve as coping mechanisms to sustain psychological and social stability.⁵¹ From an ecofeminist standpoint, women's ecological experiences shape the community's interpretations of disaster and their efforts to preserve cultural identity.

Resilience and Adaptation Strategies Based on the Impacts

Women demonstrated a strong capacity for social resilience in responding to the disaster's social impacts. They mobilized social capital, community solidarity, and informal networks to survive and adapt to rapidly changing conditions. Findings from the FGD indicate that women's self-reliance became a foundation for maintaining household stability, which later evolved into collective action through the establishment of support groups such as the *Komunitas Arrohmah*, savings circles (*arisan*), and community exercise groups. These collectives functioned as spaces to share experiences and survival strategies, resist bribery practices during aid distribution, support one another in childcare and daily needs, and provide emotional encouragement that strengthened psychological resilience.⁵²

Women's resilience strategies align with Mustofa's concept of social resilience, which underscores the importance of social capital, community solidarity, and both individual and household adaptive capacity in times of crisis.⁵³ From a transformative ecofeminist perspective, women are not merely passive victims but adaptive actors and agents of social change. Meanwhile, Crenshaw's intersectionality theory, as cited by Lakatos, explains how women face layered inequalities—balancing domestic and public roles while simultaneously experiencing marginalization in post-disaster decision-making processes.⁵⁴ Mustofa emphasizes that women's participation in social networks enhances both community adaptive capacity and household resilience.⁵⁵ Prasetyo further shows that women's support groups function as hubs for information exchange and psychosocial reinforcement in post-disaster contexts, providing safe spaces for women to share experiences and survival strategies.⁵⁶ Thus, self-reliance, social integrity, and community solidarity emerge as key

⁵¹ Mahfoud, Daniella, Mirna Fawaz, Sahar Obeid, dan Souheil Hallit. "The Co-Moderating Effect of Social Support and Religiosity in the Association between Psychological Distress and Coping Strategies in a Sample of Lebanese Adults." *BMC Psychology* 11, artikel 61 (2023).

⁵² "L (38), a local activist; ST (45), a resident of Kedungbendo Village; AM (42), a resident of Kedungbendo Village, FGD conducted on 10 September 2025.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Ibid.

adaptive strategies developed by women to sustain and strengthen their communities amid ecological crisis.

Economic Resilience Strategies

Women affected by the disaster developed a range of economic strategies to sustain their families and supplement household income. These strategies demonstrate their adaptive capacity, creativity in times of crisis, and their role in strengthening the community's social capital. Findings from the FGD show that women relied on micro-enterprises and informal work, such as opening small home-based shops or offering laundry services to neighbors, to meet daily needs and build modest savings. Women's groups such as *Komunitas Arrohmah* also served as vital spaces for sharing business information, accessing small capital, and exchanging household financial strategies. At the household level, women adopted cost-saving practices, including purchasing only essential staples and optimizing the limited resources available to them.⁵⁷

Women's economic resilience strategies are consistent with social resilience theory. Mustofa emphasizes the importance of social capital and community networks in navigating crises.⁵⁸ From a transformative ecofeminist perspective, women are not merely passive recipients of disaster impacts but strategic drivers of localized micro-economies. Mutual support among women and the formation of small business groups highlight the importance of collective social capital as a foundation for economic resilience. Suryani and Wulandari argue that women's micro-businesses and side occupations are vital mechanisms for maintaining household economic stability after disasters. Mustofa further demonstrates that women's involvement in community networks enhances both economic and social adaptive capacities.⁵⁹ Similarly, Prasetyo et al. found that women's support groups serve as sources of information, capital, and skills that strengthen household resilience.⁶⁰

Health Resilience Strategies

Women and their families developed a variety of adaptive strategies to maintain both physical and mental health in the aftermath of the disaster. These strategies involved improving household environmental conditions, managing family health needs, and seeking emotional support from community networks. Findings from the FGD show that women safeguarded their children's health by maintaining household hygiene and providing nutritious food. They continued to access available

⁵⁷ L (38), a local activist; AM (42), a resident of Kedungbendo Village; ST (45), a resident of Kedungbendo Village, FGD conducted on 10 September 2025.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Ibid.

