

**DEALING WITH DOUBLE DISASTERS:
POLICY, PROGRAM, AND CAPACITY INTERVENTIONS TO
ADDRESS THE IMPACT OF CLIMATE-INDUCED
DISASTERS ON GENDER-BASED VIOLENCE, CHILD
MARRIAGE, AND SERVICES FOR SEXUAL AND
REPRODUCTIVE HEALTH IN INDONESIA**

A Capstone

**Submitted to the Master of Public Policy Specializing on Climate Change
Program at the Faculty of Social Sciences in partial fulfillment of the
requirements for the degree of**

Master of Public Policy (M.P.P.)



by:

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**UNIVERSITAS ISLAM INTERNASIONAL INDONESIA
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Dealing with the double disasters: Policy, program, and capacity to address the impact of climate-induced disasters on gender-based violence, child marriage, and services for sexual and reproductive health in Indonesia

A Capstone

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ABBREVIATIONS

ANC	: Antenatal Care
AICHR	: ASEAN Intergovernmental Commission on Human Rights
BADILAG	: <i>Badan Peradilan Agama</i> (Religious Courts Agency)
BEmONC	: Basic Emergency Obstetric and Newborn Care
BNPB	: <i>Badan Nasional Penanggulangan Bencana</i> (National Disaster Management Authority)
BPBD	: <i>Badan Penanggulangan Bencana Daerah</i> (Local Disaster Management Agency)
CEmONC	: Comprehensive Emergency Obstetric and Newborn Care
DRR	: Disaster Risk Reduction
EmONC	: Emergency Obstetric and Newborn Care
EMT	: Emergency Medical Team
FGM	: Female Genital Mutilation
GBV	: Gender-Based Violence
ICM	: International Confederation of Midwives
IEC/KIE	: Information, Education and Communication / <i>Komunikasi, Informasi dan Edukasi</i>
MISP	: Minimum Initial Service Package
MoH	: Ministry of Health
MoHA	: Ministry of Home Affairs
MoWECP	: Ministry of Women's Empowerment and Child Protection
NTT	: Nusa Tenggara Timur (East Nusa Tenggara)
PHRRT	: Public Health Rapid Response Team
PONED	: <i>Pelayanan Obstetri Neonatal Emergensi Dasar</i>
PONEK	: <i>Pelayanan Obstetri Neonatal Emergensi Komprehensif</i>
PLO	: Program Learning Outcome
PP KBG PP	: <i>Pencegahan dan Penanganan Kekerasan Berbasis Gender dan Pemberdayaan Perempuan</i> (Subcluster for Prevention and Handling of GBV and Women's Empowerment)
PWS KIA	: <i>Pemantauan Wilayah Setempat Kesehatan Ibu dan Anak</i> (Local Monitoring System for Maternal and Child Health)
RHAT	: Rapid Health Assessment Team
RPB	: <i>Rencana Penanggulangan Bencana</i> (Disaster Management Plan)
RIPB	: <i>Rencana Induk Penanggulangan Bencana</i> (Disaster Management Master Plan)
SDGs	: Sustainable Development Goals
SRH	: Sexual and Reproductive Health
STI	: Sexually Transmitted Infections
UNDRR	: United Nations Office for Disaster Risk Reduction
UNFPA	: United Nations Population Fund
UNICEF	: United Nations Children's Fund

UPTD *PPA* : *Unit Pelaksana Teknis Daerah Perlindungan Perempuan dan Anak* (Regional Technical Implementation Unit for the Protection of Women and Children)

WHO : World Health Organization

EXECUTIVE SUMMARY

Indonesia, due to its geographic and climatic conditions, is highly vulnerable to climate-induced disasters such as floods and droughts. These disasters not only result in physical and economic damage but also deepen existing social inequalities, particularly for women and girls. This capstone report investigates how climate-related hazards exacerbate gender-based violence (GBV), child marriage, and disruptions in sexual and reproductive health (SRH) services in Indonesia. Drawing on policy analysis and targeted case studies from West Java and East Nusa Tenggara, the study aims to assess current policy frameworks, identify critical gaps, and propose actionable recommendations.

This capstone project addresses three critical policy issues. First, it examines how current policies respond to the increased risks of GBV and child marriage during floods and droughts, and whether these risks are adequately integrated into contingency planning. Second, it investigates gaps in health crisis management policies, particularly regarding maternal and neonatal care, and evaluates the extent to which emergency obstetric and newborn services are prioritized during disasters. Third, it explores whether Indonesia's midwifery education and health workforce policies adequately prepare midwives with the climate-responsive skills necessary to sustain SRH services during emergencies. This study relied on a narrative literature review, document analysis, and a review of midwifery competencies. The analysis examined whether these align with international standards, such as the Inter-Agency Minimum Standards for Gender-Based Violence in Emergencies, the Minimum Initial Service Package (MISP) for reproductive health, and the International Confederation of Midwives' Essential Competencies.

Case studies from West Java and East Nusa Tenggara were selected to highlight the direct and indirect consequences of climate-induced disasters on GBV and child marriage, based on the severity and relevance of climate risks in each province. West Java, provinces with dense populations and categorized by BNPB with high a risk index of flood, has consistently recorded high numbers of flood events alongside some of the nation's highest rates of child marriage. Between 2016 and 2024, data show a sharp rise in GBV and child marriage cases following major floods, illustrating how disasters exacerbate existing vulnerabilities. On the other hand, East Nusa Tenggara represents one of the country's most drought-affected regions and categorized by BNPB with a high drought risk index, where recurrent drought cases have intensified economic hardship and social instability. These patterns suggest that disasters can expose women and girls to heightened risks due to weakened protection mechanisms and economic pressures.

This report also underscores how climate-induced disasters disrupt access to essential SRH services. Floods damage health infrastructure, restrict movement, and compromise care continuity for pregnant women and newborns. The lack of climate-specific emergency planning within existing health crisis policies further undermines service delivery. Critical gaps remain in the mapping of emergency obstetric and neonatal care facilities and the development of referral protocols tailored to climate disasters. Midwives, who serve as the primary providers of SRH services in many rural and disaster-prone areas, remain underprepared to meet the demands of climate emergencies. Their training often lacks components related to disaster response, psychosocial support, emergency coordination, and community outreach. Furthermore, existing professional

guidelines, such as the Midwifery Education Program Guidelines and the National Midwifery Competency Standards, do not yet incorporate climate adaptation as a core skill set, creating a gap between frontline needs and institutional preparedness.

To address these challenges, the report proposes a set of coordinated interventions across policy, programmatic, and capacity domains. At the policy level, the report recommends integrating GBV risks into disaster contingency frameworks, updating the Ministry of Health regulation to include climate-responsive maternal health protocols and referral systems, and revising midwifery education policy to align with ICM climate-related competencies. Programmatic gaps were also identified, including the absence of technical guidance for the PP KBG PP Sub-cluster in contingency planning, limited standard operating procedures (SOPs) for GBV data collection during emergencies, and a lack of integrated mapping and simulation efforts for BEmONC (*PONED*) and CEmONC (*PONEK*) services in high-risk areas. To address these gaps, the report recommends developing technical guidelines for integrating gender-based violence into contingency planning, developing standard operating procedures (SOPs) for sharing disaggregated data on gender-based violence, and implementing joint emergency and EmONC simulation exercises among stakeholders in sexual and reproductive health and disaster response.

For capacity-building, the report underscores the need for targeted training for midwives on emergency preparedness, trauma-informed psychosocial support, and coordination with disaster response teams. The report also recommends involving midwives in national and regional contingency simulations to further enhance their operational preparedness. Developing local institutional capacity for inclusive disaster coordination and risk communication is also prioritized to ensure a more effective frontline response. These interventions are expected to create a more integrated, inclusive, and climate-responsive disaster management system that safeguards the health and rights of women and girls amid increasing climate risks.

CHAPTER I

INTRODUCTION

1.1 Background

Indonesia is highly vulnerable to climate disasters by virtue of its position in the Pacific Ring of Fire, archipelagic geography, and tropical climate (Gan et al., 2021). The conditions make Indonesia vulnerable to different kinds of climate related hazards such as floods and droughts. Indonesia is among the top-third countries in riskiness with all types of flooding and extreme heat being heavily exposed. Such risks are estimated to become more prominent with the change of the climate (World Bank, 2021). Floods cause major displacement of the populations, destruction of infrastructure, and interruptions of basic amenities like education, transportation and health sectors. Although droughts are characterized by severe consequences on the agricultural output, food security, water supplies, and citizen health, especially in rural and agricultural areas (Hameed et al., 2020). As climate change continues to evolve, the frequency of occurrence and heaviness of such disasters is also expected to increase in the existing magnitude and this points towards further strain on existing systems of a disaster response and the current vulnerabilities it holds (Houser, 2022).

Climate disasters can have effects that go beyond only financial and physical harm. The escalation of already-existing gender disparities is a significant but sometimes disregarded effect. Due to pre-existing socioeconomic vulnerabilities and inequities, research consistently demonstrates that women and girls are disproportionately affected by catastrophes. Floods and droughts frequently force people to relocate to makeshift shelters, where the risk of gender-based violence is increased by congestion, a lack of privacy, poor lighting, and weak security (van Daalen et al., 2022). Disasters tend to disrupt livelihoods and educational institutions, which causes additional financial burden to the families. In the insecure post-disaster setting, child marriage becomes a resort for some households method of safeguarding their daughters against recognized danger or as a strategy of economic adjustment mechanism (Pope et al., 2023). These practices reinforce gender inequalities, restrict potential opportunities for young women, in

addition to causing poverty and social exclusion.

Disruption of sexual and reproductive health (SRH) services, including maternal and newborn care, is a major societal impact of climate-related disasters. Such disasters tend to destroy healthcare facilities and damage transportation systems, hence restricting access to basic services like Emergency Obstetric and Newborn Care (EmONC) (Orderud et al., 2022). Although Indonesia has adhered to global standards, such as the Minimum Initial Service Package (MISP), gaps remain in the country's policy environment regarding the integration of PONEC services and referral systems into disaster preparedness and response plans. For example, the integration of maternal and neonatal emergency services in the context of climate-related emergencies is not directly addressed in Minister of Health Regulation Number 2 of 2025 concerning the Provision of Reproductive Health Services (Ministry of Health, 2025). Similarly, the continuity of sexual and reproductive health services during emergencies is not specifically addressed in Minister of Health Regulation Number 75 of 2019 concerning Health Crisis Management, which generally focuses on overall disaster response measures (Ministry of Health, 2019). The public health system's ability to provide life-saving reproductive health services during climate-related emergencies is hampered by a lack of explicit regulatory guidelines, particularly for vulnerable populations such as pregnant women and infants. Ultimately, this condition increases the likelihood of avoidable morbidity and mortality among mothers and newborns (International Confederation of Midwives, 2023).

Midwives are a crucial part of Indonesia's health system. Considering these interconnected challenges, this study seeks to improve the resilience of communities and systems to climate-related disasters, particularly in remote, rural, and environmentally vulnerable areas. They provide primary health care services through antenatal care, delivery assistance, postnatal care, family planning counseling, and community health promotion (Rosa et al., 2021; UNFPA, 2024b). Midwives are often the first and primary point of contact for women during pregnancy and childbirth, particularly during disasters when access to the formal health system is limited (Adnani et al., 2025). Despite their crucial role, midwives in Indonesia often lack the training and skills necessary to adequately respond to

climate-related health emergencies (O'Connell et al., 2024; Ku Carbonell et al., 2024). Although midwifery standards in Indonesia have recently been updated through legislation such as the Omnibus Law on Health No. 17 of 2023, which replaced eleven previous laws, including the Midwifery Law No. 17 of 2024, midwives are still lacking. According to Law No. 4 of 2019, the current midwifery curriculum still lacks the integration of climate adaptation and disaster resilience competencies (Adnani et al., 2021). This deficiency renders midwives incompetent to adequately respond to the impacts of climate disasters on sexual and reproductive health.

Given these interconnected issues, this study seeks to enhance community and systemic resilience to climate-related disasters. By analyzing the relationship between gender-based vulnerability, disrupted health services, and the functioning of frontline health workers such as midwives, the study identifies key policy gaps and provides suggestions for more responsive, inclusive, and flexible disaster preparedness. The main objective is to provide evidence-based policies that improve institutions' capability while guaranteeing the safety and welfare of women, children, and other vulnerable groups.

1.2 Policy-relevant Research Questions

This study explores the intersection of climate change, gender-based violence (GBV), sexual and reproductive health (SRH) and midwifery, in the context of disasters in Indonesia. It focuses on how climate-induced events such as floods and droughts affect vulnerable groups and also examines existing policies related to these issues. The policy research is guided by the following three key questions:

1. How do climate-induced disasters, particularly floods and droughts, influence the risks of GBV and harmful practices such as child marriage, and what strategies, programs, and policies exist or are needed to prevent and address these issues, including through integration into disaster contingency plans?
2. How do climate change-induced disasters, particularly floods, affect maternal and neonatal health services in Indonesia, and what are the policy gaps, program and policy interventions in the provision of emergency obstetric and neonatal

- care as well as maternal and neonatal referral systems during climate disasters?
3. What new skills and capacities do midwives need to contribute to climate adaptation and ensure the sustainability of SRH services, and what program and policy interventions are required to make midwifery more climate-responsive?

1.3 Objectives

This study aims to address the intersecting challenges of gender-based violence (GBV), child marriage, maternal and neonatal health, and sexual and reproductive health (SRH) services. The objectives of the study are as follows:

1. To examine the relationship between climate change-induced disasters, particularly floods and droughts and increased risks of GBV and child marriage, while assessing existing strategies and proposing policy recommendations for integrating GBV prevention into disaster contingency plans.
2. To determine and examine the effects of climate-induced flooding on maternal and neonatal health services in Indonesia, evaluate policy gaps in EmONC and referral systems, and make recommendations to enhance the sustainability and resilience of neonatal and maternal care during disasters.
3. To assess the evolving competencies needed by midwives in the context of climate change and recommend programmatic and policy interventions that integrate climate-sensitive approaches into midwifery training and SRH service delivery in disaster-prone settings.

1.4 Method and Approach

This capstone project adopts a qualitative and policy analysis approach to explore the nexus between climate change, gender-based violence (GBV), sexual and reproductive health (SRH), and delivery of midwifery services in the context of climate-related disasters in Indonesia. The research concentrates on three primary objectives: (1) to examine how GBV and risks of child marriage are handled in disaster contingency planning, (2) to evaluate the influence of climate-related flooding on maternal and neonatal health services and highlight policy gaps in emergency response systems, and (3) to analyze whether midwifery education and workforce Indonesian policies provide midwives with the required

competencies to respond to climate- related emergencies.

To achieve these objectives, the project combines several methods. A narrative literature review was used to examine national and international publications, reports, and policies relevant to GBV, disaster risk, and climate adaptation. A qualitative document analysis was applied to assess existing policy and regulatory documents related to disaster contingency plan, maternal and neonatal health, focusing on possible entry points for GBV mainstreaming and to find gaps in Emergency obstetric and neonatal care (EmONC), particularly BEmONC (*PONED*) and CEmONC (*PONEK*) and referral systems. A scoping review and policy content analysis were also conducted to assess midwifery education guidelines (curriculum) and competency standards in Indonesia, comparing them with the 2024 International Confederation of Midwives (ICM) Essential Competencies, particularly those under Category 1.p, which focuses on care in humanitarian and climate-related crises.

