

CASE
STUDY

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Climate, Conflict, Collaboration in the Philippines:

THE IMPACT OF CLIMATE CHANGE, ENVIRONMENTAL
DEGRADATION, AND CONFLICT ON MARGINALIZED
YOUTH IN THE BANGSAMORO AUTONOMOUS REGION
IN MUSLIM MINDANAO (BARM).

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ACRONYMS

BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BHW	Barangay Health Worker
CAB	Comprehensive Agreement on the Bangsamoro
CBFM	Community-based Forest Management
CHR	Commission on Human Rights
FGD	Focus Group Discussion
KII	Key Informant Interview
IBGP	Integrated Bangsamoro Greening Program
IDP	Internally Displaced Person
MENRE	Ministry of Environment, Natural Resources, and Energy
MILF	Moro Islamic Liberation Front
MNLF	Moro National Liberation Front
SHIELD	Strengthening Humanitarian Early Recovery for Resilient Development
SK	Sangguniang Kabataan
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

Executive Summary

This study explores the intersections of climate change, environmental degradation, and conflict in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), particularly focusing on the experiences of marginalized youth. The research identifies how environmental shifts such as rising temperatures, increased droughts, and resource scarcity exacerbate local conflicts, with youth being both victims and actors in these dynamics. The study utilized an online survey of 179 participants, focus group discussions (FGDs), and key informant interviews (KIIs) to gather data on how climatic and environmental changes impact young men and women differently, with a special focus on gender roles and community resilience. Findings indicate that climate change has not only disrupted livelihoods but also increased tensions over scarce resources, further driving conflict in the region. Gender-specific vulnerabilities and the proactive role of youth in community-based initiatives are emphasized, calling for targeted policy interventions that address the compounded impacts of environmental and socio-political challenges in BARMM.



1. Introduction



SGA: SPECIAL GEOGRAPHIC AREA

Source: Hariboneagle927. *Bangsamoro Autonomous Region in Muslim Mindanao in Philippines*. Derivative of the 3 May 2021 version by Petriolo. Accessed September 11, 2024. https://commons.wikimedia.org/wiki/File:Bangsamoro_Autonomous_Region_in_Muslim_Mindanao_in_Philippines.svg.

The Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) in Southern Philippines, despite its natural wealth, remains one of the country's most impoverished and conflict-affected regions. However, there is limited research exploring the link between environmental and climatic changes and how they exacerbate socio-political conflicts, particularly from the perspective of marginalized youth in the region. This study seeks to fill that gap by investigating the intersections of climate change, environmental degradation, and conflict in BARMM.

The primary objective of this research is to understand how climatic changes, such as rising temperatures and more frequent droughts, contribute to conflicts in BARMM, with a focus on how young men and women experience and respond to these challenges. Key questions guiding this study include:

- How do environmental and climatic changes exacerbate conflict in the region?
- How do young people perceive and respond to these compounded challenges?
- How do gender roles shape their experiences and resilience strategies?

To address these questions, the study employed a mixed-methods approach. Data was gathered from an online survey involving 179 youth participants from different provinces in BARMM, providing demographic information and insights into their perceptions and experiences of climate change, conflict, and environmental degradation. In addition, three focus group discussions (FGDs) were conducted in key conflict-prone areas, allowing for deeper qualitative insights into the lived experiences of young people. Five Key informant interviews (KIIs) were also held with local community leaders, policymakers, and environmental experts to provide contextual perspectives on the broader socio-political and environmental dynamics affecting the region.

1.1. COUNTRY CONTEXT

Home to over 108 million people spread across over 7,000 islands in Southeast Asia, the Philippines is one of the most vulnerable countries to climate change and natural disasters.¹ Estimates place up to 60 percent of the country's land area and 74 percent of its population as highly exposed to flooding, landslides, typhoons, droughts, tsunamis, and more. Since 1990, natural disasters have caused the death of at least 70,000, displaced millions, and resulted in approximately \$23 billion in damages.²

The impact of climate and environmental challenges places a strain on the country's agricultural output which comprises 12 percent of the Gross Domestic Product.³ More than half of Filipinos reside in rural areas, where many families rely on farming and fishing as primary sources of income and where rates of illiteracy, unemployment, and poverty incidence are typically higher.⁴

These challenges are seen acutely in the Bangsamoro Autonomous Region in Muslim Mindanao.

Situated in the southern part of the Philippines, BARMM encompasses the provinces of Maguindanao, Lanao del Sur, Basilan, Sulu, and Tawi-Tawi, as well as the cities of Marawi, Lamitan, and Cotabato.⁵ The region is characterized by diverse geographical features, including mountainous terrains, extensive river systems, and coastal areas rich in marine biodiversity.⁶ The climate in BARMM is predominantly tropical, with significant rainfall and distinct wet and dry seasons.⁷ Despite its tropical climate supporting a wide range of flora and fauna, the region faces significant environmental challenges, including deforestation, land degradation, and climate change impacts, which threaten its natural resource sustainability.⁸

1 International Monetary Fund. Vulnerability to Climate Change and Natural Disaster. eLibrary, 2019. IMF eLibrary.

2 International Fund for Agricultural Development (IFAD). "Philippines." Accessed September 12, 2024. <https://www.ifad.org/en/web/operations/w/country/philippines>.