healthcare services, such as community health centers (*puskesmas*) and maternal–child health posts (*posyandu*), participated in village health training programs, and managed their time between caregiving and domestic responsibilities. Emotional resilience was strengthened through sharing experiences with other women, while proactive monitoring of children in ecologically hazardous areas helped protect both physical and mental well-being.⁶¹

These health resilience strategies align with Mustofa’s social resilience theory, which highlights the importance of individual and community adaptive capacities in confronting physical and psychological stress.⁶² From a transformative ecofeminist perspective, women function as key health agents within households and the broader community, and as drivers of social change through their efforts to maintain family health. Mustofa also notes that women’s participation in community training and their active involvement in monitoring family health significantly increase physical and mental resilience.⁶³ Prasetyo et al. also emphasize that women’s support groups serve as important hubs for health-related information exchange and adaptive strategies.⁶⁴

Environmental Resilience Strategies

Women affected by the disaster demonstrated a strong ecological awareness and developed adaptive strategies to minimize environmental deterioration while supporting their families’ long-term survival. These strategies combine local knowledge, risk management practices, and community participation. Findings from the FGD show that women implemented ecological adaptation strategies by planting vegetables in narrow yard spaces to enhance household food security, managing household waste by converting organic waste into fertilizer and sorting plastic waste, maintaining environmental cleanliness, supervising children in hazardous areas, and providing informal environmental education to their children and neighbors. Women also expressed a desire to be involved in village spatial planning and land rehabilitation efforts, hoping to contribute meaningfully to ecological recovery.⁶⁵

Women’s environmental resilience strategies align with Mies and Shiva’s transformative ecofeminism, which positions women as agents of ecological restoration and as social actors who sustain ongoing, reciprocal relationships with nature.⁶⁶ Spiritual ecofeminism further highlights

⁶¹ L (38), a local activist; AM (42), a resident of Kedungbendo Village; ST (45), a resident of Kedungbendo Village, FGD conducted on 10 September 2025.

⁶² Ibid.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ L (38), a local activist; AM (42), a resident of Kedungbendo Village; ST (45), a resident of Kedungbendo Village, FGD conducted on 10 September 2025.

⁶⁶ Ibid.

women's spiritual connectedness to the environment, which inspires simple yet sustainable practices such as replanting, waste management, and informal environmental teaching. Mustofa demonstrates that social capital and community networks enhance the effectiveness of ecological adaptation.⁶⁷ Prasetyo et al. show that informal environmental education and women's participation in community groups are critical mechanisms for fostering ecological awareness and mitigating risks.⁶⁸ Sinaga et al. argue that feminist and environmental movements share overlapping objectives: both challenge patriarchal and authoritarian models that devalue women by associating them with "nature" or "naturalized" conditions.⁶⁹ Wijayanti et al. emphasize that solidarity—understood as bonds, relationships, and interconnectedness—is not only essential among humans but, within ecofeminist principles, is equally necessary within human–nature relations.⁷⁰

Cultural and Spiritual Resilience Strategies

Women affected by the disaster developed adaptive strategies rooted in cultural and spiritual practices to preserve identity, sustain local values, and maintain inner resilience. These strategies integrate religious practices, interpretations of the disaster, and community-based solidarity. Findings from the FGD show that women interpret the disaster as a divine warning that encourages moral reflection and ecological awareness. They preserve local rituals, transmit customary knowledge, myths, and village legends to children to maintain cultural continuity and instill spiritually grounded ecological consciousness. Women also build psychosocial support spaces through collective prayers and religious study groups (*pengajian*), where gratitude, prayer, and spiritual togetherness become sources of inner strength for navigating crisis.⁷¹

These cultural and spiritual resilience strategies align with Mies and Shiva's cultural and spiritual ecofeminism, which emphasizes women's relational connection with nature, spirituality, and local cultural practices.⁷² Religious activities, local rituals, and the strengthening of traditional knowledge serve as holistic adaptive mechanisms that integrate social, cultural, and spiritual dimensions. Mustofa's study highlights that the integration of spirituality and local knowledge into adaptive strategies enhances women's capacity to confront crisis.⁷³ Prasetyo et al. show that teaching

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Wijayanti, Ika, Nila Kusuma, dan Oryza Pneumatica. "Gerakan Ekofeminisme Dalam Pemberdayaan Perempuan Pengolah Limbah (Studi Kasus Komunitas Pengolah Limbah di Desa Narmada)." *RESIPROKAL: Jurnal Riset Sosiologi Progresif Aktual* 1, no. 1 (2019): 40–52.