To guide the policy analysis, three criteria were applied: relevance, substance, and coherence. *Relevance* assesses the extent to which a policy addresses existing problems and the needs of vulnerable populations. *Substance* evaluates the technical clarity and completeness of policy content, including definitions, objectives, and mechanisms. *Coherence* analyzes how well a policy aligns with related national and international frameworks.

Table 1. Criteria and Applicability of Policy Analysis

No	Criteria	Description	Regulation Applicability
1	Relevance	Assesses the extent to which the policy addresses existing problems, priorities, and needs of affected populations, especially marginalized or vulnerable groups.	1. MoWECP No.8 of 2024 2. BNPB No.2 of 2023

No	Criteria	Description	Regulation Applicability
2	Substance	Evaluates the depth, clarity, and technical soundness of the policy content, including definitions, objectives, strategies, and implementation mechanisms.	1. MoWECP No.8 of 2024 2. BNPB No.2 of 2023 3. Decree of the Head of the Health Human Resources Development and Empowerment No HK.01.07/1.2/0394/2020 on Guidelines for Organization Midwife Profesional Education Study Program (Curriculum), applicable for Chapter 7. Minister of Health Decree No. HK.01.07/MENKES/1261/2022 on Indonesian Midwifery Competency Standard applicable for Chapter 7.
3	Coherence	Analyzes how well the policy aligns with other national and international policies and frameworks to ensure consistency and integration.	1. BNPB No.2 of 2023 and MoWECP No.8 of 2024 with Inter-Agency GBV Standards & Climate Induced Disaster Relevancies. 2. Indonesia Midwifery Curriculum and Competency Standard with ICM Essential competencies for Midwifery Practice.

To support the analysis, the project applied the OECD DAC–Rio Marker system and the UNDRR guidance on coherence between climate change adaptation (CCA) and disaster risk reduction (DRR) in evaluating the relevance of policy measures. Policies were categorized as fully relevant, partially relevant, or irrelevant to climate-related disasters. The results were also organized according to three stages of disaster management: pre-disaster (preparedness and risk reduction), during a disaster (emergency response), and post-disaster (recovery and reconstruction).

This layered strategy enables the project to map policy gaps and suggest focused, actionable solutions to enhance GBV protection, guarantee SRH service

continuity, and provide midwives with the competencies required to effectively respond to climate-related health crises.

1.5 Scope of Analysis and Report Structure

This report assesses the effects of climate change-related disasters on child marriage and gender-based violence (GBV) in Indonesia between 2016 and 2024. Although the overall assessment includes national trends, case studies in East Nusa Tenggara (drought) and West Java (flood-affected areas) are used to show how local contexts can increase these risks. The report identifies inconsistencies in major regulations, specifically BNPB Regulation No. 2/2023 and MoWECP Regulation No. 8/2024. In addition, this research discusses the consequences of flooding on maternal and newborn health, especially during climate change-related disasters, with an emphasis on integrating Emergency Obstetric and Neonatal Care (EmONC), including Basic Emergency Obstetric and Neonatal Care (BEmONC) and Comprehensive Emergency Obstetric and Neonatal Care (CEmONC), and referral systems. In Indonesia, BEmONC is referred to as PONED (*Pelayanan Obstetri Neonatal Emergensi Dasar*) and CEmONC is referred to as PONEK (*Pelayanan Obstetri Neonatal Emergensi Komprehensif*). This report examines national policies, specifically Ministry of Health Regulation No. 75 of 2019 on Health Crisis Management, which accommodates sexual and reproductive health services. This regulation specifically governs reproductive health services during crises and disasters, including climate crises, and offers a mechanism for managing the situation from pre- to post-crisis, as well as being applicable to the integration of EmONC and referral systems during climate crises such as floods.

This report highlights the need for climate-aware education and policy support to reinforce midwifery practice, with increased climate-related hazards. It also evaluates the role of midwives in disaster-prone areas and the new competencies needed to continue providing sexual and reproductive health (SRH) services during climate-related emergencies.

This report is structured into eight chapters, each designed to build an understanding of the problem and offer actionable recommendations. The structure is as follows:

Chapter 1: Introduction - outlines the background, research questions, objectives, scope, and approach for policy analysis. It establishes the urgent need to examine the gendered impacts of climate disasters in Indonesia, especially given the country's high exposure to floods and droughts and the increasing severity of these hazards under climate change.

Chapter 2: Conceptual Framework - presents the frameworks that guide the study. Two frameworks are introduced: one illustrating the pathways through which climate disasters affect GBV and SRH outcomes, and another showing the key policy, programmatic, and capacity interventions required. These frameworks serve as the foundation for interpreting findings and formulating recommendations.

Chapter 3: Context - provides an overview of the regulation and socio-political context related to GBV, child marriage, SRH, and disaster management in Indonesia. It outlines relevant national regulations, midwifery frameworks, and climate risk profiles that lay the groundwork for policy analysis in later chapters.

Chapter 4: The Impact of Climate-Induced Disasters on GBV, Child Marriage, SRH, and Midwifery - focuses on the observed consequences of floods and droughts. This is also includes case studies: West Java (flood) and East Nusa Tenggara (drought), to demonstrate how climate stress contributes to increased rates of GBV and child marriage. It also examines how flooding disrupts access to maternal health services and affects midwives' ability to deliver care.

Chapter 5: Policy Analysis on Gender-Based Violence, Child Marriage, and Contingency Planning - evaluates the regulatory and institutional mechanisms for addressing GBV and child protection in disaster settings. It assesses the strengths and limitations of MoWECP Regulation No. 8/2024 and BNPB's contingency planning framework, especially in terms of climate relevance and alignment with international GBV standards.

Chapter 6: Policy Analysis of Emergency Obstetric and Neonatal Care and Maternal-Neonatal Referral Systems - focuses on how health crisis management policies address SRH during disasters. This chapter identifies critical gaps in the national health regulations, particularly around EmONC includes BEmONC (*PONED*) and CEmONC (*PONEK*) services and referral systems, and assesses their

alignment with the Minimum Initial Service Package (MISP) for reproductive health in emergencies.

Chapter 7: The New Skills Midwives Need and Policy and Programmatic Interventions - addresses the evolving role of midwives in climate-vulnerable settings. It highlights the urgent need to update midwifery education and policies to reflect climate adaptation competencies, especially in emergency preparedness, psychosocial support, and community-based resilience building.

Chapter 8: Conclusion and Recommendations - synthesizes the main findings and offers policy, programmatic, and capacity-building recommendations. These are intended to inform future efforts by government agencies, humanitarian actors, and development partners to strengthen Indonesia's gender and SRH responsiveness in disaster management.

CHAPTER II

A CONCEPTUAL FRAMEWORK

This chapter outlines the illustrative framework developed to analyze the interconnected impacts of climate change on gender-based vulnerabilities (GBV) and sexual and reproductive health (SRH) service delivery in Indonesia. The framework presents two main pathways through which climate-induced disasters impact gender and health outcomes:

1. GBV and Child Marriage: These threats are escalated during emergencies because heightened vulnerabilities and failures in protection mechanisms. The framework integrates applicable policy and regulatory tools (Ministry of Women Empowerment and Child Protection No. 8/2024 Regulation; BNPB Regulation No. 2/2023), as well as programmatic approaches like inter-agency coordination, joint SOPs, and capacity-building initiatives to prevent and respond to GBV.
2. Disruption of sexual and reproductive health (SRH) services: Climate emergencies are likely to reduce the availability and accessibility of SRH services. This framework underscores the need for policy strengthening (Minister of Health Regulation No. 75/2019), updating the emergency referral framework, and enhancing midwifery training in line with international standards (International Confederation of Midwives Core Competencies). The role of midwives is highlighted as an opportunity requiring targeted interventions in training, regulation, and health system integration.

2.1 Framework on Integrating Gender and SRH Response in Climate-Induced Disaster Management

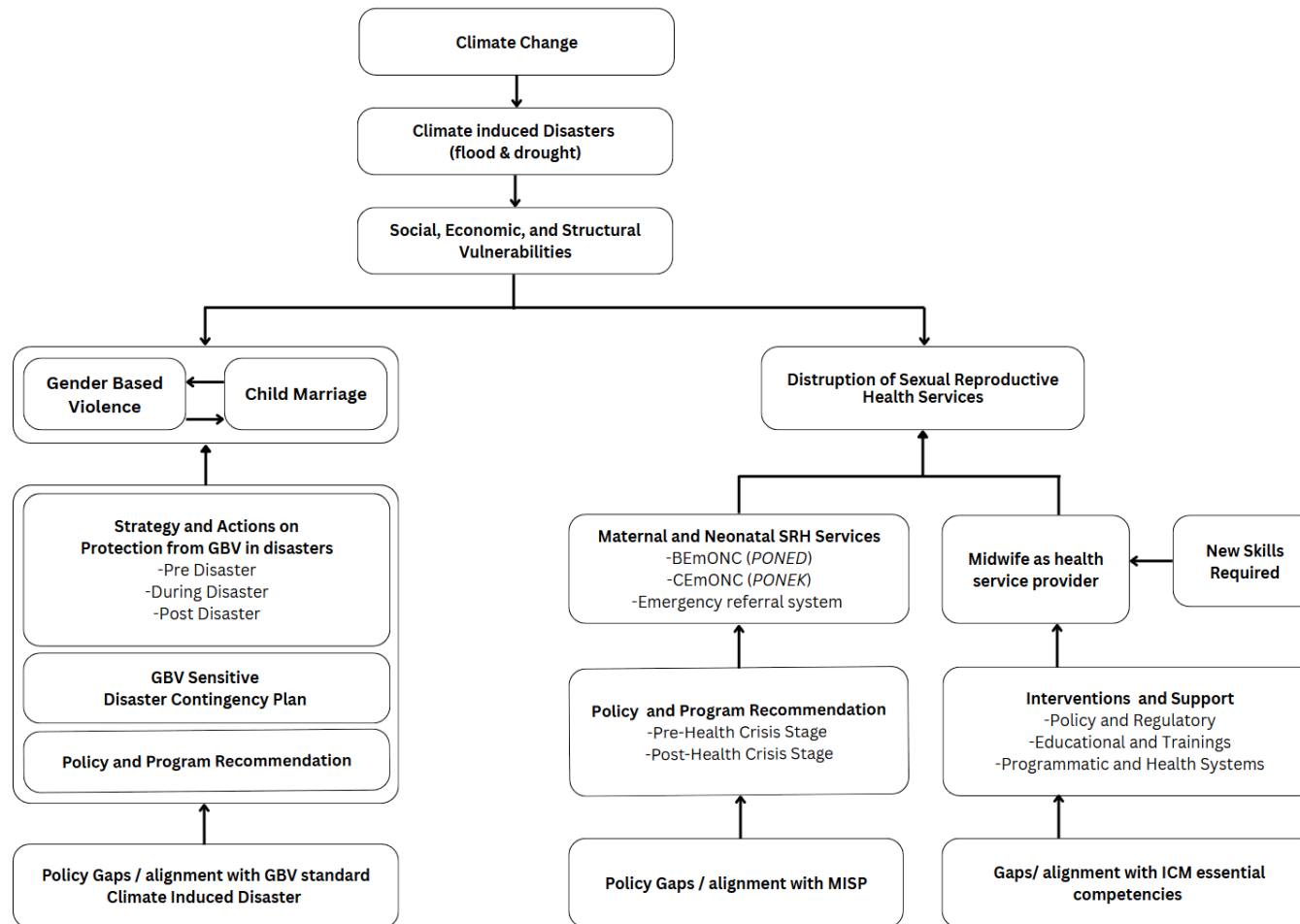


Figure 1: Framework on Integrating Gender and SRH Response in Climate-Induced Disaster Management

2.2 Framework on Policy, Programmatic, and Capacity Interventions for Integrating Gender and SRH in Climate-Induced Disaster Management

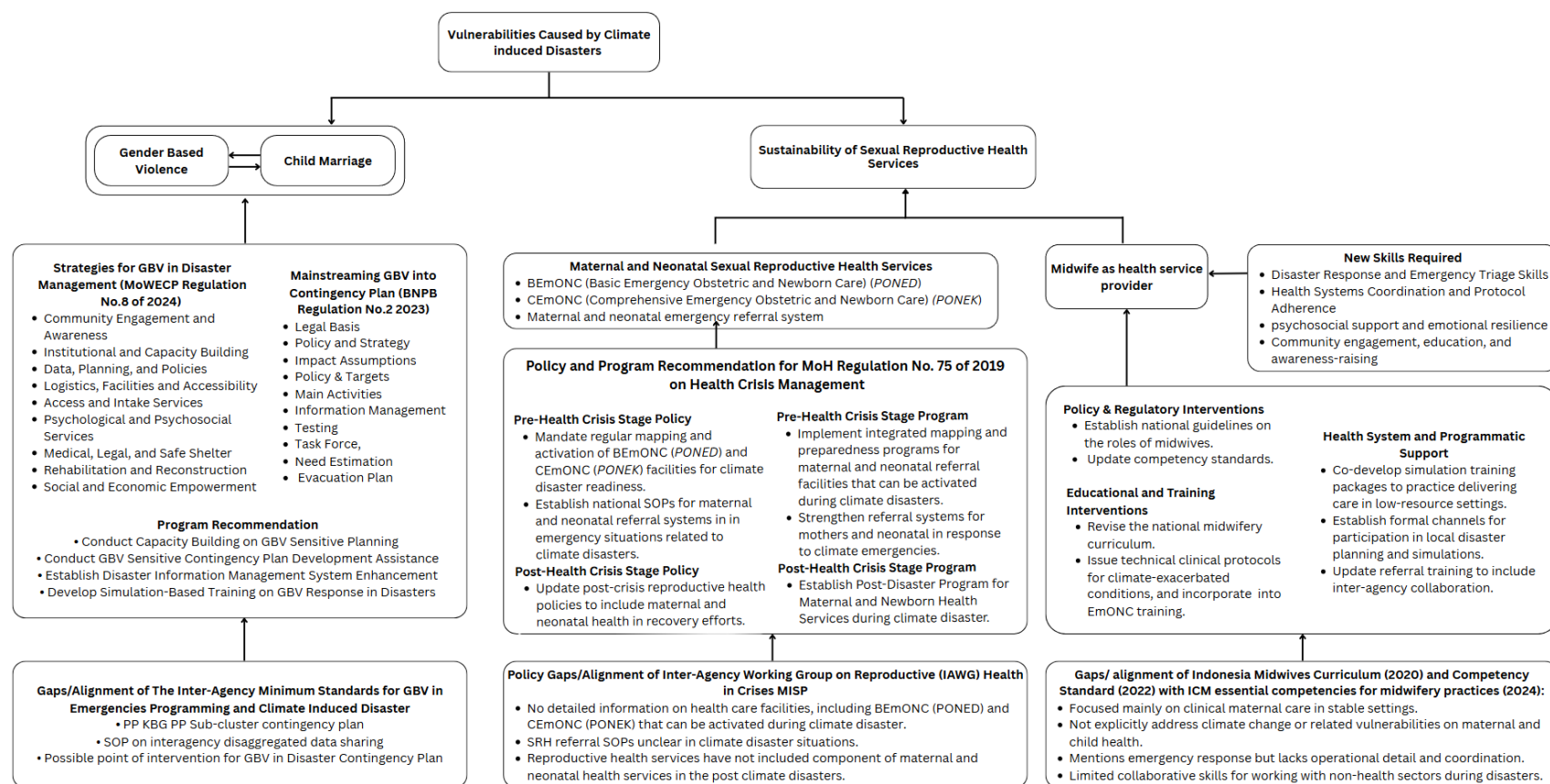


Figure 2. Conceptual Framework on Policy, Programmatic, and Capacity Interventions for Integrating Gender and SRH in Climate-Induced Disaster Management

CHAPTER III

CONTEXT

The contextual foundations for understanding how gender, health, and climate-related Disaster policy intersect in Indonesia are presented in this chapter. It begins by outlining the national policy context concerning sexual and reproductive health (SRH) and gender-based violence (GBV), highlighting the Institutional and legal structures which regulate the provision of healthcare services and protection. Then, with a focus on how these frameworks deal with gendered vulnerabilities, the chapter examines Indonesia's climate and disaster management related disaster policies. It also looks at national strategies for preventing child marriage, maternal and newborn health, and the function of midwives in the larger healthcare system. In order to give geographic, socioeconomic, and climate-related background, the final part provides a brief summary of the two case study regions that were chosen: West Java and East Nusa Tenggara.