3 Ibid.

4 International Fund for Agricultural Development (IFAD). "Philippines." Accessed September 12, 2024. <https://www.ifad.org/en/web/operations/w/country/philippines>.

5 PhilAtlas. Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) Profile. March 2, 1903. <https://www.philatlas.com/mindanao/barmm.html> (accessed July 9, 2024).

6 United Nations Development Programme (UNDP). Training Workshop on Updating/Formulation on Local Climate Change Action Plan (LCCAP): Integrating Climate Security Lens. Suncity Hotel, General Santos City, Philippines, March 2023.

7 Agduma, A. R., et al. "Overview of Priorities, Threats, and Challenges to Biodiversity Conservation in the Southern Philippines." *Regional Sustainability* 4, no. 2 (June 2023): 203–13. <https://doi.org/10.1016/j.regsus.2023.05.003>.

8 De Leon, M. "[OPINION] The BARMM Must Address Intersecting Climate and Conflict Risks Now." *RAPPLER*. Accessed June 21, 2024. <https://www.rappler.com/voices/ispeak/opinion-bangsamoro-must-address-intersecting-climate-conflict-risks-now/>.

The 2nd Bangsamoro Development Plan highlights BARMM's high vulnerability to natural disasters and climate change, with some of the highest risk indicators in the Philippines.⁹ The region's low-lying areas and proximity to waterways make it susceptible to flooding and landslides, particularly in the provinces of Maguindanao del Sur, Maguindanao del Norte, and Lanao del Sur.¹⁰ Illegal logging and deforestation, reducing forest cover to 299,839 hectares, have exacerbated these risks, as has unplanned urbanization.¹¹ Climate change has intensified natural disaster impacts, with rising sea levels causing frequent sea surges in the island provinces, severe droughts from increasing temperatures, and frequent flooding and landslides from severe weather events.¹² In 2022, typhoon Paeng (Nalgae) underscored the growing strength of such disasters due to climate change, resulting in significant damage and casualties even in regions far from the typhoon's center, like BARMM.¹³

Demographically, BARMM is predominantly populated by the Moro people, who are mostly Muslim.¹⁴ Nationally, Muslims make up around 6 percent of the Philippines' population, with the majority residing in BARMM.¹⁵

Culturally, BARMM is marked by its rich ethnic diversity, encompassing various Moro ethnic groups such as the Maranao, Tausug, Maguindanaon, and Yakan, among others. These groups have their distinct languages, traditions, and customs, which play a significant role in the region's social fabric.¹⁶ For example, the integration of Sharia law into the region's legal system, particularly in family and personal matters, reflects the strong influence of Islamic practices on formal governance.¹⁷ Social structures in BARMM are heavily influenced by traditional and religious customs, with local governance often involving a blend of customary laws and formal political structures.¹⁸ For instance, traditional leaders often play a crucial role in mediating rido (clan feuds). In practice, this means that community decisions are often guided by traditional leaders and religious authorities.¹⁹

Amid the context of religious and cultural differences, the political landscape of BARMM has been shaped by a history of conflict and a struggle for autonomy. The region has experienced prolonged periods of armed conflict involving various groups such as the Moro National Liberation Front (MNLF) and the Moro Islamic Liberation Front (MILF), both of which have sought greater autonomy or independence from the central government of the Philippines.²⁰ This insurgency began in the late 1960s, particularly after the *Jabidah Massacre* in 1968, when Muslim recruits were killed by the Philippine military. This event marked the rise of the MNLF, which later splintered into the MILF, fueling a conflict that has resulted in significant loss of life—estimates range between 120,000 to 150,000 deaths by the mid-1990s—as well as the displacement of over a million people.

9 Philippines Bangsamoro Planning and Development Authority. 2nd Bangsamoro Development Plan 2023-2028.

10 Ibid.

11 Ibid.

12 Ibid.

13 Ibid.

14 "Who Are the Moro People?" Inquirer Opinion. Accessed June 21, 2024. <https://opinion.inquirer.net/39098/who-are-the-moro-people>.

15 "Religious Affiliation in the Philippines (2020 Census of Population and Housing)." Philippine Statistics Authority. February 22, 2023. <https://psa.gov.ph/content/religious-affiliation-philippines-2020-census-population-and-housing> (accessed July 9, 2024).