⁷¹ L (38), a local activist; AM (42), a resident of Kedungbendo Village; ST (45), a resident of Kedungbendo Village, FGD conducted on 10 September 2025.

⁷² Ibid.

⁷³ Ibid.

cultural values and local mythologies to children supports the continuity of traditional ecological knowledge.⁷⁴

Below is a table summarizing the impacts experienced by women and the resilience strategies they developed:

Impact Category	Impacts on Women	Resilience / Adaptive Strategies
Social	Loss of homes, community networks, and access to public services; forced relocation; psychosocial stress	Managing administrative documents; building community solidarity; mediating between communities and bureaucracy
Economic	Loss of land and livelihood; decline in household income; debt entrapment	Establishing micro-enterprises; factory work; forming cooperatives or savings groups; receiving support from social networks
Health	Contaminated water and air; chronic illnesses; child stunting; psychological distress	Managing household resources; accessing community health support; preventive health practices
Environment	Land, water, and air degradation; ecological risks; limited living space	Small-scale gardening; waste management; identifying alternative water sources; environmental education for children
Cultural & Spiritual	Loss of traditional practices; disruption of spiritual ties to nature	Strengthening local rituals and collective prayers; teaching respect for nature; mediating traditional and spiritual values

Table 1. Impacts and Resilience Strategies of Women

This table synthesizes the real impacts experienced by women with the adaptive and resilience strategies they developed, demonstrating clear alignment with ecofeminist theory, gender injustice frameworks, and social resilience theory. Overall, these findings reveal that women are not merely disaster victims; they are adaptive agents actively sustaining their families, communities, environments, and cultural-spiritual traditions.

Gender Roles and the Ecofeminist Perspective

Within the ecofeminist framework developed by Mies and Shiva, women are not only victims of ecological disasters but also victims of patriarchal social systems that consistently limit their access

⁷⁴ I. T. Prasetyo, *Peran Budaya Lokal dan Kelompok Dukungan Perempuan dalam Mitigasi Bencana di Indonesia*, tesis, Universitas Hasanuddin, 2021.

to voice and agency.⁷⁵ Women possess spiritual, ecological, and practical relationships with the environment: they manage water, cultivate plants, and sustain household food security. Yet when their living space is damaged by industrial exploitation, their voices are simultaneously marginalized. Several informants reported that they were never invited to village deliberations (*musyawarah desa*) or involved in the distribution of aid, despite being the individuals most aware of their families' needs.

Gender inequality is evident in the dominance of men in decision-making processes and the minimal involvement of women in village forums. This supports Crenshaw's theory of intersectionality, cited by Lakatos, which explains how women stand at the intersection of multiple forms of inequality, such as gender, socio-economic status, and administrative position.⁷⁶ From a cultural ecofeminist perspective, the marginalization of women in environmental recovery processes is not coincidental; it is part of a systemic pattern linking environmental exploitation with the exploitation of women's bodies, labor, and knowledge. Although women maintain deep spiritual and practical ties to the environment, these connections become fractured when nature is harmed.

Reflections and Recommendations

The reflections shared by women survivors reveal that they do not want their children to become a "generation of victims" inheriting ecological trauma. They hope that the state will be present not only through material aid but also through recognition and genuine participation. Their reflections on the future of their children illustrate dimensions of radical ecofeminism: women are not merely adapting to crisis but demanding acknowledgment, justice, and full involvement in recovery processes. These demands represent a form of political agency in which women no longer wait for change from above, but actively pursue change from below through meaningful everyday practices.