3.1 GBV and Sexual and Reproductive Health Policies in Indonesia

In response to the growing threat of climate-related disasters in Indonesia, the integration of gender-based violence (GBV) protection and sexual and reproductive health (SRH) services into disaster preparedness and response has emerged as an urgent policy priority. At the national level, the Presidential Regulation of the Republic of Indonesia Number 55 of 2024 concerning the *Regional Technical Implementation Unit for the Protection of Women and Children (UPTD PPA)* provides a foundational legal framework for organizing integrated protection services across provincial and district/city levels. UPTD PPA serves as a frontline service unit for women and children facing violence, discrimination, or rights violations, offering coordinated support that includes complaint handling, psychosocial services, legal assistance, social rehabilitation, and economic empowerment. Furthermore, the regulation also mandates the establishment of UPTD PPA under the regional agency responsible for women's empowerment and child protection and formalizes service standards, cross-sector coordination, and inter-regional referral mechanisms.

While Presidential Regulation No. 55 of 2024 sets the institutional foundation, this study focuses specifically on two sectoral regulations that are directly relevant to the research objectives: the Regulation of the Minister of Women's Empowerment and Child Protection (MoWECP) No. 8 of 2024 and the Minister of Health Regulation No. 2 of 2025 on the Implementation of Reproductive Health. These regulations are selected due to their substantive relevance to GBV prevention and SRH service provision during disasters, their national authority, and their alignment with global humanitarian standards such as the Minimum Initial Service Package (MISP) and the Inter-Agency Minimum Standards for GBV in Emergencies.

MoWECP Regulation No. 8 of 2024 provides a legal and programmatic framework tailored to addressing GBV in disaster contexts. It is distinct in its scope, as it mandates gender-responsive planning and service provision across the pre-disaster, emergency response, and post-disaster recovery stages. One key mechanism is the establishment of the *PP KBG PP* Subgroup, a multisectoral coordination body tasked with leading *KBG* prevention and response initiatives during emergencies. The regulation also includes a technical annex offering practical implementation tools, such as vulnerability maps, *KBG* risk indicators, and checklists for service coordination, for the benefit of national and subnational stakeholders.

Furthermore, the MISP model for the provision of reproductive health services in humanitarian situations is implemented by Ministry of Health Regulation No. 2 of 2025, making it the most relevant policy tool for reproductive health in emergency situations, particularly those caused by climate-related disasters. The regulation requires that essential services, such as family planning, STI care, maternal and newborn health, adolescent reproductive health, and the prevention and management of sexual violence, be provided immediately after a crisis occurs. This regulation provides structured, crisis-specific guidelines, unlike more general health laws, enhancing Indonesia's capacity to ensure the continuity of vital reproductive health services in the event of a disaster.

3.2 Disaster and Climate-Related Disaster Policies in Indonesia

Indonesia has established several legal and policy frameworks for disaster management to strengthen preparedness, reduce risk, and build resilience. The foundation of this framework is Law No. 24 of 2007 on Disaster Management, which marked a shift from reactive to proactive disaster response. It mandates the creation of the National Disaster Management Authority (BNPB) and Local Disaster Management Agencies (BPBD). Although the law regulates and applies broadly to natural, non-natural, and social disasters, it provides the legal foundation for integrating climate-related risks into national and regional systems.

To operationalize this mandate, the government introduced the Master Plan for Disaster Management 2020–2044 (RIPB) through Presidential Regulation No. 87 of 2020. The RIPB serves as a long-term roadmap for disaster risk reduction (DRR), aligning with the Sendai Framework and national development priorities. It explicitly includes climate change adaptation as a strategic objective and emphasizes inclusive, multisectoral planning. Supporting this, the National Disaster Management Plan (Rencana Nasional PB), as outlined in BNPB Regulation No. 1 of 2025, sets medium-term goals for disaster management and integrates climate-induced risks such as floods, droughts, and forest fires into national-level planning and budgeting.

The inclusion of BNPB regulations, despite their lower legal hierarchy compared to ministerial regulations discussed in Section 3.1, is deliberate. Unlike MoWECP and MoH regulations, which focus on sector-specific responsibilities (protection and health), BNPB regulations are cross-sectoral and operational in nature, making them critical for understanding how disaster governance is implemented across levels of government. For example, BNPB Regulation No. 2 of 2012 provides technical guidelines for conducting standardized disaster risk assessments using hazard, vulnerability, and capacity indicators. These assessments are foundational for local-level, climate-sensitive planning and feed into the development of Regional Disaster Management Plans (RPB Daerah), which are regulated under BNPB Regulation No. 4 of 2008.

Further supporting this governance architecture is BNPB Regulation No. 1 of 2023 on *Satu Data Bencana* (One Disaster Data), which establishes a national

framework for standardized, integrated, and accountable disaster data management. In line with the *Satu Data Indonesia* initiative, this regulation outlines procedures for data collection, verification, analysis, and sharing across all stages of disaster management. It also defines the roles of data producers and custodians (Walidata), sets metadata and interoperability standards, and mandates a unified platform to ensure data consistency and accessibility.

The most operationally relevant regulation and the focus of analysis in this study is BNPB Regulation No. 2 of 2023 concerning Disaster Contingency Planning. This regulation was chosen because of its direct relevance to emergency preparedness and response, particularly in the context of climate-induced disasters. This regulation introduces a scenario-based approach and emphasizes the use of risk assessments to inform coordinated action. While hazard-neutral in its design, this regulation allows for adaptation to specific climate scenarios, making it a flexible yet standardized tool for multi-sectoral disaster response. Its inclusion allows this study to critically assess how well Indonesia's contingency planning framework integrates gender-based protections in the context of climate emergencies.

3.3 Child Marriage, Maternal And Neonatal, Midwifery

A national legal framework on child protection, maternal and newborn health, and obstetrics is crucial, especially in the context of emergencies caused by climate-induced disasters. Law No. 35 of 2014 on Child Protection affirms the government's responsibility to protect children from violence, neglect, and harmful practices such as child marriage, while ensuring access to health, education, and social protection. This commitment was reinforced by Law No. 16 of 2019, which amended the Marriage Law, raising the legal age of marriage for girls from 16 to 19. This change seeks to curb child marriage, a practice that often increases in times of crisis, as families turn to early marriage as a coping mechanism in the face of economic and social instability.

Law No. 4 of 2023 concerning the Welfare of Mothers and Children in the First Thousand Days of Life was passed to address maternal and child health more comprehensively, with an emphasis on the crucial first years of life. The law

recognizes the importance of early childhood health interventions for children's long-term development and calls for improved nutrition, social security, and service provision for pregnant women and their unborn children. These services are particularly crucial in the climate crisis, as access to healthcare for mothers and newborns is often disrupted. The law provides a framework to ensure that services for women and children are consistently prioritized.

In addition, the health sector has developed specific regulations to support reproductive health services, particularly maternal and newborn services, in Minister of Health Regulation No. 2 of 2025 concerning the Implementation of Reproductive Health Efforts. This regulation adopts the Minimum Initial Service Package (MISP) framework for crisis situations to ensure access to essential SRH services, including safe delivery and emergency obstetric and newborn care (EmONC), as well as a referral system. Health crisis management policies, including those related to climate-related disasters, are regulated in Minister of Health Regulation No. 75 of 2019 concerning Health Crisis Management. According to this regulation, health crisis management in Indonesia is implemented through three main phases. The pre-health crisis phase focuses on prevention, mitigation, and preparedness, including risk assessment, policy development, capacity building, early warning systems, and training of EMTs and PHRRTs. The emergency response phase is activated during a health crisis and includes rapid health assessment, mobilization of emergency medical teams, implementation of operational plans, and provision of essential health services, with special attention to vulnerable groups. Finally, the post-health crisis phase includes damage and needs assessment, as well as rehabilitation and reconstruction to restore health services and infrastructure.

The midwifery framework in Indonesia has also evolved, with the 2019 Midwifery Law, later integrated into Omnibus Law No. 17 of 2023 on Health, establishing national standards for midwifery training and practice. Despite this progress, climate change adaptation is largely absent from midwifery training. Studies show that Indonesian midwives still lack the skills needed to respond to climate-induced disasters, such as emergency care in refugee settings or resilience in service delivery with disrupted infrastructure (Adnani et al., 2021). International

actors such as the WHO, UNFPA, and ICM have called for climate-responsive midwifery competencies; however, Indonesian policies have not fully addressed these demands (O'Connell et al., 2024; Ku Carbonell et al., 2024). To enhance health system resilience, it is crucial to develop and institutionalize climate-sensitive competencies in midwifery training and integrate disaster preparedness into maternal and neonatal care protocols.

3.4 West Java, East Nusa Tenggara

West Java Province is one of the most populous provinces in Indonesia, with an estimated population of about 50.76 million people ((BPS Jawa Barat, 2025). High population density, particularly in urban areas like Bandung, significantly increases vulnerability to disasters. The province's diverse topography, consisting of mountainous regions, coastal areas, and extensive agricultural land, all of which influence flood risk (Rahayu et al., 2023).



Figure 3. Flood Disaster Risk Map and Distribution of GBV Cases in West Java
Source: BNPB(2021) (left), KPPPA (2021) (right)

Based on disaster risk assessment (BNPB, 2021), most of West Java's districts fall within "medium" to "high" flood risk zones. This classification is based on hazard exposure, vulnerability, and capacity indices, which are calculated using spatial analysis and historical disaster records. The data shows that the province of West Java is in a high class of danger to flood disasters. Furthermore, of the total 27 regencies/cities in West Java, none have a low flood hazard class. All are in a high hazard class except for Bekasi City, Cimahi City, Cirebon City, and Sukabumi City which have a moderate hazard class. A similar trend of risk appears in the

spatial distribution of gender-based violence (GBV) cases in 2021, with West Java prominently marked in bold orange on national maps, indicating a high concentration of reported incidents.

Socially, traditional cultural norms prevalent in West Java influence the experiences of women and girls, often limiting their mobility and participation in decision-making during disasters. Cultural perceptions about gender roles can lead to increased vulnerability and heightened risks of gender-based violence and child marriage, particularly during times of crisis, due to reduced access to safe spaces, resources, and protection services (UN-Habitat, 2024; Rizal et al., 2020; Hudaya et al., 2021).

East Nusa Tenggara (NTT) on the other hand, is one of the driest and most drought-prone provinces in Indonesia, characterized by a semi-arid climate, rugged topography, and limited access to surface water. The province consists of over 500 islands, many of which are mountainous, sparsely populated, and difficult to access, making basic services and disaster response challenging (BPS NTT, 2021). Agriculture in NTT is predominantly rain-fed and subsistence-based, leaving rural communities highly vulnerable to climate variability and prolonged dry seasons.



Figure 4. Drought Disaster Risk Map and Distribution of GBV Cases in NTT

Source: BNPB (2021) (left), KPPPA (2021) (right)

From 2010 to 2024, drought events in the province fluctuated but showed an alarming increase in 2023, with 34 recorded incidents, the highest in the past decade. According to the National Disaster Management Authority (BNPB, 2021), all 22 districts in NTT are either moderately or highly at risk of drought. Only six

are categorized as having medium drought risk, while the remaining areas fall into the high-risk category, indicating that the province as a whole faces a high level of cumulative drought disaster risk. This pattern is mirrored in the spatial distribution of gender-based violence (GBV) cases in 2021, where NTT is highlighted in bold orange on national maps, signifying a high incidence of GBV cases in the region (see figure 4). Moreover, despite relatively low population density, the geographically dispersed communities across the province contribute to systemic vulnerability, particularly in terms of food security, water access, and livelihood resilience.

These environmental vulnerabilities intersect with deep-rooted gender inequalities, making women and girls disproportionately affected during droughts. In NTT, gender representation in formal institutions remains low, and women's access to education, health, and economic opportunities is often limited, especially in rural areas (UN Women Indonesia, 2023). Cultural perceptions continue to shape the roles of women and girls, with expectations that they manage household duties, care for family members, and support subsistence needs during crises. As a result, during times of drought, women are typically burdened with fetching water over longer distances, finding alternative food sources, and coping with increased domestic stress (Kolimon, 2019). In some communities, girls are seen as economic dependents, which can contribute to child marriage being used as a coping strategy during economic hardship (KemenPPPA, 2022).

CHAPTER IV

THE IMPACT OF CLIMATE-INDUCED DISASTERS ON GBV, CHILD MARRIAGE, SRH, AND MIDWIFERY

This chapter examines the impacts of climate-induced disasters, specifically floods and droughts on GBV, child marriage, SRH, and midwifery service delivery in Indonesia. Drawing on case studies from West Java and East Nusa Tenggara, the chapter explores how these disasters exacerbate existing cases of GBV and child marriage. The analysis focuses on two interrelated domains: the increase in GBV and child marriage in disaster-affected areas, and the challenges faced by midwives and health systems in delivering SRH services during emergencies.

4.1 Impact of Flood and Drought on GBV and Child Marriage

4.1.1 The Impact of Floods on GBV and Child Marriage in West Java

In the aftermath of climate disasters, particularly floods, communities in West Java often face significant disruption. The figure below shows the annual time trends in flooding events, gender-based violence (GBV), and child marriage in West Java, Indonesia, between 2016 and 2024:

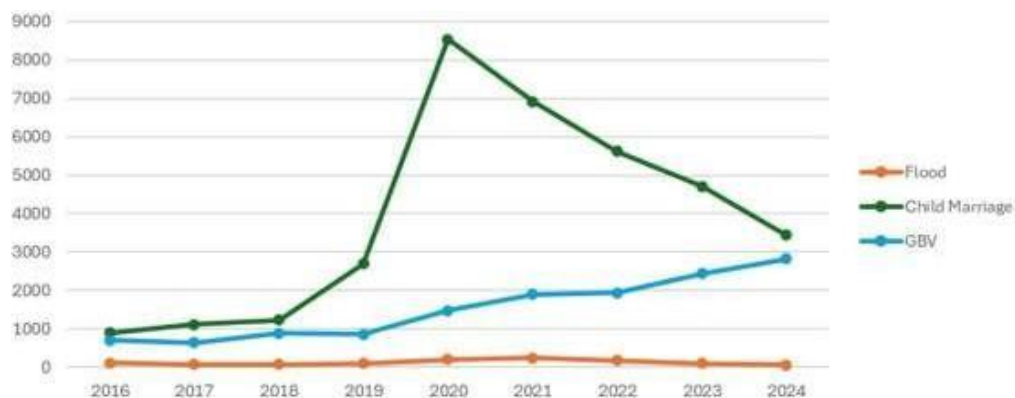


Figure 5. Flood events, GBV and Child Marriage Cases in West Java
Source: BNPB (2025), BADILAG (2025), KPPPA (2025)

The figure illustrates a notable increase in flood events in the middle of the observed period, followed by upward trends in both GBV and child marriage. Although this does not imply a direct causal link, these trends suggest a possible relationship between the occurrence of floods, the rise in gender-based violence

(GBV), and child marriage cases.