16 Crisis Group. "Southern Philippines: Fostering an Inclusive Bangsamoro." February 17, 2022. <https://www.crisisgroup.org/asia/south-east-asia/philippines/southern-philippines-fostering-inclusive-bangsamoro> (accessed July 9, 2024).

17 "P.D. No. 1083." 2024. Lawphil.net. 2024. https://lawphil.net/statutes/presdecs/pd1977/pd_1083.

18 Delina, Leo L., Noel P. P. Ludovice, John Gaviola, and Rufa Cagoco-Guiam. "Living with Climate and State Fragility in a 'Chaotic Paradise': Securitized Livelihoods in the Philippines' Cotabato River Basin." *Climate Risk*.

19 Ibid.

20 Crisis Group. "Southern Philippines: Making Peace Stick in the Bangsamoro." Accessed June 21, 2024. <https://www.crisisgroup.org/asia/south-east-asia/philippines/331-southern-philippines-making-peace-stick-bangsamoro>. Adam, Jeroen. "Bringing Grievances Back In: Towards an Alternative Understanding of the Rise of the Moro Islamic Liberation Front in the Philippines." *Bijdragen tot de Taal-, Land- en Volkenkunde / Journal of Humanities and Social Sciences of Southeast Asia* 174, no. 1 (January 2018): 1-23. <https://doi.org/10.1163/22134379-17401001>.

These clashes, along with widespread destruction of infrastructure, such as in the 1974 Battle of Jolo and the 2017 Siege of Marawi, have severely impacted the population's livelihoods and contributed to the region's deep poverty and underdevelopment.²¹ The conflict has had profound impacts on the population, including displacement, loss of life, and disruption of livelihoods.²² Prolonged periods of armed conflict have made BARMM one of the poorest regions in the country, with high poverty incidence and limited access to basic services.²³

BARMM's young and growing population, where 21 percent of individuals are between the ages of 15-19,²⁴ is particularly affected by these conditions, as high poverty rates and economic instability limit educational and employment opportunities, often forcing them into low-paying or informal jobs.²⁵ Frequent natural disasters disrupt schooling and exacerbate fragile infrastructure, making consistent education challenging.²⁶ Moreover, the lack of economic opportunities and the presence of armed groups increase the risk of youth being recruited into armed groups or getting involved in violent activities.²⁷ Poor access to healthcare services and the mental distress of living in a conflict and disaster-prone area further compromise their health and well-being, hindering their development and prospects.²⁸

In recent years, significant strides have been made towards peace and autonomy with the signing of the Comprehensive Agreement on the Bangsamoro (CAB) in 2014 which represents the culmination of decades of peace negotiations aimed at addressing the demands of the Moro people for self-determination and autonomous rule. The CAB led to the subsequent establishment of BARMM in 2019.²⁹ The BARMM government is now responsible for the region's governance, with a mandate to promote development, uphold justice, and ensure lasting peace.³⁰

The transition to autonomous governance is an ongoing process, with challenges related to political stability, governance capacity, and the reintegration of former combatants. Nonetheless, the establishment of BARMM represents a significant step towards achieving sustainable peace and development in the region. The lingering effects of decades of conflict, combined with socio-economic challenges and environmental threats, underscore the need for targeted interventions that address the unique vulnerabilities of youth in BARMM. Understanding the interconnected nature of these issues is crucial for developing effective policies and programs that can foster resilience and promote sustainable development.

- 21 Antonio Montalvan II, "Jolo and Marawi: A Historic Recurrence," VERA Files, July 19, 2021, accessed September 2024, <https://verafiles.org/articles/jolo-and-marawi-historic-recurrence>.
- 22 Lingga, Abhoud Syed. *Peace Is for Everyone: Bangsamoro Stories of Hope, Survival, Pain, and Resilience*. Institute of Bangsamoro Studies, 2016.
- 23 Crisis Group. "Southern Philippines: Fostering an Inclusive Bangsamoro." February 17, 2022. <https://www.crisisgroup.org/asia/south-east-asia/philippines/southern-philippines-fostering-inclusive-bangsamoro> (accessed July 9, 2024).
- 24 University of the Philippines Population Institute. 2021 Young Adult Fertility and Sexuality Study Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) Profile. 2021. <https://www.uppi.upd.edu.ph/sites/default/files/pdf/yafs5-regional-profiles-BARMM.pdf>.
- 25 Anderson, Kirsten. "Migration and Child Protection Responses: Responses to the Protection Needs of Internally Displaced Children and Families in Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), the Philippines." UNICEF, European Union, November 2022.
- 26 Hallegatte, Stephane, Adrien Vogt-Schilb, Julie Rozenberg, et al. "From Poverty to Disaster and Back: A Review of the Literature." *Economics of Disasters and Climate Change* 4 (2020): 223–47.
- 27 Bacani, Benedicto R. "Youth Radicalization and Mitigation in Southern Philippines." In *Terrorist Rehabilitation and Community Engagement in Malaysia and Southeast Asia*, 2019.
- 28 World Health Organization. "Accessing Essential Health Services in Fragile, Conflict-Affected, and Vulnerable Settings." <https://www.who.int/activities/accessing-essential-health-services-in-fragile-conflict-affected-and-vulnerable-settings>.
- 29 "TIMELINE: The Bangsamoro Peace Process." Philippine News Agency. Accessed June 21, 2024. <https://www.pna.gov.ph/articles/1059598>.
- 30 "BARMM | Central Online Portal." Accessed June 21, 2024. <https://barmm.ph/about.html>.