Kanter emphasizes the need for an ecologically grounded degrowth economy, one that prioritizes well-being over profit, as a solution to intertwined social, environmental, and gender crises.⁷⁷ This resonates with Johnson's argument that in the context of the climate crisis and ecological disaster, women can become agents of social transformation through ethics of care, sustainability, and spirituality.⁷⁸ In line with these perspectives, Seyyed Hossein Nasr underscores the importance of cultivating harmony between God, humanity, and nature through *ecosufism*, integrating spiritual consciousness with the human responsibility as *khalifah fil ardhi* (stewards of the earth). His view

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Ibid.

provides a spiritual foundation for the sustainability and resilience practices enacted by women amid ecological crisis.⁷⁹

No	Main Theme	Field Findings	Relevant Theories
1	Disaster Impacts on Women's Lives	Social: Loss of homes, forced relocation, social dislocation, difficulty accessing public services, psychosocial stress. Economic: Loss of subsistence and formal livelihoods, double burden of household income, microfinance debt traps. Health: Water and air contamination, acute and chronic illnesses, mental health challenges, child stunting. Environmental: Loss of agricultural land, degraded water and air, limited living space, heightened ecological risks. Cultural & Spiritual: Erosion of traditions, disrupted ecological education, disaster interpreted as moral and ecological warning.	Gender Injustice Theory; Cultural Ecofeminism (Mies & Shiva, 1993); Gender Vulnerability Theory (Enarson, 2012); Slow-Onset Disaster (Wisner et al., 2004); Social Coping Theory
2	Resilience and Adaptation Strategies	Social: Self-reliance, women's community organizations (e.g., <i>Komunitas Arrohmah</i>), solidarity, social integrity. Economic: Micro-enterprises, side jobs, household savings strategies, sharing capital and knowledge within community networks. Health: Healthy lifestyle management, use of health services, psychosocial support, community health training. Environmental: Home gardening, waste management, informal environmental education, involvement in spatial planning. Cultural & Spiritual: Religious practices, local rituals, transmitting myths and customs, collective prayer groups.	Social Resilience Theory (Mustofa, 2023); Transformative Ecofeminism; Intersectionality (Crenshaw, 1989); Cultural & Spiritual Ecofeminism (Mies & Shiva, 1993; Shiva, 2014)

⁷⁹ Muhammad Syihabuddin dan Kirwan, "Rekonsepsi Etika Lingkungan dalam Islam: Tinjauan Filsafat dan Aplikasinya Pemikiran Husein Nasr," Refleksi: Jurnal Filsafat dan Pemikir Islam 23, no. 2 (Juli–Desember 2023):

3	Gender Roles and Exclusion in Public Decision-Making	Women experience double burdens, are not heard in village deliberations, lose cultural and spiritual rootedness, and have minimal access to information and aid.	Ecofeminism; Intersectionality (Warren, 2000; Crenshaw, 1989)
4	Women's Reflections and Recommendations	Hopes for future generations, life reflection, desire for participation in policymaking, demand for state presence and community education.	Women's Agency Theory; Radical Ecofeminism (Salsabila & Diera, 2022; Johnson, 2022)

Table 2. Summary of Research Findings and Theoretical Analysis

CONCLUSION

This study shows that the Lapindo mudflow disaster produced complex, multidimensional impacts on women, such as social, economic, health-related, environmental, cultural, and spiritual. Women faced the loss of homes and livelihoods, disrupted social networks, limited access to public services, and significant ecological and health risks. Despite these challenges, women demonstrated strong resilience through diverse strategies: forming community groups, developing micro-enterprises, managing household health and finances, practicing environmental adaptation, and sustaining cultural and spiritual traditions. The study also highlights persistent gender inequality, as women were largely excluded from village decision-making and recovery planning, reinforcing structural marginalization in post-disaster governance. Women's reflections reveal that their resilience is multidimensional and grounded in ethics of care, spirituality, and ecological awareness. This underscores the need for fully involving women in disaster recovery and public policy processes to ensure more inclusive, gender-just, and sustainable outcomes.