Gender-based violence trends showed a general upward trend over the period. While its incidence was relatively low at the beginning of the period, the number of cases began to increase, particularly after years of active flooding. To support the trend of GBV from the literature, a report by (UNFPA Indonesia et al., 2024) highlighted that poor lighting, lack of privacy, and limited protection services in evacuation sites contributed to the increased risk of violence against women and girls. (Komnas Perempuan, 2024) recorded over 289,000 cases of violence against women in a single year, including more than 3,300 cases classified as GBV, most of which occurred in personal settings. The (World Bank, 2012), also noted that disasters such as the 2006 tsunami worsened gender inequality, increased domestic violence and child marriage, and reduced women's access to aid and economic recovery. (Anisa et al., 2021) pointed out that many emergency responses are not gender-sensitive in practice, which contributes to continued marginalization and violence, especially in shelters lacking privacy and safe sanitation. (Escobar Carías et al., 2022) found that floods had a negative effect on mental health, especially among women and girls, making them more vulnerable to GBV. (Chee Liberty, 2018) similarly emphasized that floods are the most frequent disaster in Indonesia and often lead to increased violence due to weak protection systems and the breakdown of social support, especially in the absence of gender-disaggregated data.

Similarly, the trend of child marriage shows a sharp increase during the middle of the observed period, especially during years with increased flood activity. However, it is important to emphasize that floods are not the sole driver of these practices, but rather one of several contributing factors that intersect during crises. In this context, cultural norms play a vital role. West Java is predominantly inhabited by Sundanese people (Miharja, 2022). Sundanese beliefs such as "Pamali" promote discipline and modesty in girls' behavior, and reinforce traditional roles such as obedience and domestic work (Indah et al., 2024), making decisions such as early marriage more socially acceptable in times of crisis.

To support the trend of child marriage from the literature, the (UNFPA, 2021) report explained that disasters such as floods disrupt education, displace

families, and increase economic pressure, leading some families to marry off their daughters as a coping mechanism to reduce financial burdens or protect their daughters from potential violence. (UNICEF, 2020) reported that West Java has one of the highest child marriage rates in Indonesia, and this is often linked to school dropouts caused by disasters, particularly in rural areas. Government data from (Kemenko PMK, 2023) recorded 483 applications for child marriage dispensations in Cirebon, West Java, between 2019 and 2022, citing economic hardship and traditional practices as key drivers. (Kumala Dewi & Dartanto, 2018) also found that natural disasters are associated with a higher likelihood of girls being married before the age of 18, as some families turn to marriage after losing income or property. (Dartanto, 2022) added that early marriage is linked to poorer health and financial conditions for mothers. (Agustina et al., 2022) reported that West Java had the highest child marriage rate in 2018, at 13.26%, with flood-prone and poor areas like Cianjur and Tasikmalaya identified as high-risk zones. In these areas, weak child protection systems and economic stress increase the likelihood of early marriage.

In conclusion, the trends observed above suggest that climate-induced disasters such as flooding may occur simultaneously. With the surge in Gender-Based Violence (GBV) and child marriage, the available evidence is still suggestive, instead of definitive. There is a need for further empirical studies, both qualitative and quantitative, to better understand how environmental and social conditions interact over time, which affects the extent to which floods act as a driver of these negative social impacts.

4.1.2. Impact of Drought on GBV and Child Marriage in East Nusa Tenggara

The impact of drought on gender-based violence (GBV) and child marriage in East Nusa Tenggara (NTT) highlights the links between climate stress, gender inequality, and rural poverty. NTT, one of the most drought-prone provinces in Indonesia, is a clear example of how climate-related disasters, particularly drought, can deepen existing gender vulnerabilities. Recurrent droughts, largely driven by climate change, put heavy pressure on households that rely on agriculture. Women and girls often feel this burden the most, carrying household responsibilities while

facing limited access to resources, decision-making power, and protection mechanisms.

Prolonged drought in East Nusa Tenggara (NTT) has taken a heavy toll on agricultural livelihoods, especially among food crop farmers, leading to widespread economic hardship in affected districts (Latifa et al., 2023). Since NTT's agricultural economy depends largely on rain-fed farming, drought often means lower yields or even total crop failure, leaving families with severe income losses and food insecurity. Kuswanto et al. (2019) note that rural communities in NTT are highly aware of seasonal drought and its impacts, describing how it disrupts farming, puts households under financial strain, and limits access to food. This economic uncertainty, in turn, exacerbates household tension and compels families to embrace coping strategies frequently entailing long-term social consequences. These processes are specifically detrimental for women and girls. As discussed by Kolimon (2019), women are commonly responsible for offsetting drought losses through walking longer distances to collect water, improvising food supply management, and coping with increasing domestic pressures. Meanwhile, men are likely to migrate to seek employment or face loss of social status because of unemployment, causing changing power relations in the household and frequently resulting in increased exposure to domestic violence against women.

While the literature provides important insight into gendered vulnerability, none of the existing studies in NTT specifically examine gender-based violence (GBV) or child marriage as direct outcomes of drought. Therefore, to address this gap, our analysis turns to local data collected between 2016 and 2024, which reveals striking trends in drought events, child marriage, and GBV cases in the region.

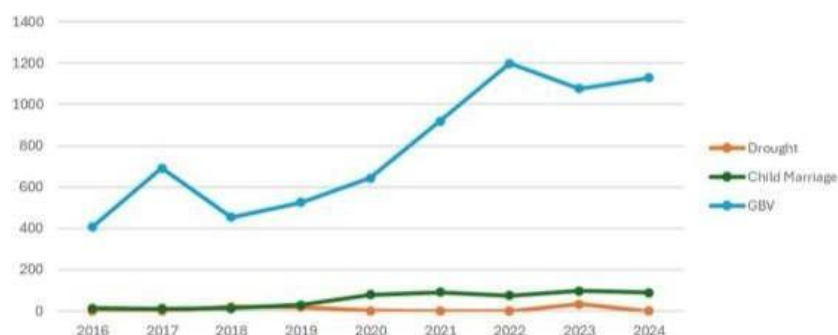


Figure 6. Drought events, GBV and Child Marriage Cases in East Nusa Tenggara
Source: BNPB (2025), BADILAG (2025), KPPPA (2025)

As shown in Figure 4, drought events in NTT were absent in 2016 (0 events) but surged to a peak of 34 in 2023, highlighting the region's increasing vulnerability to climate extremes. Child marriage cases followed a similar upward trend, starting at 13 in 2016 and reaching their highest point at 96 in 2023. This sharp rise in child marriage often follows years with more frequent drought events, suggesting that prolonged drought may influence household decisions, with early marriage used as a coping strategy in times of economic hardship.

Reported cases of gender-based violence (GBV) also increased substantially over the period, from 407 in 2016 to a peak of 1,198 in 2022. While the overall trend in GBV is upward, the timing of increases does not always align with drought peaks. For example, GBV cases rose sharply in 2021 (919 cases) and 2022 (1,198 cases), even though drought events were minimal in those years. This indicates that, although drought-related stress and economic insecurity may heighten vulnerability, other social and economic factors are also driving GBV rates in the region.

Overall, these trends show how periods of severe drought in NTT often coincide with increases in child marriage, while GBV continues to rise due to a combination of environmental, economic, and cultural pressures. The data highlight the urgent need for gender-responsive interventions that address both the immediate impacts of climate disasters and the deeper social vulnerabilities faced by women and girls in the region.

4.2 The Impact of Flood on SRH Services

Climate change has become an increasingly important public health issue in Indonesia, partly due to the increase in flooding. Flooding caused by climate change has a widespread impact on access to and quality of sexual, reproductive, and obstetric health services, especially for vulnerable groups such as women, pregnant women, and children (Ipas Indonesia, 2023).

Floods often cause damage to health infrastructure, hamper the distribution of medical supplies, and restrict the mobility of health workers. As a result, access to obstetric services, pregnancy checkups, and contraceptive services becomes severely limited (Indonesian Ministry of Health, 2019). In addition, pregnant

women and newborns are among the groups most vulnerable to the effects of flooding. Flood-related emergencies can increase the risk of pregnancy complications for pregnant women, such as premature birth, low birth weight, miscarriage, and even maternal and infant mortality, particularly because access to health services and delivery facilities is severely disrupted during emergency response periods (Apriyani, 2022).

4.2.1. Impact of Climate-Induced Flooding on Maternal and Neonatal Health Services

Flooding events, one of the most frequent climate-related disasters in Indonesia, pose a direct threat to maternal and neonatal health. The results of BNPB's DIBI data (2014-2024) show that flooding due to climate change is increasing and has a direct impact on health services, especially maternal and neonatal health.

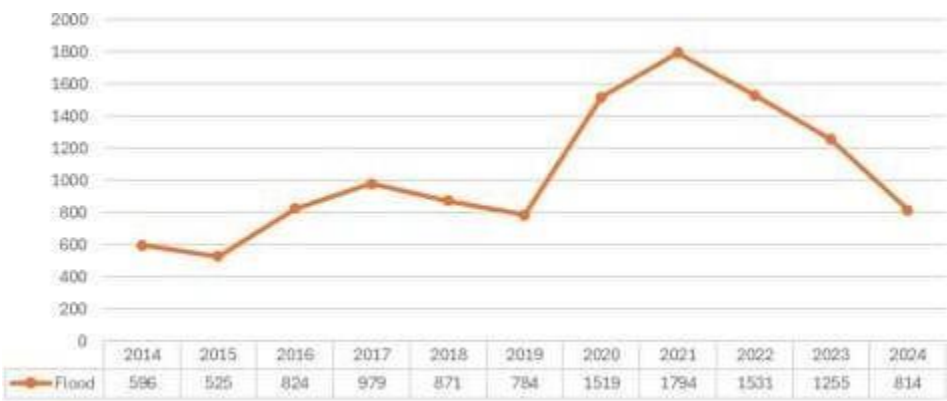


Figure 7. Flood Events Trend in Indonesia from 2014 – 2024
 Source: BNPB (2015)

Between 2014 and 2024, Indonesia recorded over 11,000 flood incidents, with increasing frequency observed in recent years (DIBI BNPB, 2024). These floods not only damage health infrastructure but also limit access to EmONC particularly BEmONC (PONED) and CEmONC (PONEK) services at both basic and comprehensive levels, disrupt referral systems, and compromise the continuity of care for pregnant women and newborns.

A case from Sijunjung Regency, West Sumatra in 2018 illustrates this

impact clearly. During a major flood, emergency deliveries were conducted in open areas with limited equipment, while maternal and neonatal mortality risks increased due to the absence of skilled assistance and proper facilities. The local health center, Puskesmas Lubuk Tarok, was also affected by the flood, leading to the suspension of basic reproductive health services. Moreover, there were no specific local regulations, contingency plans, or trained reproductive health teams to address obstetric complications during the crisis (Nursal, Aprianty, & Halawa, 2021).

This case highlights the structural vulnerabilities in the health system's capacity to respond to reproductive and maternal-neonatal health needs during climate disasters. The lack of integrated emergency planning, especially concerning EmONC includes BEmONC (PONED) and CEmONC (PONEK) service readiness and maternal-neonatal referral pathways, further exacerbates health risks for mothers and infants during flooding emergencies.

4.1.1. Impact of Climate-Induced Disasters on Midwifery Service Delivery

The impact of climate-induced disasters, such as floods and droughts, on human health and sexual reproductive health has recently been a global concern. Although these disasters affect almost everyone, they have a more severe impact in regions experiencing systemic inequalities, further exacerbating challenges in the healthcare system, displacement of more people, and increased marginalization (ICM, 2024; Mollard & Cottrell, 2023). Indonesia is not exempt, in regions such as Central Java, East Nusa Tenggara, and Sulawesi, recurrent floods and droughts have repeatedly posed challenges to the health sector (Candraningrum et al., 2021; World Bank, 2021). These disasters not only have a potential impact on women and newborns but also can have serious consequences on midwifery service delivery (Dağlı et al., 2024). Therefore, it is critical to investigate the effects on sexual reproductive health professionals and the new skills they may need to effectively adapt and respond to climate emergencies.

As frontline healthcare providers, midwives are mostly based in communities to provide immediate care to those at risk during climate emergencies (Rosa et al., 2021; UNFPA, 2024). The study of Adnani et al (2025) highlighted that midwives often serve as a point of contact for pregnant women, offering

prenatal care, facilitating delivery, and providing postnatal care for both mothers and babies. They also leverage their expertise to help reduce maternal and neonatal death rates and promote positive reproductive health. Moreover, they usually participate in public health sensitizations, advocating for the importance of family planning and sustainable reproductive health (Adnani et al., 2025). Nonetheless, midwives' ability to provide adequate care is often compromised due to skill gaps that arise as a result of climate change.

In addition, midwives are expected to continue their duties in emergency situations, putting them at greater risk for illness and psychological stress. They are frequently left out of official disaster coordination and emergency preparedness strategies (Sajow, 2020). A significant policy and programmatic gap is reflected in this discrepancy between their minimal presence in climate response and their crucial importance in SRH. Midwives' duties must be sufficiently supported by climate-relevant competencies and structural inclusion in disaster health planning, while they continue to engage in family planning advocacy, public health education campaigns, and community resilience building (Adnani et al., 2025).

CHAPTER V

POLICY ANALYSIS ON GENDER BASED VIOLENCE, CHILD MARRIAGE AND CONTINGENCY PLAN

This chapter provides a policy analysis of Indonesia's regulatory and planning frameworks concerning the protection of women and children from GBV and child marriage in disaster contexts. It concentrates mainly on the Regulation of the Minister of Women's Empowerment and Child Protection No. 8 of 2024, analyzing its prevention strategies and measures of GBV in emergencies. The chapter also reviews how disaster contingency plans are structured, with give specific attention to how far GBV risks and protection interventions are integrated systematically.

5.1 Protection of women and children from GBV in disasters (Regulation of the Minister of Women's Empowerment and Child Protection Number 8 of 2024)

This regulation provides a framework to protect women and children from gender- based violence (GBV) during disasters. It defines key concepts, mandates the formation of a dedicated GBV sub cluster (PP KBG PP), and structures responsibilities across government levels, NGOs, and communities. Organized into nine chapters and supported by detailed attachments, the regulation addresses gender-sensitive planning, service provision, data integration, and inclusive coordination during pre-disaster, emergency response, and post- disaster recovery.