2. Methodology and Case Selection



2.1. RESEARCH MOTIVATION

BARMM is characterized by its rich cultural diversity, historical conflicts, and significant vulnerability to climate change and environmental degradation. The region's marginalized youth, particularly those from indigenous and minority communities, face compounded challenges due to these intersecting factors. Studying BARMM provides critical insights into how climate change, environmental issues, and ongoing conflicts uniquely affect marginalized youth, offering valuable lessons for similar contexts globally.

2.2. CASE SELECTION CRITERIA

The selection of specific cases within BARMM was guided by several criteria to ensure the study's relevance and comprehensiveness. The three locations chosen—Labungan, Datu Odin Sinsuat; Datu Saudi Ampatuan; and Marawi City—provide a comprehensive understanding of the diverse conflict dynamics, environmental challenges, and social fragilities in the region. Each location was selected based on its unique characteristics and the profiles of the youth participating in the study.

In these locations, FGDs and KIs were conducted with youth from various socio-economic backgrounds, ethnic groups, and those directly affected by conflict and environmental changes. This diverse yet focused examination provides a comprehensive and nuanced understanding of the unique challenges faced by marginalized youth in BARMM. The insights gained from this approach are essential for developing effective policy and intervention strategies that are sensitive to the diverse needs of the region's youth.

- **Labungan, Datu Odin Sinsuat, Maguindanao del Norte**, was chosen for its representation of the Teduray, a non-Moro indigenous group. The presence of this group is significant as they have faced displacement due to ongoing conflicts. Since September 2023, internally displaced persons (IDPs) from this group have been living in a school transformed into an evacuation center. Understanding the experiences of the Teduray youth, who are navigating the challenges of displacement and conflict, is crucial for the study.
- **Datu Saudi Ampatuan, Maguindanao del Sur**, part of the "SPMS Box" composed of the towns of Salbu, Pagatin, Mamasapano, and Shariff Aguak, which are recognized by the military as strongholds of armed groups, was selected due to the presence of horizontal (*rido* or clan feuds) and vertical conflicts (insurgencies involving armed groups and government forces).³¹ This area exemplifies the intersection of local disputes, such as land and resource conflicts, and broader political tensions involving various armed groups and state authorities. The youth in this region face compounded challenges due to the layered nature of these conflicts, making it a critical area of study to understand the complex impacts on their lives and futures.
- **Marawi City, Lanao del Sur** was included to understand the long-term impacts of large-scale conflict on youth and community resilience. In 2017, the Marawi Siege - which pitted Philippine security forces against militants affiliated with the Islamic State and local terrorist organizations such as the Maute and Abu Sayyaf groups in a five-month-long battle - resulted in significant destruction and displacement, affecting the city's infrastructure and residents' mental health and well-being.³² Beyond the conflict, environmental issues such as deforestation, land degradation, and increased flooding due to the loss of vegetation have compounded the challenges.³³ The city's proximity to Lake Lanao, a critical natural resource, adds another layer of complexity, as the conservation of this lake is crucial for local livelihoods and biodiversity.³⁴ Studying the resilience strategies of Marawi's youth provides valuable insights into coping mechanisms, recovery processes, and the sustainable management of natural resources in a post-conflict setting.

31 Cagoco-Guiam, Rufa. "Exacerbated Precariousness." INQUIRER.net. June 2020. <https://opinion.inquirer.net/130345/exacerbated-precarioussness>.

32 Amnesty International. "Philippines: 'Battle of Marawi' Leaves Trail of Death and Destruction." November 17, 2017. <https://www.amnesty.org/en/latest/news/2017/11/philippines-battle-of-marawi-leaves-trail-of-death-and-destruction-2/>.

33 Mero, Danilo C. "Financing Community-Based Watershed Reforestation in the Philippines." AaoFri-Forest. Marawi City, Philippines: Mindanao State University, December 15, 2003.

34 Keough Editor. "Rebuilding Marawi City: Linkages of Peacebuilding, Environment, and Development." Keough Insider. December 2, 2019. <https://sites.nd.edu/keough-insider/2019/12/02/rebuilding-marawi-peacebuilding/>.

Hansel, Carmelita, and Erlvine B. Metillo. "Efforts towards the Management of Lake Lanao and Its Watershed." ResearchGate. March 16, 2016. https://www.researchgate.net/publication/305984302_Efforts_towards_the_management_of_Lake_Lanao_and_its_watershed.