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REFERENCES

- Agboola, Olubunmi Tayo, dan Ibikunle Adeakin. Narratives of Climate Change and Herdsmen's Invasion in Nigerian Newspapers: Rethinking the Crisis from an Ecofeminist Perspective. *Journal of Issues in Language and Literary Studies* 4, no. 1 (2018) & 5, no.1 (2019): 29–45.
- Baidya, Patatri. "Women as Ecofeminist Leaders: Transforming Forest Management and Empowerment in West Bengal." *Ecofeminism and Climate Change* 5, no. 2 (2024): 123–27.
- Balducchi, Aurora. *Harmony or Hierarchy? An Ecofeminist Case Study of the Impacts of Climate Change on Power Relations in Tutimayu, Bolivia*. Master of Science thesis, Lund University, May 2024.
- Duffield, Mark. *Global Governance and the New Wars: The Merging of Development and Security*. 1st ed. London: Zed Books Ltd, 2014.
- Larin, Tegan. *Gender and Disaster: Scoping Review*. October 2023..
- Hendrastiti, Titiek Kartika, Siti Kusujarti, dan Rambat Nur Sasongko. "The Narratives of Local Women's Resilience in Disaster and Climate Change: The Voices of Indonesian Women in the Watershed Areas." *The Indonesian Journal of Socio-Legal Studies* 3, no. 1 (2023).
- Hikmah, Aulia Nurul. "Model Resiliensi Rumah Tangga Petani Padi Sawah dan Petani Padi Ladang di Kabupaten Polewali Mandar dalam Menghadapi Perubahan Iklim." *Agriculture and Socio-Economic Journal* 1, no. 2 (2024): 61–71.
- Johnson, Olivia. *A Woman's Place is in the Resistance: An Ecofeminist Response to Climate Change*. Master's thesis, Fordham University, 2022.
- Kanter, Miranda. "Modern Slavery as a Product of Transnational Corporate Supply Chains: An Ecofeminist Evaluation of Systems to Address the Linkage Between Modern Slavery, Climate Change, and Gender Injustice." Bachelor of Science in Urban and Public Affairs, University Honors, Portland State University, 2023.
- Karmilah, Mila, dan Sudaryono Sastrosasmita. "Adapting Coastal Settlement to Climate Change: Insight from Ecofeminist Perspective." *International Journal of Sustainable Development and Planning* 19, no. 7 (2024): 2515–25.
- Lakatos, Dora. *Seeing and (Dis)Believing: An Ecofeminist Perspective on Discourse in Climate Change Documentaries*. Master's thesis, Central European University, Budapest, 2020..
- Daniella Mahfoud, Mirna Fawaz, Sahar Obeid, dan Souheil Hallit, "The Co-Moderating Effect of Social Support and Religiosity in the Association between Psychological Distress and Coping Strategies in a Sample of Lebanese Adults," *BMC Psychology* 11, artikel 61 (2023)..
- Mies, Maria, dan Vandana Shiva. *Ecofeminism*. Foreword by Ariel Salleh. London: Zed Books, t.t.
- Mustofa, Mustabsyrotul Ummah, M. Diva Kafila Raudya, Jian Ayune Sundul Langit, dan Pupoes Biworo. "Resiliensi Perempuan dalam Konflik Lingkungan di Indonesia." *Journal of Political Issues* 5, no. 1 (2023): 54–64.
- Prasetyo, I. T. *Peran Budaya Lokal dan Kelompok Dukungan Perempuan dalam Mitigasi Bencana di Indonesia*. Tesis, Universitas Hasanuddin, 2021.
- Lestari, Puji. *Komunikasi Bencana: Aspek Penting*. Yogyakarta: PT Kanisius, 2018...
- Rosalinda, Henny, Rany Hadi, dan Amalia Nur Andini. "The Ecofeminist Perspective on the Impact of Climate Change on Women's Health: Study Case of Coastal Women in Sendang Biru Hamlet, Indonesia." *Jurnal Ilmiah Hubungan Internasional* 1, no. 1 (2024): 32–46.
- Sinaga, Cindy Adelima, dan Rahma Hayati Harahap. "Ecofeminist Perspective: Climate Change and Its Impact on Women." *Journal of Sumatera Sociological Indicators* 2, no. 2 (2023): 193–200.
- Staupe-Delgado, R. *Overcoming Barriers to Proactive Response in Slow-Onset Disasters*. t.t.

- Syihabuddin, Muhammad, dan Kirwan. "Rekonsepsi Etika Lingkungan dalam Islam: Tinjauan Filsafat dan Aplikasinya Pemikiran Husein Nasr." *Refleksi: Jurnal Filsafat dan Pemikir Islam* 23, no. 2 (Juli–Desember 2023): 238–260.
- Wijayanti, Ika, Nila Kusuma, dan Oryza Pneumatica. "Gerakan Ekofeminisme Dalam Pemberdayaan Perempuan Pengolah Limbah (Studi Kasus Komunitas Pengolah Limbah di Desa Narmada)." *RESIPROKAL: Jurnal Riset Sosiologi Progresif Aktual* 1, no. 1 (2019): 40–52.