5.1.1. Strategies and Actions for Prevention of GBV and Handling of Victims

The analysis focuses on Appendix I, particularly Chapter III, which outlines the "Implementation of GBV Prevention and Handling of GBV Victims" within the Regulation. The approach involves identifying key strategy and actions presented in the policy and assessing their alignment with the 16 standards of the Inter-Agency Minimum Standards for GBV in Emergencies (UNFPA, 2019) to determine whether the programs and actions meet established international

standards. These standards include: (1) GBV Guiding Principles; (2) Women's Participation; (3) Staff Care and Support; (4) Health Care for GBV Survivors; (5) Psychosocial Support; (6) GBV Case Management; (7) Referral Systems; (8) Women's Safe Spaces; (9) Safety and Risk Mitigation; (10) Justice and Legal Aid; (11) Dignity Kits; (12) Economic Empowerment; (13) Transforming Social Norms; (14) Collection and Use of Survivor Data; (15) Coordination; and (16) Assessments, Monitoring and Evaluation. In addition, the same strategy points and actions are examined for their relevance to the context of climate-induced disasters, with the aim of evaluating the extent to which the policy narrative associated with climate change

Table 2. Analysis of Strategy and Actions in MoWECF regulation Number 8 of 2024

Strategies	Actions	GBV standards Alignment and Climate Induced Disaster Relevancies
Pre-Disaster		
1. Community Engagement and Awareness	1.1 <i>Awareness-raising campaign related to community knowledge and behavior on gender equality</i>	Standard 1. (GBV Guiding Principles) and Standard 13 (Social Norms) Partially Relevant to Climate Induced Disaster
	1.2 <i>GBV Prevention IEC (KIE) Materials</i>	Standard 1. (GBV Guiding Principles) and Standard 9 (Safety & Risk Mitigation) Partially Relevant to Climate Induced Disaster
2. Institutional and Capacity Building	2.1 <i>Formation and/or optimization of the role of PP GBV PP Sub-clusters in Prevention, Handling of GBV, and women's empowerment in provincial and district/city governments</i>	Standard 15. (GBV Coordination) Partially Relevant to Climate Induced Disaster
	2.2 <i>Strengthening the capacity of GBV complaint, handling, and referral service providers</i>	Standard 3. (Care and Support Staff) and Standard 6 (Case Management) Partially Relevant to Climate Induced Disaster
3. Data, Planning, and Policies	3.1 <i>Preparation of disaster risk assessments, contingency plans, evacuation plans, and early warning systems with a gender perspective</i>	Standard 9. (Safety and Risk Mitigation) and Standard 2 (Women's Participation & Empowerment) Relevant to Climate Induced Disaster
	3.2 <i>Preparation and/or strengthening of policies for the implementation of GBV Prevention and Handling</i>	Standard 13. (Systems and Social Norms) Partially Relevant to Climate Induced Disaster
	3.3 <i>Preparation of disaggregated data based on gender, age, and vulnerability categories</i>	Standard 14. (Collection and Use of Survivor Data) Relevant to Climate Induced Disaster
4. Logistics, Facilities and Accessibility	4.1 <i>Preparation of emergency logistics, women's specific needs, and children's special needs</i>	Standard 11. (Dignity Kits, Cash & Voucher Assistance) Partially Relevant to Climate Induced Disaster
	4.2 <i>Preparation of child and women friendly facilities in evacuation sites</i>	Standard 8. (Safe Spaces) and Standard 9 (Risk Mitigation) Partially Relevant to Climate Induced Disaster

	4.3 <i>Preparation of accessibility and decent accommodation for women and children who are vulnerable</i>	Standard 9. (Safety and Risk Mitigation) Partially Relevant to Climate Induced Disaster
During Disaster		
5. Access and Intake Services	5.1 <i>Receiving complaints</i>	Standard 6. (GBV Case Management) and Standard 5 (Psychosocial Support) Not Relevant to Climate Induced Disaster
	5.2 <i>Provision of companions</i>	Standard 6. (GBV Case Management) Not Relevant to Climate Induced Disaster
	5.3 <i>Provision of service referrals</i>	Standard 7. (Referral Systems) Partially Relevant to Climate Induced Disaster
6. Psychological & Psychosocial Services	6.1 <i>Provision of psychological reinforcement</i>	Standard 5. (Psychosocial Support) Not Relevant to Climate Induced Disaster
	6.2 <i>Psychosocial services</i>	Standard 5. (Psychosocial Support) Partially Relevant to Climate Induced Disaster
	6.3 <i>Provision of psychological services</i>	Standard 5. (Psychosocial Support) Not Relevant to Climate Induced Disaster
7. Medical, Legal, and Safe Shelter	7.1 <i>Provision of legal services</i>	Standard 10. (Justice & Legal Aid) Not Relevant to Climate Induced Disaster
	7.2 <i>Provision of adequate accommodation for victims who are vulnerable</i>	Standard 8. (Safe Spaces) and Standard 9 (Risk Mitigation) Partially Relevant to Climate Induced Disaster
	7.3 <i>Provision of health services</i>	Standard 4. (Health Care) Partially Relevant to Climate Induced Disaster
Post-Disaster		
8. Rehabilitation & Reconstruction	8.1 <i>Preparation of rehabilitation and reconstruction plans for women and children</i>	Standard 2 (Women's Participation & Empowerment) and Standard 13. (Systems & Social Norms) Partially Relevant to Climate Induced Disaster
9. Social and Economic Empowerment	9.1 <i>Provision of social rehabilitation services</i>	Standard 5. (Psychosocial Support) Partially Relevant to Climate Induced Disaster
	9.2 <i>Economic empowerment</i>	Standard 12. (Economic Empowerment & Livelihoods) Partially Relevant to Climate Induced Disaster

Upon a detailed review of the regulation, the policy outlines a total of 22 actions across 9 strategic areas. The results indicate that all 22 actions are aligned with at least one GBV standard, confirming that the policy is broadly consistent with the international standard. In terms of responsiveness to climate-induced disaster risks, the actions present varied degrees of relevance: 2 actions were identified as fully relevant, 15 as partially relevant, and 5 as not relevant. These findings highlight the regulation's strong alignment with climate change adaptation actions.

5.1.2. Possible Gaps for Prevention of GBV and Handling of Victims

Out of the 22 actions outlined in the regulatory framework, two actions under the strategy of “Data, Planning, and Policies” reveal possible gap. These gaps concern the lack of detailed guidance on the development of a GBV (PP KBG PP) Sub-cluster contingency plan and the absence of a standardized mechanism or SOP for collecting and sharing disaggregated data nationally.

Table 3. Possible Gaps in MoWECP Regulation Number 8 of 2024

Strategies	Actions	Possible Gaps
3. Data, Planning, and Policies	3.1 <i>Preparation of disaster risk assessments, contingency plans, evacuation plans, and early warning systems with a gender perspective</i>	There is no further explanation regarding what and how PP KBG PP sub-cluster contingency plan is prepared. Despite this action is <i>Align to Standard 9. (Safety and Risk Mitigation) and Standard 2 (Participation & Empowerment) and Relevant to Climate Induced Disaster</i> , In the appendix on page 46, it is explained that the Protection carried out in mitigation and Prevention efforts is one of them by carrying out activities to develop a PP KBG PP Sub-cluster contingency plan.
	3.3 <i>Preparation of disaggregated data based on gender, age, and vulnerability categories</i>	There is no mechanism or SOP regarding the sharing of disaggregated data to ensure the collection of disaggregated data and KBG related to disaster nationally. Despite this action is <i>Align to Standard 14. (Collection and Use of Survivor Data) and Relevant to Climate Induced Disaster</i> , In the appendix on page 49, it has been explained about data coordination with BNPB.

Two key implementation gaps have been identified in relation to Actions 3.1 and 3.3. The first gap concerns Action 3.1, where the appendix on page 46 mandates the development of a specific PP KBG PP Sub-cluster contingency plan as part of protection efforts during the mitigation and prevention stage. However, the document provides no further detail on the content or development process of such a plan. This lack of clarity may hinder consistent and effective planning. In response, it is recommended to formulate and disseminate a standardized technical guideline that outlines the necessary steps, components, and roles involved in developing the PP KBG PP Sub-cluster contingency plan.

The second gap pertains to Action 3.3. While the appendix on page 49 acknowledges the need for coordination with BNPB, it did not specify a clear mechanism or standard operating procedure (SOP) for the systematic collection and sharing of disaggregated data related to gender-based violence (GBV) in disaster

contexts. The absence of such a mechanism restricts stakeholders' capacity to generate reliable and comparable data. To address this, two key actions are recommended: (1) the establishment of an SOP for the collection, management, and dissemination of disaggregated data related to GBV in disaster settings; and (2) enhanced coordination between BNPB, MoWECP, and relevant local authorities to ensure the integration of disaggregated GBV data into national information systems.

5.2 The Preparation of Disaster Contingency Plans (Regulation of the National Disaster Management Authority Number 2 of 2023)

As a critical component of Indonesia's disaster preparedness system, BNPB Regulation Number 2 of 2023 provides a clear legal foundation for developing Disaster Contingency Plans. The regulation mandates that both national and regional governments create detailed, scenario-based contingency plans. This regulation also provides guidelines in the form of standardized templates and procedures as a reference in preparing the documents.

5.2.1. Contingency Plan Document Structure Analysis

This analysis focuses on the regulatory appendix of BNPB Regulation No. 2 of 2023, which outlines the structure of the disaster contingency plan document, with the objective of identifying critical entry points for integrating gender-based violence (GBV) sensitive actions. To mapping these entry points, the study also assessed their alignment with the Inter-Agency Minimum Standards for GBV in Emergencies (UNFPA, 2019) and evaluated their relevance in the context of climate-induced disasters using the OECD DAC–Rio Marker system and the UNDRR's guidance on coherence between DRR and CCA.

Table 4. Possible Entry points for integrating GBV into Disaster Contingency Plan

Content	Possible Entry Points for Intervention	Standard Alignment & Climate Relevancies
Chapter I. Introduction		
1.1. Background		

Content	Possible Entry Points for Intervention	Standard Alignment & Climate Relevancies
1.2. Legal Basis	Ensure all regulation related to GBV are referred, such as: 1. Regulation of the MoHA Number 15 of 2008 JUNCTO Number 67 of 2011 concerning Gender Mainstreaming in Government Area; 2. Regulation of the MoHA Number 67 of 2011 on General Implementation Guidelines Gender Mainstreaming in the Regions; 3. Regulation of the MoWECP Number 5 of 2014 concerning the Implementation of Gender and Child Data; 4. Regulation Head of the BNPB Number 13 of 2014 on Gender Mainstreaming in Disaster Management; 5. Regulation of the MoWECP Number 8 of 2024 Concerning Protection of Women and Children from Gender Based Violence In Disaster Management.	- Standard 13, - Partially Relevant to Climate-Induced Disaster.
1.3. Policy and Strategy	Policy: Integrate gender and inclusivity aspects into the policy narrative. Strategy: Clearly articulate how gender- and inclusion-based policies are implemented during disaster situations.	- Standard 1 & Standard 13 - Partially Relevant to Climate-Induced Disaster.
1.4. Purpose and Objectives		
1.5. Scope		
1.6. Approach, Method and Process Stages		
1.7. Feedback		
1.8. Validity Period and Updates		
1.9. Contingency Plans into Operational Plans		
Chapter II. Situation		
2.1. Characteristics of Disaster Hazards/Threats		
2.2. Incident Scenarios		
2.3. Impact Assumptions	Explicitly state that gender-based violence (GBV) risks and harmful practices may arise as a consequence of disasters.	- Standard 9 - Partially Relevant to Climate-Induced Disaster
Chapter III. Objectives and Targets		
3.1. Objectives	Clearly integrate gender and inclusivity aspects into the operational principles of implementation.	- Standard 2 - Partially Relevant to Climate-Induced Disaster
3.2. Targets	Clearly state that the prevention and response to GBV is one of the primary objectives, in accordance with the mandate of the PP KBG PP Sub-Cluster.	- Standard 6 and 15 - Partially Relevant to Climate-Induced Disaster
Chapter IV. Implementation		
4.1. Operation Concept		
4.2. Emergency Management Command Structure		
4.3. Main Activities	Clearly identify and state the roles and responsibilities of the PP KBG PP Sub-Cluster.	- Standard 15 - Partially Relevant to Climate-Induced Disaster
Chapter V. Administration and Resources		
5.1. Administration and Finance		
5.2. Resources		
Chapter VI. Control		
6.1. Instructions		
6.2. Command and Control		
6.3. Coordination		
6.4. Communication		

Content	Possible Entry Points for Intervention	Standard Alignment & Climate Relevancies
6.5. Information Management	Clearly define the information management approach, with particular attention to ensuring the availability of disaggregated data, as it is a critical component for effective and inclusive information management.	- Standard 14 - Partially Relevant to Climate-Induced Disaster
Chapter VII. Updates and Testing		
7.1. Updates		
7.2. Testing	Explicitly state that preparedness training or simulation exercises must involve all relevant parties, including the PP KBG PP Sub-Cluster, to ensure GBV issues are addressed, and input is provided for planning documents.	- Standard 3 & Standard 6 - Partially Relevant to Climate-Induced Disaster
Attachment		
Attachment 1. Projection of Affected Areas & Population		
Attachment 2. Composition of Task Force	Ensure that there is a designated lead or responsible actor for the implementation of tasks within the PP KBG PP Sub-Cluster.	- Standard 15 - Partially Relevant to Climate-Induced Disaster
Attachment 3. Communication Network		
Attachment 4. Resource Availability & Needs Estimation	Ensure that the needs of women and children during emergencies are comprehensively identified and met, including the availability of resources and actors responsible for GBV protection and response.	- Standard 11 & Standard 4 - Partially Relevant to Climate-Induced Disaster
Attachment 5. Map Album		
Attachment 6. Evacuation Plan	Ensure that evacuation planning incorporates inclusive processes and mechanisms, particularly for women, children, and other vulnerable groups.	- Standard 2 & Standard 9 - Partially Relevant to Climate-Induced Disaster
Attachment 7. Commitment Sheet		
Attachment 8. Minutes of Preparation Sheet		
Attachment 9. Organization Profile		

The analysis of the document reveals that the structure of the disaster contingency plan provides multiple opportunities for integrating GBV considerations that are in line with the Minimum Standards for GBV (UNFPA, 2019). Eleven possible entry points align with key standards such as Guiding Principles, Coordination, Survivor Data Use, Risk Mitigation, and Case Management. However, while there is some conformity with these standards, not all entry points are explicitly tailored to climate-induced disasters, several demonstrate clear relevance to such contexts. This reflects the fact that the disaster contingency plan guidelines are designed to be broadly applicable across various types of disasters, whether climate-related or not.

5.2.2 Integrating GBV into Disaster Contingency Plan

There are multiple possible entry points for mainstreaming gender-based violence (GBV) considerations into disaster contingency planning. In the

introductory section, GBV integration can begin by ensuring that all relevant legal frameworks and policies are referenced in the legal basis of the plan. In the "Policy and Strategy" subsection, there is a clear opportunity to embed gender and inclusivity language within the overarching narrative and to describe how these principles translate into concrete actions. Further, the "Impact Assumptions" section under the situation analysis can be strengthened by explicitly acknowledging the increased risk of GBV as a potential consequence of disasters, allowing this to shape downstream planning decisions.