2.3. RESEARCH DESIGN, APPROACH, DATA COLLECTION AND ANALYSIS

This study employs a mixed-method research design, combining qualitative and quantitative approaches to ensure a comprehensive understanding of the experiences and perceptions of marginalized youth in BARMM. The research process included three focus group discussions, five key informant interviews (KIIs), and online surveys.

The FGDs were conducted across different socio-economic backgrounds and ethnic groups in BARMM, with a total of 22 participants aged between 20 and 43 years old. Each discussion centered around youth and community members' experiences with climate change, environmental degradation, and the ongoing conflict. The first FGD in Labungan brought together teachers, students, a security guard, a licensed criminologist, and a graduating student—all involved in education, youth empowerment, and community security. The second FGD in Datu Saudi Ampatuan included Barangay Health Workers (BHWs), Sangguniang Kabataan (SK) officials³⁵, and students who are actively engaged in health education, community support during conflicts, and youth advocacy. In Marawi, the third FGD involved students from disciplines such as engineering, social work, and psychology, who are particularly active in environmental advocacy, waste management promotion, and educational leadership.

In total, the FGDs involved 22 participants: 6 from Marawi (4 males, 2 females, aged 20-22), 8 from Labungan (5 males, 3 females, aged 21-43), and 8 from Datu Saudi Ampatuan (3 males, 5 females, aged 21-38).

In addition to the FGDs, five KIIs were conducted with stakeholders such as local leaders, policymakers, and experts to gain contextual understanding and expert perspectives on the issues at hand. The key informants included a policy researcher and cultural worker focusing on language documentation in indigenous communities, a legislative staff officer involved in youth organizations and crisis management, an official from the BARMM Ministry of Environment, Natural Resources, and Energy (MENRE) addressing climate and conflict issues, a commissioner of the Commission on Human Rights (CHR) representing the Indigenous People (Teduray), and the dean of the College of Forestry at a local university who leads forestry education and environmental initiatives. These interviews, involving 5 individuals (4 males and 1 female, aged 30-63), contributed significant expertise on the issues faced by marginalized youth in the region.

To broaden the scope of the research, online surveys were administered to 179 participants using Google Forms and distributed via Facebook. The respondents, primarily young individuals under the age of 30 (156 participants, or 87%), were from different provinces and cities within BARMM. The location distribution was as follows:

35 The Sangguniang Kabataan (SK) is a local youth council in the Philippines, established to represent the interests of young people in governance. It consists of elected officials aged 18 to 24 who are tasked with creating and implementing youth-related programs and projects at the barangay (village) level. The SK aims to involve youth in community development and decision-making processes.

TABLE 1 | Locale Distribution of Online Survey Respondents

LOCATION	COUNT	PERCENTAGE
Cotabato City	47	26%
Tawi-Tawi	32	18%
Lanao del Sur	30	17%
Maguindanao del Norte	28	16%
Maguindanao del Sur	22	12%
Basilan	9	5%
Outside BARMM Areas	6	3%
Sulu	3	2%
Special Geographic Areas (63 barangays ³⁶ from North Cotabato that opted to join BARMM after the 2019 plebiscite.)	1	1%

The survey sample was predominantly female (111 participants, or 62%) and included a majority of students (111 participants, or 62%), reflecting a highly educated demographic with significant representation from bachelor's degree holders (67 participants, or 37%) and those with some college education (63 participants, or 35%). The higher proportion of female participants may result from their active involvement in community and educational initiatives, making them more likely to engage in studies on social and environmental issues.

The data analysis process involved both qualitative and quantitative techniques. Thematic analysis was used to identify and interpret patterns and themes from the FGDs and KIIs, providing a deep understanding of the complex interactions between climate change, environmental degradation, and conflict. Quantitative analysis of the survey data helped identify trends and correlations, offering a detailed demographic profile of respondents and quantifying their perceptions and experiences.

36 A barangay is the smallest administrative division in the Philippines, similar to a village, district, or ward. It serves as the basic unit of local government, with its own set of elected officials responsible for governing and providing services to the community.

3. Analysis of Research Results



3.1. YOUNG PEOPLE'S PERCEPTIONS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT

Survey data indicates that 84 percent of respondents have noticed increased temperatures, 59 percent have observed droughts, and 45 percent have witnessed deforestation and flooding. These climatic and environmental changes may contribute to existing conflicts and increase the risk of new conflicts. For example, climate-induced resource scarcity, such as water and arable land, intensifies competition and can lead to violent disputes.

Interviews with local authorities and community leaders reveal that extreme heat and unpredictable rainfall patterns are causing significant livelihood challenges across various regions in BARMM. For instance, temperatures in Maguindanao have reached unprecedented highs of up to 44°C, severely impacting agricultural productivity. According to an official from the Ministry of Environment, Natural Resources, and Energy of BARMM, deforestation due to logging and inappropriate reforestation practices has led to soil erosion and biodiversity loss. These environmental issues, combined with pollution from improper solid waste management and mining activities, contribute to resource scarcity and social tensions.

In the survey, 57 percent of respondents reported changes in water supply, 54 percent experienced health issues, and 38 percent faced loss of income due to environmental changes. Interviews with participants in focus group discussions highlighted that increasingly severe El Niño conditions over the past few decades have resulted in more intense and prolonged water scarcity in Maguindanao, preventing crop planting and exacerbating economic pressures. In Marawi, the combination of increased pollution and higher temperatures in recent years has affected student concentration and business operations. For example, one participant noted, *“The heat is unbearable, and it makes it difficult to concentrate on studies or even run our small businesses.”* A youth participant in Datu Saudi Ampatuan expressed concerns about water scarcity. *“Our crops are failing because of the lack of water. This has made it hard for us to sustain our families and has led to more conflicts over land.”*

3.2. INFLUENCE OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON CONFLICTS

FGD participants from different areas highlighted the profound impact of natural disasters and ongoing conflicts on their communities. In Datu Saudi Ampatuan, a local farmer expressed the compounding challenges brought by droughts:

“The droughts have not only destroyed our crops but have also increased tensions in our community. We argue more frequently over access to water, and this sometimes leads to violent disputes.” The situation is exacerbated for livestock owners, as another participant shared, *“When the droughts hit, our livestock suffer too. It’s heartbreaking to watch our animals weaken because we can’t provide enough water or food for them. This leads to more stress within the community, as we depend on these animals for our livelihood.”*

Similarly, in Labungan, the frequency of evacuations due to ongoing conflicts has intensified competition over scarce resources. One participant highlighted the struggles during these evacuations: *“When floods force us to evacuate, our children miss school, and the cramped, unsanitary conditions make us prone to illnesses, leading to further stress and conflict over scarce resources.”* The impact of Typhoon Paeng in October 2022 further complicated life in Labungan, as a local teacher noted:

“The flooding disrupted our farming activities and made us more vulnerable to diseases. We see more children getting sick, and the lack of medical facilities makes it hard to cope. This adds to the frustrations and tensions among families.”

3.3. COMBINED IMPACT OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT ON YOUNG PEOPLE

In Marawi, the ongoing conflicts have led to repeated displacements, creating a deep sense of uncertainty among the residents. A young community leader shared the emotional toll of these evacuations:

“With the ongoing conflicts, many of us have had to leave our homes multiple times. Every time we evacuate, we lose more of our belongings, and it feels like we are starting over again each time. The uncertainty and fear are overwhelming, especially for the younger generation.”

Marginalized youth in BARMM are particularly vulnerable to the compounded impacts of climate change, environmental degradation, and conflict. Young men and women experience these pressures differently, with young women facing higher risks of gender-based violence and exclusion from conflict resolution processes. For instance, the journey to collect water during droughts can expose them to harassment or violence, as traditional safe pathways may no longer be accessible. A participant from Datu Saudi Ampatuan shared, *“When there’s no water... it’s difficult because even just taking a bath, washing clothes, and finding drinking water is hard. For men, they can bathe without clothes, but for women, it’s much harder as they have to fetch water from far away.”*

In evacuation centers, cramped and unsanitary conditions, combined with a lack of privacy, can lead to an increase in gender-based violence. A young woman from Labungan shared that, *“During evacuations, we are all crammed into small spaces, and it becomes very unsafe for us at night.”* Another participant emphasized the lack of privacy and constant fear, stating, *“The lack of privacy in these conditions makes it difficult, especially for women. The fear of harassment or worse is always in our minds.”*

Environmental pressures exacerbate these risks, as disasters and resource scarcities often lead to displacement and unstable living conditions, where women are more vulnerable to exploitation and abuse. Socioeconomic status and ethnicity further compound these vulnerabilities, as marginalized ethnic groups often have less access to resources and support systems. A participant from Labungan mentioned that economic challenges and limited access to education have forced many to prioritize survival over education and long-term planning.

The survey data shows that 66 percent of respondents reported psychological or emotional stress, 63 percent experienced disruption to education, and 41 percent faced loss of employment or job opportunities due to conflict. Youth in flood-prone areas have been forced to migrate, disrupting their education and economic opportunities. Increased absenteeism from schools and health issues like rashes are common among youth due to extreme heat. A professor at a local university highlighted that the extreme heat prevents students from attending classes regularly, which affects their education and future prospects.

These accounts illustrate the complex interplay between environmental challenges and socio-political conflicts, each exacerbating the vulnerabilities of these communities.