Additional entry points appear in the "Objectives and Targets" and "Implementation" sections. The objectives should incorporate gender and inclusivity as foundational principles of the contingency plan, and the targets should specifically highlight the prevention and response to GBV as key goals, particularly through the role of the PP KBG PP Sub-Cluster. In the implementation section, there is room to clearly define the responsibilities of this sub-cluster. Under "Information Management," the plan should outline a strategy for gathering and using disaggregated data, which is essential for identifying and addressing GBV risks. The testing and simulation section can be leveraged to ensure preparedness exercises meaningfully involve GBV actors. Lastly, in the annexes, important interventions include designating responsible actors within the task force, planning for the needs of women and children in resource estimations, and incorporating gender-sensitive approaches into evacuation planning. The findings and possible recommendations derived from this analysis will be guided by the principles outlined in the guidance on Integrating DRR and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework (UNDRR, 2020), which emphasizes inclusive, risk-informed planning that addresses systemic vulnerabilities, including those related to gender and protection in disaster contexts.

CHAPTER VI

POLICY ANALYSIS OF EMERGENCY OBSTETRIC AND NEONATAL CARE AND MATERNAL-NEONATAL REFERRAL SYSTEMS

The escalating frequency and severity of climate-related disasters have imposed additional pressure on health systems that are often already structurally fragile and resource- constrained. Pregnant women and newborns are among the most vulnerable groups in disasters caused by climate change, so reproductive health services are urgently needed. This chapter examines how emergency obstetric and newborn care (EmONC) particularly BEmONC (*PONED*) and CEmONC (*PONEK*) and maternal-neonatal referral systems are addressed within disaster and health crisis management policies, particularly in the context of climate-related emergencies. It explores the integration of reproductive health into emergency response frameworks, with a focus on the alignment between national policies and international standards such as the Minimum Initial Service Package (MISP) for reproductive health in crisis situations.

6.1. Health Crisis Management

6.1.1. Health Crisis Management by Health Clusters, especially Health Services Sub- Cluster and Reproductive Health Sub-Cluster

Health crisis management is regulated in Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2019 concerning Health Crisis Management. This regulation explains that health crisis management is carried out by the Health Cluster. Health crisis management is carried out in stages by the Regency / City Health Office, Provincial Health Office, and the Ministry of Health in accordance with their duties and functions. The Health Cluster is divided into several sub-clusters. Two of them are related to reproductive health and referral services, namely:

1. The health services sub-cluster, which is in charge of organizing individual health services, especially emergency aid services before reaching health care facilities and referrals. This sub-cluster organizes health services to affected

individuals with emergency aid services before reaching health care facilities such as health centers or hospitals.

2. Reproductive health sub-cluster, which is in charge of organizing reproductive health service activities.

Both sub-clusters are active across the three stages of crisis management: pre-crisis, emergency response, and post-crisis. While the pre-crisis stage includes preparedness activities such as risk assessments and simulation exercises and the emergency stage focuses on response activation and service continuity, the post-crisis stage centers on recovery and reconstruction planning. Considering that the threat of climate change is increasing, these two sub-clusters are essential and necessary.

6.1.2. Health Crisis Management Stage in Climate Change Disaster Management

According to the Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2019 concerning Health Crisis Management, health crisis management activities are carried out in 3 stages:

1. Pre-Health Crisis Stage

A. Prevention and mitigation, and preparedness efforts.

- 1) Health Crisis risk assessment
- 2) Develop, socialize and implement Health Crisis Management policies or standards.
- 3) Develop a health crisis management information system.
- 4) Develop a Health Crisis Management plan.
- 5) Carry out capacity building for disaster-safe health services.

B. Preparedness efforts at the pre health crisis stage include:

- 1) Developing an early warning system.
- 2) Increasing the capacity of human resources both in managerial and technical terms.
- 3) Community empowerment in health crisis management activities.
- 4) Forming Emergency Medical Team (EMT), Rapid Health Assessment

- (RHAT),
- 5) Public Health Rapid Response Team and other health teams.
 - 6) Ensure the availability of adequate facilities, infrastructure, logistics and health equipment.
 - 7) Conduct simulation / rehearsal activities in the health sector.

2. Emergency Response Stage

This stage addresses immediate actions taken during a declared health crisis. It is further divided into three operational statuses:

A. Health Crisis Emergency Alert Status:

- 1) Conducting Rapid Health Assessments (RHA)
- 2) Activating health clusters and mobilizing relevant response teams (Emergency Medical Team (EMT) and Public Health Rapid Response Team(PHRRT));
- 3) Developing and implementing a health crisis operation plan.

B. Health Crisis Emergency Response Status:

- 1) Continuing Rapid Health Assessments (RHA) and maintaining cluster activation;
- 2) Implementing the operation plan while ensuring that health services are delivered in accordance with standards, with attention to vulnerable groups;
- 3) Intensifying situation monitoring, health promotion, and health crisis communication.

C. Health Crisis Emergency Transition Status:

- 1) Conducting Rapid Health Assessments (RHA);
- 2) Ensuring the immediate resumption of essential health sector programs.

3. Post-Health Crisis Stage

The final stage is focused on recovery and rehabilitation following a health crisis. Key activities include:

- D. Conducting assessments of damages, losses, and health resource needs;

- E. Developing action plans for health sector rehabilitation and reconstruction;
- F. Implementing the planned rehabilitation and reconstruction efforts to restore service delivery and system functionality.

6.2. Alignment of Reproductive Health Services in the Minimum Initial Service Package (MISP) with Reproductive Health in Crisis Related to Disasters Caused by Climate Change

The Regulation of the Minister of Health of the Republic of Indonesia No. 75 of 2019 on Health Crisis Management in handling sexual and reproductive health services in climate disasters must be in line with the Guidelines for the Implementation of the Minimum Initial Service Package (PPAM) Reproductive Health in Health Crisis is a technical document that explains the procedures for implementing reproductive health services including during climate disasters in accordance with the provisions of the Minister of Health Regulation No.2 of 2025 adopted from the Inter-Agency Working Group on Reproductive (IAWG) Health in Crisis Minimum Initial Service Package (MISP).

According to the *Guidelines for the Implementation of the Minimum Initial Service Package (MISP)* by the Ministry of Health, during health crises caused by climate change, those responsible for maternal and neonatal components must ensure that pregnant women and newborns receive the necessary services. Service standards include mapping health facilities such as hospitals with comprehensive emergency obstetric and newborn care (CEmONC) and inpatient primary health centers with basic emergency obstetric and newborn care (BEmONC) and establishing a maternal and neonatal emergency referral system that operates 24/7. This referral system must be supported by clear Standard Operating Procedures (SOPs) or protocols, containing information on referral facilities, key contacts (emergency rooms, delivery wards, blood banks), and referral guidance based on distance, road conditions, travel time, and transportation modes. These SOPs must be available in all health facilities, including reproductive health tents, to ensure timely and efficient referrals for obstetric and neonatal complications.

6.2.1. Policy Gaps in Basic Obstetric and Newborn Care (BEmONC) (*PONED*) and Comprehensive Obstetric and Newborn Care (CEmONC) (*PONEK*) in Climate Disaster

Article 4 point (5), Chapter II on Organization in the Regulation of the Minister of Health of the Republic of Indonesia No. 75 of 2019 on Health Crisis Management states that the Health Cluster is supported by a Data and Information Team responsible for managing and disseminating data and information related to health crisis response. Within the Health Cluster, the Data and Information Team is tasked with data management and dissemination concerning health crisis management. Their main responsibilities include 24-hour monitoring of health crises, data collection and processing, and timely dissemination of information. The team also maintains information systems and presents data in the form of graphs, tables, maps, and digital narratives. This information support is provided continuously across all three crisis stages: pre- crisis, emergency response, and post-crisis.

However, the policy does not specifically mandate the mapping of BEmONC (Basic Emergency Obstetric and Newborn Care) (*PONED*) and CEmONC (Comprehensive Emergency Obstetric and Newborn Care) (*PONEK*) facilities that are ready for activation in climate change-induced disaster situations. According to MISP standards, these facilities are essential for managing obstetric and neonatal complications that frequently arise during such emergencies.

6.2.2. Policy Gaps in Maternal-Neonatal Referral System Facility Services in Climate Disaster

The Regulation of the Minister of Health of the Republic of Indonesia No. 75 of 2019 on Health Crisis Management, Chapter II on Organization, Article 4 point (4), refers to the sub- cluster of health services responsible for providing individual health care, particularly emergency assistance prior to reaching health facilities and referral services. In this regulation, "referral" is generally understood as the mechanism for transferring patients from emergency locations or primary health care facilities to higher-level facilities with greater service capacity, to ensure continuity of care during health crises, including those caused by climate change

However, the policy does not specify the types of services or population groups to be referred to such as whether it includes maternal-neonatal cases, children, infectious diseases, trauma, and so on leaving the meaning broad and unspecific. It also lacks detailed explanation on what constitutes a referral in the context of disasters, how the referral process should flow, which facilities are designated for referrals, or how operational coordination systems are to be established. Yet, a referral system is crucial and must be supported by clear Standard Operating Procedures (SOPs) or protocols that align with established standards. There is no standardized referral SOP for maternal and newborn emergency cases, which can cause confusion in the flow of care and increase the risk of delayed treatment.

6.2.3. Policy Gaps on Reproductive Health Services in Maternal and Neonatal care in Climate Disasters

According to the *Regulation of the Minister of Health of the Republic of Indonesia No. 75 of 2019 on Health Crisis Management*, as outlined in the Annex, Chapter II on Health Crisis Management Activities, Section C on the Post-Crisis Stages, Point 3 specifies the implementation of rehabilitation and reconstruction activities in the health sector, including the provision of post-disaster health services. Among these services is reproductive health care.

This policy outlines key components such as intersectoral coordination, strengthening of family planning programs, maternal and child health services, gynecological care, and the prevention and treatment of sexually transmitted infections (STIs), including HIV. It also addresses the need to respond to gender-based violence (GBV), eliminate harmful traditional practices such as female genital mutilation (FGM), and ensure the continuous provision of the Minimum Initial Service Package (MISP).

Moreover, the regulation mandates regular monitoring and evaluation through the Regional Maternal and Child Health Surveillance System (Pantauan Wilayah Setempat Kesehatan Ibu dan Anak, or PWS-KIA). The findings from this system are to be used as the basis for transitioning to comprehensive reproductive health services. The policy further emphasizes the integration of antenatal care

(ANC), prevention of mother-to-child transmission of HIV (PMTCT), nutrition, and immunization within the reproductive health framework during crisis situations, especially in the event of disasters due to climate change.

In post-disaster reproductive health services including climate disasters, there are no maternal and neonatal health services. This is a gap in this regulatory policy because one of the main components in the MISP on sexual and reproductive services includes maternal and neonatal services.

Table 5. Policies governing Maternal and Neonatal Health Services during Climate Disasters

Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2019 concerning Health Crisis Management				
No	Category	Existing Policy	Standard	Gaps
1	Pre Health Crisis Stage, Health Facility Data and Information	CHAPTER II Organization Article 4 Number (5) The Health Cluster as referred to in Number (3) is supported by b. <i>Data and information team, which is tasked with organizing data and information management and disseminating information on Health Crisis Management.</i>	Minimum Initial Service Package (MISP) guidelines include mapping health facilities to BEmONC and CEmONC standards, ensuring delivery services, essential neonatal services, and maternal neonatal emergency services in climate change-induced disasters. (MoH, 2021)	There is no detailed information on health care facilities, including BEmONC (<i>PONED</i>) and CEmONC (<i>PONEK</i>) that can be activated during a climate disaster, especially floods.
2	Pre Health Crisis Stage Referral Procedure	CHAPTER II Organization Article 4 Number (4) Health cluster which includes a. <i>Health service sub-cluster, which is in charge of organizing individual health services, especially emergency aid services before health care facilities and referrals.</i>	Minimum Initial Service Package (MISP) guidelines are based on the results of health facility mapping, and referrals are made for maternal and neonatal emergencies during climate change-induced disasters (MOH, 2021).	Referrals to the health service subcluster have not been accompanied by detailed explanations regarding the form of SOPs, types of services, and mechanisms. Currently, there are no guidelines or technical instructions in the preparation of SOPs for referral of maternal and neonatal SRH services at the national and local levels. As a result, there are no clear guidelines on the referral system for maternal and neonatal SRH services in climate disasters, particularly floods.

Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2019 concerning Health Crisis Management				
No	Category	Existing Policy	Standard	Gaps
3	Post Health Crisis Stage, Reproductive Health Services	Outlined in the Annex, Chapter II on Health Crisis Management Activities, Section C on the Post-Crisis Stages, Point 3 specifies the implementation of rehabilitation and reconstruction activities in the health sector, including the provision of post-disaster health services. Recovery efforts carried out in reproductive health services include intersectoral coordination; strengthening of family planning programs; provision of maternal and child health services; gynecological services; prevention and treatment of sexually transmitted infections (STIs) and HIV, including preventive medicine; and the handling of gender-based violence (GBV). The policy also includes the elimination of female genital mutilation (FGM) and other harmful traditional practices that negatively affect adolescent reproductive health. It emphasizes the need to ensure the continued provision of the Minimum Initial Service Package (MISP) and mandates monitoring and evaluation using the Local Area Monitoring of Maternal and Child Health (PWS-KIA) mechanism. Based on the results of this monitoring and evaluation, the appropriate steps in guiding the transition and implementation are comprehensive reproductive health services such as antenatal care (ANC), prevention of mother-to-child transmission of HIV (PMTCT), nutrition, and immunization.	The Minimum Initial Service Package (MISP) regulates sexual and reproductive health services, including maternal and neonatal services during disasters caused by climate change (Ministry of Health, 2021).	Reproductive health services do not include maternal and neonatal health services in the post-health crisis stage, especially during climate change-induced disasters.

CHAPTER VII

THE NEW SKILLS MIDWIVES NEED AS PART OF THE CLIMATE SOLUTION: POLICY AND PROGRAMS INTERVENTIONS

As the impacts of climate change increasingly threaten the health and well-being of communities, midwives are emerging as critical frontline responders: not only in maternal and neonatal care, but also in broader climate resilience efforts. In disaster-prone and climate-vulnerable settings such as Indonesia, midwives must be equipped with a new set of competencies that extend beyond traditional clinical roles. This chapter explores the evolving skill set required for midwives to effectively contribute to climate adaptation and emergency response, including preparedness, psychosocial support, communication, and community advocacy. It also examines the necessary policy and programmatic interventions to support midwives in acquiring these climate-relevant competencies, with reference to international standards such as the International Confederation of Midwives (ICM) core competencies for humanitarian and crisis contexts.

7.1. New Skills Midwives Need to Be Part of the Climate Action

The midwifery service in disaster responses has really been affected by climate change. As a result, they are required to acquire new competencies to adapt to these new realities. To explore the needed skills, we adopted a scoping review to map the extent, range, and nature of research on this topic without limiting the study to specific designs or quality-assessed research.

Despite coming across very limited results on the scoping review, we were able to examine the skills and competencies that midwives need in response to climate-induced disasters, particularly floods and droughts, in Indonesia. Drawing from the two studies that met the scoping criteria, Pusporini et al., (2024) and Sajow, (2020), the findings are around four skill areas: emergency preparedness and triage, psychosocial support and emotional resilience, coordination and communication, and community engagement.

7.1.1. Skills on Emergency Preparedness and Triage

During disasters and emergencies, midwives in Indonesia serve as the first point of contact for sexual and reproductive health services, yet the revelation from our research suggests that they are not equipped enough in terms of disaster preparedness.