3.4. RESPONSES TO THE INTERCONNECTED DYNAMICS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION, AND CONFLICT

3.4.1. YOUTH RESPONSES TO CRISES

Despite the challenges, marginalized youth in BARMM are actively responding to the issues posed by climate change, environmental degradation, and conflict through various initiatives. Youth-led community actions, such as local reforestation projects in Labungan and Marawi and community-based disaster risk reduction programs in Datu Saudi Ampatuan, are examples of how young people are taking the lead in addressing these issues within their own communities. These projects are often personal initiatives, tailored to the specific needs and circumstances of their areas, reflecting the youth's commitment to making a difference in their immediate surroundings. While these efforts may be localized, they play a crucial role in building resilience and fostering a sense of agency among young people in BARMM.

The survey indicates that 64 percent of respondents have participated in community clean-up initiatives, 55 percent attended educational programs on climate change, and 47 percent involved in tree planting or reforestation activities. These activities can be led and organized by youth leaders and youth organizations, local youth councils, local government units, national government agencies, schools, and civil society organizations (CSOs). Successful initiatives often receive strong support from community and family networks, local leaders, and external organizations.

For example, reforestation projects that engage former combatants in some of their former camps in Maguindanao del Norte have shown promise in restoring degraded lands and providing livelihoods. A youth participant in Labungan mentioned a project where they planted over 1,300 mahogany tree seeds to create a human-made forest, demonstrating proactive engagement in environmental conservation. Similarly, students in Marawi engaged in projects selling paper straws and bamboo straws to reduce plastic waste and promote environmental awareness, particularly focusing on protecting Lake Lanao.

However, the support for these initiatives is not always equally distributed, as traditional gender norms can sometimes hinder the participation of young women. In some communities, young women face additional challenges in gaining the same level of support as their male counterparts. This is particularly evident in projects that require public visibility or physical labor, where societal expectations often limit women's involvement. For instance, a female participant from Labungan noted the difficulty in balancing community engagement with household responsibilities, which are often prioritized over external activities. Additionally, in some areas in Maguindanao, families are more protective of young women, limiting their participation in initiatives that are deemed risky or unsafe, such as those requiring travel or working in remote locations.

In addition to these societal challenges, limited resources and lack of institutional support also hinder the sustainability of these initiatives. Institutional support, typically provided by local and national governments and CSOs, is crucial for securing venues, transportation, permits, and connections to relevant communities. This support is also essential for training, capacity-building, and ensuring the long-term viability of these projects.

For example, in the FGDs, participants highlighted the difficulties in sustaining community clean-up drives and reforestation projects without adequate backing from local government and organizations. A former Sangguniang Kabataan Chairman from Labungan mentioned:

“Our efforts to clean and plant trees are often short-lived because we do not have enough support or resources to maintain them.”

This lack of sustained support hampers the effectiveness and longevity of youth-led environmental and community initiatives, further exacerbating the vulnerabilities faced by marginalized youth in BARMM.

3.4.2. POLICY AND PROGRAMMATIC RESPONSES

Existing policies and programs in BARMM, such as the Bangsamoro Organic Law³⁷, the UNDP-initiated SHIELD Program³⁸, and various community-based initiatives like the Camp-based Forest Management (CBFM) in former MILF camps³⁹, along with the Integrated Bangsamoro Greening Program (IBGP)⁴⁰, and climate adaptation efforts such as those led by USAID⁴¹, are all designed to bolster the region’s resilience to climate impacts and advance sustainable development.⁴² These initiatives collectively aim to enhance environmental sustainability, restore ecosystems, and empower local communities to adapt effectively to the challenges posed by climate change.

Despite these efforts, significant gaps remain. Many initiatives lack a focus on marginalized youth and fail to integrate gender-responsive approaches. There is a need for more inclusive decision-making processes that actively involve youth and marginalized communities in planning and implementation.

Survey results indicate that 46 percent of respondents see the need for more environmental protection initiatives, 45 percent call for more educational opportunities, and 39 percent emphasize the importance of peacebuilding and conflict resolution programs. To better support marginalized youth in BARMM, future strategies should prioritize gender-responsive approaches and inclusive decision-making. This is important because it ensures that the unique needs of young men and women are addressed, enhances participation from all groups, and promotes social cohesion, leading to more effective and sustainable outcomes. Enhancing educational and vocational training programs for youth, particularly in climate adaptation and sustainable livelihoods, is crucial.