The statistics from Pusporini et al., (2024) show that 30.3% (20 responders) of the sample size surveyed among nurses and midwives lack sufficient competencies in disaster management. This limitation not only affects their technical capacities, but as well as their ability to effectively manage emergencies while under pressure. In addition, the same study revealed that 47% of the responders from the survey played an unfavorable role in disaster resilience and maternal care, particularly regarding their capacity to mitigate the adverse effects of emergencies on pregnant women. This further highlights the skill gap in this area. As a result, midwives' limited involvement and unpreparedness can lead to delayed maternal care, poor triage decisions, and failure to provide emergency services when a disaster arises.

Moreover, Sajow, (2020) further strengthens these observations, emphasizing the lack of structured disaster response modules in pre-service midwifery education in Indonesia. There is minimal integration of practical training on triage systems, maternal care in crisis settings, or simulation-based learning, all of which are essential for effective disaster preparedness. Furthermore, Indonesian midwifery programs do not emphasize MISRP for reproductive health in humanitarian settings, an internationally recognized standard that guarantees life-saving maternal care during the onset of emergencies.

These findings in Indonesia are consistent with much research from a global perspective. For example, WHO (2021) recommends that countries with high disaster vulnerability integrate emergency preparedness training, including triage protocols, evacuation planning, and maternal care in shelters, as part of their standard midwifery curriculum. The ICM Essential Competencies (2024a) further validate this need. Under Category 1 (General Competencies), sub-category 1p specifies that midwives should be able to prepare and respond appropriately during disasters, including skills in managing SRH needs in crisis settings.

7.1.2. Skills on Psychological Support and Emotional Resilience

Psychological support is an important component of maternal care that should not be undermined, particularly in disaster contexts where pregnant women face elevated stress, anxiety, and trauma. The scoping findings indicate that while midwives often find themselves providing such support during disasters, they do not receive any formal training on psychological First Aid. Pusporini et al., (2024) noted that among the favorable roles midwives routinely offer are emotional and psychological support and reducing anxiety and stress for pregnant women in community settings post-disaster; however, none of the respondents had received structured training in psychological first aid. Most midwives rely on their initiatives to provide emotional and psychological support to people with SRH needs during and after a disaster.

Sajow, (2020) substantiates this finding by emphasizing that Indonesian midwifery education does not incorporate competencies related to emotional needs, stress management, or trauma-informed care. As a result, midwives are not well equipped to support women who are navigating grief, loss, or displacement. The lack of this training also places emotional burdens on the midwives themselves, as they are left without tools for self-care or professional debriefing mechanisms after high-stress interventions.

Pregnant women's mental health issues can last long after the initial catastrophe response time, according to research by Giarratano et al. (2019). This emphasizes how critical it is for frontline providers to have psychosocial training and emotional resiliency. Psychosocial support skills, which include abilities like psychological first aid, active listening, and reflective practice, should be incorporated into maternal health education, according to both WHO (2021) and the ICM (2024a). Building emotional resilience in midwives is crucial for patient well-being, staff retention, and service quality in crisis-prone settings, according to (Dağlı et al., 2024). Therefore, improving the standard and scope of care given in emergencies will need to integrate psychological competencies into Indonesia's midwifery program.

7.1.3. Skills in Communication and Coordination Roles

To ensure disaster response is effective, it requires proper and coordinated teamwork, structured communication, and collaboration between various stakeholders in the health and emergency sectors. However, Indonesian midwives, who should play a crucial role, on many occasions, are left out of these formal processes. According to Pusporini et al., (2024), while midwives frequently serve as informal communicators, information relayers, and emotional anchors during disasters, their roles are not formally structured or supported by the health system. This lack of effective communication and coordination among key players undermines their significance in coordinating disaster response efforts. Sajow, (2020) supports this argument by revealing that it is very rare for midwives to be included in official disaster risk reduction (DRR) plans, particularly at district and provincial levels. Without standard operating procedures or established referral mechanisms, midwives are forced to rely on their own improvisation during crises, which sometimes leads to fragmented care and delayed responses. Sajow, (2020) study also points to a lack of training on how to navigate institutional hierarchies or coordinate with non-health actors like local government or disaster management agencies.

To ensure effective emergency response, early and continuous communication with midwives is essential to prevent worsening maternal health outcomes. International frameworks, including UNFPA (2024a), emphasize incorporating collaboration, synergy, and teamwork into midwifery curricula to strengthen preparedness and crisis response. The ICM (2024a) competencies also highlight communication and system navigation skills. Without these, Indonesian midwives risk exclusion from disaster management systems. Addressing this requires both curriculum reform and policy changes at the national and local levels to formally position midwives as key responders with coordination responsibilities, enabling their full integration into emergency response efforts.

7.1.4. Skills on Community Engagement, Education, and Advocacy

In a disaster context, midwives are viewed as trusted community leaders who are in a position to promote a healthy lifestyle, increase awareness of

community members, and render support in community-based readiness. However, the findings of the research indicate that this potential is not effectively explored as a result of insufficient institutional support and formal training

According to Pusporini et al. (2024), a major role could be played by midwives in terms of disaster preparedness through leveraging public school outreach and community education. Oftentimes, midwives informally execute these duties on a daily basis despite not being officially trained or being included in a public awareness campaign. In a similar vein, Sajow (2020) pointed out that the absence of Disaster Risk Reduction (DRR) teaching from conventional maternal health programs deprives communities of knowledge about dangers and midwives of their educational authority.

The importance of midwives engaging in advocacy to foster community resilience is supported by a sizable number of worldwide research studies. For instance, the United Nations Population Fund (UNFPA, 2021) emphasizes that midwives can become change agents when they receive proper training in risk communication and community mobilization. Moreover, the research of Dağlı et al. (2024) supports the integration of climate literacy and public activism in midwifery training. As the first medical responders during and after climate-induced disasters, midwives' advocacy, education, and community involvement abilities are also essential for enhancing resilience and adaptive ability (Rosa et al., 2021). The (ICM, 2024a) competency guideline also recognizes advocacy and public health education as core competencies under Category 1, reinforcing the need for midwives to engage beyond clinical settings. Thus, it would be a wise idea to seek alignment of the Indonesian curriculum and competency standard with these international standards that would enable midwives to have the required capacity to take on stronger community leadership roles during and after disasters.

7.2. Policy and programmatic interventions required to equip Indonesian midwives with climate-relevant competencies

This section draws on three core documents to assess Indonesia's readiness to integrate climate-relevant midwifery competencies: the ICM Essential Competencies (2024), the national midwifery curriculum, and the national

competency standards. The ICM framework provides an internationally recognized benchmark for midwifery care in climate and crisis settings, while the Indonesian documents define national educational and regulatory expectations. Together, they offer a comprehensive basis to evaluate the extent to which Indonesia's midwifery training and practice align with global standards for disaster-responsive sexual and reproductive healthcare.

7.2.1. Alignment with ICM Competencies: Knowledge to Provide Midwifery Care in Humanitarian Crises Induced by Climate Change

Understanding the Impact of Climate Change on Sexual, Reproductive, Maternal, Newborn, And Adolescent Health and Rights (SRMNH) (ICM Competency 1.p.k1)

The first knowledge of sub-competency (1.p.k1) requires midwives to understand how climate change affects SRMNH and Rights. However, an examination of Indonesia's Professional Midwifery Education Curriculum Guidelines (2019) shows a limited integration of climate-health linkages. Although the curriculum identifies critical abnormalities during perinatal periods and outlines needs across developmental stages (infants to preschoolers), these are not contextualized within the broader disruptions caused by climate change. The curriculum lacks explicit mention of how heat waves, waterborne diseases, or disaster-related displacements may increase infection risks or disrupt SRHR service access. Similarly, the Indonesian Midwifery Competency Standards (2022) do not explicitly acknowledge systemic or environmental drivers of maternal vulnerability. Unit Q.86KEB01.110.1 covers SRH services and includes elements such as infection control and sexual rights, but it remains primarily clinical and service-oriented, without referencing climate-sensitive contexts. As a result, while the foundation of maternal health knowledge is present, its application in climate-disrupted environments is underdeveloped.

Midwives' Role in Preparedness, Response, and Recovery (ICM Competency 1.p.k2)

The second knowledge-based competency (1.p.k2) emphasizes the midwife's role across various Stages of humanitarian crisis management. This is

especially relevant for Indonesia, where midwives are often among the few healthcare workers available in remote or disaster-affected areas. However, the current national curriculum does not clearly define the scope of midwives' responsibilities in flood, drought, or other climate-related emergencies. There is no inclusion of structured simulations or crisis-stage exercises in the curriculum that could prepare midwives for these roles. Nevertheless, the competency standard Q.86KEB02.113.1, which involves developing strategic maternal and child health work programs, makes brief reference to disaster and crisis contexts. While the standard mentions planning for services in “stable, crisis, pandemic, disaster, remote areas, border regions, and islands,” the treatment of climate-induced disasters is not detailed. As such, the alignment with ICM's expectation is partial, it reflects some awareness of midwifery roles in emergencies but lacks specificity on climate risks and preparedness strategies.

7.2.2. Alignment with ICM Competencies on the Skills and Behaviour to provide midwifery care on humanitarian crises caused by climate change

Adapt Clinical Skills and Protocols to Address Health Needs Arising from Specific Climate Disasters (ICM Competency 1.p.s1)

In the Indonesian midwifery curriculum, emergency care is generally addressed under broader health system disruption scenarios, yet there is no specific instruction on how midwives should adjust clinical protocols in response to health conditions that are intensified by climate events, such as dehydration and heat stress in pregnant women during extreme heat, or heightened risk of infection in flood-affected areas. The national competency standard, particularly in the unit focusing on health program strategies during crises (Q.86KEB02.113.1), mentions planning efforts in disaster contexts but does not elaborate on the clinical or procedural adaptations necessary in such scenarios. As a result, this area can be considered only partially aligned with the ICM standard. While the intent to prepare midwives for emergency response exists, the climate-specific clinical skills remain insufficiently developed.

Work Creatively with Limited Resources that May Be Further Strained by Climate-Related Disasters (ICM Competency 1.p.s2)

The curriculum does not yet provide targeted training or scenario-based simulations that reflect such realities, for instance, providing care during electricity outages, supply shortages, or service interruptions due to flooding or landslides. Although the competency standard acknowledges the use of available resources during crises, it does so in a general sense and without linking these challenges to climate impacts. Specifically, Q.86KEB02.113.1 supports the idea of comprehensive services using existing resources, but without the operational details needed for care delivery in disrupted ecosystems. The limited integration of practical skills and improvisation in response to environmental stressors indicates that the current approach is only partially aligned with ICM expectations. While the foundational elements are present, the systematic application of these skills in the context of climate emergencies remains underdeveloped.

Coordinate and Collaborate with Other Disaster Response Teams (ICM Competency 1.p.s3)

While Indonesia's midwifery curriculum emphasizes interprofessional collaboration to improve maternal and child health (as stated in PLO #11), this is framed largely within the context of standard health service delivery rather than emergency response. There is no dedicated content or training that prepares midwives to engage with civil protection authorities, humanitarian NGOs, or community-based disaster preparedness teams. Similarly, although the competency standard includes collaboration and referral competencies, such as those in Q.86KEB02.112.1 and Q.86KEB01.046.1, they are designed with stable health systems in mind. They do not address the dynamic, unpredictable networks and coordination mechanisms midwives must navigate during natural disasters or post-disaster displacement settings. In this regard, the alignment with ICM competencies is not yet present. This shows a significant limitation, as climate emergencies often demand swift collaboration beyond the health sector, particularly in Indonesia's archipelagic and hazard-prone regions.

7.3. Classification of Midwifery Competencies in Climate Disaster Settings

Based on a contextual analysis of the Indonesian midwifery landscape and the International Confederation of Midwives (ICM) essential competency framework, key competencies have been classified into core and additional categories. This classification considers their direct relevance to frontline service delivery during climate-induced disasters, their current representation in Indonesian midwifery policies and curricula, and the urgency of integrating them to close existing gaps in disaster preparedness and response.

7.3.1. Core Competencies

The following competencies are considered core: (1) understanding the impact of climate change on sexual, reproductive, maternal, newborn, adolescent health (SRMNAH); (2) clarifying the midwives' role across the disaster management phases; preparedness, response, and recovery; (3) adapting clinical skills and protocols to address climate-related health conditions; and (4) working creatively with limited resources during climate-related disasters. These form the foundational skill set required for midwives to deliver safe and responsive care in the face of climate emergencies.

These competencies are essential because they are directly linked to emergency care, such as emergency obstetric and newborn care (EmONC) in scenarios of extreme weather events like floods, heatwaves, and droughts. They also address the most urgent and observable gaps in Indonesia's midwifery education and competency standards, particularly in rural or disaster-prone areas where health systems are fragile. Without these competencies, midwives are severely limited in their ability to ensure SRH service continuity during crises, services that are often the most needed and the most at risk during disaster events.

7.3.2. Additional Competencies

One competency was classified as additional: (5) the ability to coordinate and collaborate with other disaster response teams. While still valuable, this skill is considered additional for the midwifery profession in the current Indonesian context. It involves system- level coordination, often beyond the traditional scope

of midwifery roles, and requires institutional support and cross-sectoral planning that may not yet be in place. Although this competency enhances midwives' ability to participate in a holistic emergency response system, its absence does not immediately hinder the provision of basic SRH services.

The additional classification reflects both the current limitations in midwifery education and practice in Indonesia and the broader structural requirements for effective disaster coordination. Strengthening this competency will be a necessary next step once core capacities are firmly in place, enabling midwives to integrate actors within the national disaster response.

CHAPTER VIII

CONCLUSION & RECOMMENDATIONS

8.1 Conclusion

Climate change causes natural disasters such as floods and droughts, as well as social and health impacts in Indonesia. In this sector, gender-based violence (GBV) and child marriage are on the rise. Women and children are among the groups most vulnerable to disasters caused by climate change. The Java region, especially West Java, is prone to flooding, causing displacement, poor living conditions, and economic hardship. During flood periods, the risk of GBV increases, as it does during drought conditions. East Nusa Tenggara is one of the drought-prone regions in Indonesia. These conditions increase the risk of GBV. Moreover, they exacerbate economic pressures, leading many people to decide to marry off their children to stabilize their finances. Disasters caused by climate change also have an impact on sexual and reproductive health (SRH) services, such as floods that damage health facilities and disrupt maternal and neonatal services such as Emergency Obstetric and Neonatal Care (PONEK) and referral systems

Indonesia has committed to and adopted international standards, but there are still policy gaps, such as policies on maternal and neonatal services in disaster preparedness. This situation has resulted in a weak government response to disasters caused by climate change.

Health workers such as midwives also face challenges even though they are much needed during disasters. Midwives in Indonesia still experience gaps in skills and competencies in disaster resilience and climate adaptation. The training curriculum for midwives in Indonesia still lacks essential components needed during disasters, such as psychosocial support, coordination, community advocacy, and emergency preparedness. Policies in Indonesia must align and integrate education and competencies with international standards, particularly in addressing climate change, as this is a vital step in ensuring the provision of sustainable and effective sexual and reproductive health (SRH) services amid rapidly increasing climate risks.

The policy framework must be strengthened in order to address these

challenges. Preparedness strategies and integrated approaches, particularly with regard to gender in disaster management, are also needed. Health service guidelines and standards must be developed, midwives' capacities must be enhanced, and addressing gender-based violence (GBV) must be a priority for prevention in disaster contingency plans. These steps are fundamental to reducing vulnerability and building resilient communities.