- 37 The Bangsamoro Organic Law (BOL) establishes the Bangsamoro Autonomous Region, providing a framework for governance, autonomy, and sustainable development in BARMM. The full text of the law is available at https://lawphil.net/statutes/repacts/ra2018/ra_11054_2018.html.
- 38 The Strengthening Institutions and Empowering Localities against Disasters and Climate Change (SHIELD) program, initiated by UNDP and UN-Habitat, focuses on building local capacities to reduce disaster risks and enhance climate resilience in BARMM. More information is available at <https://unhabitat.org.ph/shield/>.
- 39 Community-Based Forest Management (CBFM), launched in 2022 with UNDP support, transforms former MILF camps into sustainable forest areas, integrating forestry with peacebuilding and providing local communities with sustainable livelihoods. More details can be found at <https://www.facebook.com/media/set/?vanity=MENREBARMM&set=a.512425730926247>.
- 40 The Integrated Bangsamoro Greening Program (IBGP), established by Executive Order No. 0007 (2020), hires former combatants as “Palaw Rangers” to plant 171.2 million trees across 159,000 hectares in BARMM. More details at <https://philippines.un.org/en/88707-barmm-fighters-forest-rangers-and-farmers>.
- 41 In March 2023, USAID launched initiatives in BARMM, including a Php15-million Beginning Reading Program and the deployment of Automated Weather Stations (AWS) to enhance disaster preparedness. More details at <https://www.usaid.gov/philippines/press-releases/mar-17-2023-us-assistance-boost-education-and-climate-resilience-barmm>.
- 42 Umngan, Abdul-Jalil S. “State of Forests in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), Philippines: Opportunities and Challenges.” 2024. Unpublished manuscript, Ministry of Environment, Natural Resources, and Energy, Bangsamoro Autonomous Region in Muslim Mindanao.

Additionally, strengthening partnerships between local communities, government agencies, and international organizations can provide the necessary support and resources to scale up successful youth-led initiatives.

Financing these youth programs is also crucial for their long-term success. During FGDs, participants expressed concerns about the inconsistent funding that hinders the sustainability of their initiatives. For example, a youth leader from Marawi pointed out the difficulty of securing long-term financial support, stating, *“It’s hard to keep our projects going when we don’t have the funds. We start strong, but without money, we can’t maintain our momentum.”* This sentiment was echoed in a key informant interview, where it was noted that localized funding tailored to the specific needs of youth projects in BARMM could significantly enhance their impact. Ensuring that funding mechanisms are accessible and aligned with the actual needs of youth in these areas could greatly improve the effectiveness and reach of youth-led programs.

Further data from focus group discussions and key informant interviews highlight specific examples of gaps in other forms of support. Youth in Labungan expressed frustration over the lack of institutional support for their reforestation projects. One participant mentioned, *“We started planting trees to help our community, but without proper tools and continuous support, it’s hard to keep the momentum going.”* Similarly, in Marawi, youth-led clean-up drives recently conducted often struggle due to insufficient funding and logistical support. A participant noted:

“We organized clean-up drives, but we need more than just our efforts to make a lasting impact.”

A university professor emphasized the importance of integrating youth perspectives into policymaking, noting:

“Youth have innovative ideas and a unique understanding of their challenges. Including them in decision-making processes can lead to more effective and sustainable solutions.”

These examples underscore the critical need for targeted interventions that address the specific needs and vulnerabilities of marginalized youth in BARMM. Providing adequate resources, institutional backing, and platforms for youth participation can make policies and programs more inclusive and effective in fostering resilience and sustainable development in the region.

4. Conclusion



This research on climate change, environmental degradation, and conflict in the BARMM highlights the intricate relationships between these factors and their profound impacts on marginalized youth in the region. The study reveals significant climatic changes in the region, including increased temperatures, unpredictable rainfall patterns, and more frequent natural disasters. These climatic changes and environmental degradation have led to severe challenges such as displacement, food insecurity, and economic instability, exacerbating existing conflicts and creating new tensions over scarce resources. While all youth in BARMM face these challenges, young women are particularly vulnerable due to the heightened risks of gender-based violence, lack of privacy, and exclusion from decision-making and conflict resolution processes. The data suggests that while these impacts are significant, the disproportionate effects on young women require further exploration to fully understand the underlying causes and the extent of these challenges.

Despite these formidable challenges, youth in BARMM are actively participating in community-led efforts to address climate and environmental impacts and build resilience. However, they often encounter obstacles such as limited resources and a lack of institutional support. To enhance these efforts, it is crucial for policymakers and leaders to deepen their understanding of how conflict, climate change, and natural disasters intersect in BARMM and affect the lived experiences of young people.

Moreover, there is a critical need to strengthen institutional capacities to support youth-led initiatives, ensuring they are equipped to tackle the region's unique challenges and contribute to sustainable development. Policymakers must continue to explore and address the specific challenges faced by youth in this context, considering the broader implications of these risks on gender issues and educational disruption, which extend beyond immediate effects like displacement or food scarcity.

As BARMM prepares for its first elections in 2025, the active engagement of young people in decision-making and political participation becomes even more essential. However, this engagement must extend beyond elections; young people should be supported as innovators and leaders in addressing the nexus of conflict and climate change. This requires a collaborative approach, where institutions work with youth as partners and co-implementers in solutions, rather than merely as beneficiaries or resource persons.