8.2 Recommendations

The table below presents policy and program gaps on issues of GBV and child marriage, maternal and neonatal health services, and midwifery in the context of climate-related disasters, while also providing recommendations aligned with standards and directed to relevant stakeholders.

Table 6. Gaps, Recommendations, and Targeted Stakeholders

Policy Area / Action Focus	Identified Gaps / Challenges	Recommendations / Proposed Actions	Stakeholders / Implementing Actors
Protection of women and children from gender-based violence in disasters (Regulation of the MoWECP Number 8 of 2024)			
(Actions 3.1) Preparation of disaster risk assessments, and contingency plans, with a gender perspective	Lack of clear guidance on the development and operationalization of the PP KBG PP Sub-cluster contingency plan.	Formulate and disseminate a standardized technical guideline that outlines the steps, components, and roles for developing a PP KBG PP Sub-cluster contingency plan.	MoWECP, UNFPA
(Actions 3.3) Disaggregated data based on gender, age, and vulnerability categories	Absence of a clear mechanism or detailed SOP for the national-level collection and sharing of disaggregated data related to GBV in disaster contexts.	1. Establish a Standard Operating Procedure (SOP) for the collection, management, and sharing of disaggregated data (by sex, age, and vulnerability) related to GBV in disaster settings. 2. Facilitate coordination between BNPB, MoWECP, and relevant local authorities to integrate disaggregated data and GBV indicators into disaster data systems.	1. MoWECP, BNPB (Disaster Information and Communication Data Center, and Operations Control Center), UNFPA 2. MoWECP, BNPB (Disaster Information and Communication Data Center, and Operations Control Center), BPS, UNFPA

Policy Area / Action Focus	Identified Gaps / Challenges	Recommendations / Proposed Actions	Stakeholders / Implementing Actors
The Preparation of Disaster Contingency Plans (Regulation of the National Disaster Management Agency Number 2 of 2023)			
The overall Preparation of Disaster Contingency Plans	Lack of adequate guidelines on how to incorporate GBV elements into disaster contingency plans	1. Create detailed technical guidelines that outline step-by-step methods for incorporating GBV risk mitigation, prevention, and response components into each section of disaster contingency plans. 2. Organize regular training sessions and workshops for government planners, BPBD staff, and PP KBG PP Sub-cluster members on how to mainstream GBV into contingency planning.	1. BNPB (Directorate of Preparedness), MoWECP, UNFPA 2. BNPB Directorate of Preparedness, MoWECP, UNFPA
(Chapter I.1.2) Legal Basis	GBV-related regulations are not consistently referenced	Include all relevant GBV and gender mainstreaming regulations to strengthen the legal foundation	BNPB (Directorate of Preparedness)
(Chapter I.1.3) Policy and Strategy	Gender and GBV considerations are not clearly operationalized	Revise policy narrative and strategy section to explicitly address GBV prevention and response in emergencies	BNPB (Directorate of Preparedness), BPBD
(Chapter II.2.3) Impact Assumptions	GBV risks are not identified as potential disaster impacts	Include GBV risks and harmful practices in the impact scenario section of the plan	BNPB (Directorate of Preparedness), BPBD
(Chapter III.3.1) Objectives	Gender and GBV not reflected in implementation principles	Integrate gender equality and GBV prevention as core objectives of contingency planning	BNPB (Directorate of Preparedness), BPBD
(Chapter III.3.2) Targets	GBV prevention is not established as a measurable target	Specify GBV prevention and response targets aligned with PP KBG PP Sub-cluster mandate	BNPB (Directorate of Preparedness), BPBD
(Chapter IV.4.3) Main Activities	Roles of PP KBG PP Sub-cluster are unclear	Clearly define and include responsibilities of the PP KBG PP Sub-cluster in key activities	BNPB (Directorate of Preparedness), BPBD, PP KBG PP

Policy Area / Action Focus	Identified Gaps / Challenges	Recommendations / Proposed Actions	Stakeholders / Implementing Actors
(Chapter VI.6.5) Information Management	Absence of mandate for disaggregated data collection and sharing	Clearly define and include for GBV-related disaggregated data collection, analysis, and coordination	BNPB (Directorate of Preparedness), BPBD, PP KBG PP
(Chapter VII.7.2) Testing and Simulation	GBV actors are not explicitly included in simulation exercises	Ensure PP KBG PP Sub-cluster is involved in contingency plan testing and simulation activities	BNPB (Directorate of Preparedness), BPBD, Sub-cluster Members
(Attachment 2) Task Force Composition	No designated focal point for GBV/PP KBG PP tasks	Assign a GBV focal point or lead within the task force structure	BNPB (Directorate of Preparedness), BPBD, PP KBG PP
(Attachment 4) Resource Estimation	Needs of women and children not explicitly included	Include GBV-related needs and resources in estimation, such as services, staff, and dignity kits	BNPB (Directorate of Preparedness), BPBD, PP KBG PP
(Attachment 6) Evacuation Plan	Lack of inclusive planning for vulnerable groups	Ensure evacuation plans consider safety and access for women, children, and vulnerable populations	BNPB (Directorate of Preparedness), BPBD

Policy Area / Action Focus	Identified Gaps / Challenges	Recommendations / Proposed Actions	Stakeholders / Implementing Actors
Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2019 on Health Crisis Management			
Pre-Health Crisis Stage			
<i>((Article 4(5)(b)): Data and information team: managing and disseminating Health Crisis Management</i>	There is no detailed information on health care facilities, including BEmONC (PONED) and CEmONC (PONEK) that can be activated during a climate disaster, especially floods.	1. Formulate a national policy that mandates routine mapping of BEmONC (PONED) and CEmONC (PONEK) facilities as part of disaster risk management to ensure the readiness of maternal and neonatal health services during climate-related disasters, with the objective of building a centralized national database of disaster-ready facilities. 2. Implement integrated mapping and preparedness programs for maternal and neonatal referral facilities, including capacity building initiatives at the provincial and city health office levels to support rapid response and effective service delivery during emergencies.	Health Crisis Center, Ministry of Health (MoH) Provincial and Municipal Health Offices and UNFPA
<i>((Article 4(4)(a)): Health service sub-cluster manages emergency and referral services</i>	Referrals to the health service subcluster have not been accompanied by detailed explanations regarding the form of SOPs, types of services, and mechanisms. Currently, there are no guidelines or technical instructions in the preparation of SOPs for referral of maternal and neonatal SRH services at the national and local levels. As a result, there are no clear guidelines on the referral system for maternal and neonatal SRH services in climate	1. Establish a national policy to systematize Standard Operating Procedures (SOPs) for maternal and newborn referral systems in climate-related disasters, ensuring that these SOPs include key components such as evacuation routes, estimated travel times, emergency communication channels, and referral facility networks, and that they can be adapted for implementation at the regional and local levels. 2. Enhance the maternal and neonatal emergency referral system by aligning	Health Crisis Center, Ministry of Health (MoH) Provincial and Municipal Health Offices and UNFPA

Policy Area / Action Focus	Identified Gaps / Challenges	Recommendations / Proposed Actions	Stakeholders / Implementing Actors
	disasters, particularly floods.	national SOPs with MISP standards, conducting pilot trials in disaster-prone areas, mapping efficient and safe referral routes, setting up a 24/7 referral communication system, and delivering technical training for frontline health personnel and facility managers.	
Post-Health Crisis Stage			
Reproductive Health Services include Intersectoral coordination & family planning, Mother, child, and gynecological services, STI/HIV prevention & preventive medicine, GBV handling, Elimination of FGM & harmful traditional practices, Minimum Initial Service Package (MISP) continuation, Monitoring & evaluation (PWS-KIA), Transition to comprehensive RH services, Integrated ANC, PMTCT, nutrition & immunization	Reproductive health services do not include maternal and newborn health services in the post-health crisis phase, especially during climate change-induced disasters.	1. Revision of the post-health crisis stage to include maternal and neonatal health services as a core component of reproductive health recovery in the context of disasters caused by climate change 2. Develop and implement recovery programs that operationalize integrated maternal and neonatal services within reproductive health efforts post-health crisis, supported by clear guidelines and coordinated actions at national and subnational levels.	Health Crisis Center, Ministry of Health (MoH)

Policy Area / Action Focus	Identified Gaps / Challenges	Recommendations / Proposed Actions	Stakeholders / Implementing Actors
Indonesian Midwifery Curriculum and Indonesia Midwifery Competency Standard			
Indonesian Midwifery Curriculum (Guidelines For Organization Midwife Professional Education Study Program - Decree of the Head of the Health Human Resources Development and Empowerment No HK.01.07/1.2/0394/2020)	Some gaps identified after seeking alignment with ICM Essential Competency for Midwifery Practices (1p) (2024): - Indonesian midwifery curriculum does not include modules or learning outcomes that explore the links/integration between climate change and maternal or adolescent health. - The curriculum did not define what preparedness, response, or recovery roles midwives are expected to fulfill during floods, droughts, or SRH disruptions. While emergency care exists in general terms, the curriculum does not cover specific clinical conditions exacerbated by climate events, such as dehydration, hyperthermia, or maternal malnutrition in drought. - There is no content that trains midwives to adjust procedures when working in disrupted environments (e.g., no electricity, minimal supplies, overcrowded shelters). - Collaboration exists in the curriculum, but does not mention how to engage with non-health responders (e.g., Red Cross, BNPB) or on mechanisms like referral networks or health cluster systems during crises. Referral systems are only taught in clinical care units.	- Revise the national midwifery curriculum to include climate-health linkages in SRHR modules. - Provide technical assistance and in-service training. - Issue technical clinical protocols for climate-exacerbated conditions. Midwifery schools must incorporate these into EmONC training and collaborate with disaster nutrition units.	Ministry of Health (Agency for the Development and Empowerment of Health Human Resources, Center for Health Human Resources Education), UNFPA

Policy Area / Action Focus	Identified Gaps / Challenges	Recommendations / Proposed Actions	Stakeholders / Implementing Actors
Indonesia Midwifery Competency Standard (Minister of Health Decree No. HK.01.07/MENKES/1261/2022)	- There is no competency unit that explicitly acknowledges the links between crises and SRHR. The document remains clinical and service-oriented without addressing systemic, social, or environmental determinants of maternal vulnerability. - The document did not explicitly mention climate-induced disaster; however, disaster is mentioned there. - The document includes service adaptation for crises and disasters, but it does not explicitly address clinical skill adaptation or protocol modification specific to climate-induced events such as floods, drought, or vector-borne disease shifts. - The document states competency of midwives to carry out midwifery and/or health services comprehensively by utilizing the potential and available resources. This applies to services in stable, crisis, disaster, and remote contexts, requiring creative adaptation to limited conditions. However, there is no explicit mention of resource strain due to climate-related disasters (e.g., supply chain disruption, infrastructure damage). - The document states the collaboration, but it is generally defined in terms of working with other health workers, not with emergency or humanitarian responders. Moreover, the competency covers referrals in fully functioning systems. It does not cover referral prioritization or informal coordination methods common in emergencies.	- Jointly establish national guidelines on the roles of midwives across disaster phases and update competency standards to reflect these roles. - Establish formal channels for midwife participation in local disaster planning and simulations. The MoH should update referral training to include inter-agency collaboration - Co-develop simulation training packages for midwives to practice delivering care in low-resource settings. These should be mandatory in pre-service training and Continuing Professional Development (CPD) modules.	- The Indonesian Midwifery Association, BNPB, and Ministry of Health - BPBD and local governments - BNPB and Ministry of Health

REFERENCES

- Adnani, Q. E. S., O'Connell, M. A., & Homer, C. S. E. (2021). Advocating for midwives in low-to-middle income countries in the COVID-19 pandemic. *Women and Birth*, 34(6), 501–502. <https://doi.org/10.1016/j.wombi.2021.08.006>
- Adnani, Q. E. S., Okinarum, G. Y., Muchlis, M., Susanti, A. I., Gumilang, L., Adepoju, V. A., & McKenna, L. (2025). Scope, significance and sustaining the midwifery profession in Indonesia: Commentary. *Midwifery*, 142, 104286. <https://doi.org/10.1016/j.midw.2025.104286>
- Agustina, D. N., Sagara, R., & Kurnia, A. (2022). Characteristics of Child Marriage in West Java Province, 2018 (Using the Generalized Linear Model with Empirical Bayes). *AIP Conference Proceedings*, 2662(December). <https://doi.org/10.1063/5.0108844>
- Anisa, Fedryansyah, M., & Santoso, M. B. (2021). Strategi Pencegahan Kekerasan Terhadap Perempuan Dalam Situasi Bencana (Studi Kasus Penerapan Strategi Pencegahan Dp3Akb Jabar). *Share : Social Work Journal*, 10(2), 175. <https://doi.org/10.24198/share.v10i2.31243>
- Apriyani, A. (2022). Hubungan pengetahuan dan pengalaman dengan kesiapsiagaan ibu hamil dalam menghadapi bencana banjir. STIKes RSPAD Gatot Soebroto. <http://repository.stikesrspadgs.ac.id/2196/1/Agista%20Apriyani.pdf>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- BADILAG. (2025). Rekap Data Jenis Perkara Dispensasi Kawin Peradilan Agama di Jawa Barat (Recap of Data on Types of Marriage Dispensation Cases in Religious Courts in West Java) https://kinsatker.badilag.net/JenisPerkara/perkara_persatker/362/2024
- BNPB. (2008). *BNPB Regulation Number 4 of 2008 on Guidelines for Preparing Disaster Management Plans*. Jakarta.
- BNPB. (2012). *BNPB Regulation Number 2 of 2012 on General Guidelines for Disaster Risk Assessment*. Jakarta.
- BNPB. (2021). Kajian Risiko Bencana Nasional Provinsi Nusa Tenggara Timur 2022 -2026. Jakarta.
- BNPB. (2021). Kajian Risiko Bencana Nasional Provinsi Jawa Barat 2022 - 2026 (National Disaster Risk Assessment of West Java Province 2022 - 2026). In BNPB Press, Jakarta
- BNPB. (2023). *Peraturan Kepala BNPB Nomor 1 Tahun 2023 tentang Satu Data Bencana*. Jakarta.
- BNPB. (2023). *BNPB Regulation Number 2 of 2023 on Disaster Contingency Planning*. Jakarta.

- BNPB. (2025). *BNPB Regulation Number 1 of 2025 on the National Disaster Management Plan 2020–2024*. Jakarta.
- BNPB. (2025). *Flood Events in West Java*. <https://dibi.bnpb.go.id/dibi/>
- BPBD. (2023). Rencana Kontijensi Bencana Banjir DAS Citarum Jawa Barat. Kota Bandung.
- BPS Jawa Barat. (2025). *Provinsi Jawa Barat Dalam Angka (West Java Province in Figures)*
<https://jabar.bps.go.id/id/publication/2025/02/28/d906b36c4b300ab77908dfe2/provinsi-jawa-barat-dalam-angka-2025>.
- BPS NTT. (2021). Badan Pusat Statistik Provinsi Nusa Tenggara Timur.
- Candraningrum, D., Badawi, & Hunga, A. I. R. (2021). A Scoping Study Interlinkages between Women's SRHR Climate Change Mainstreaming Policy in Central Java, Indonesia. In *A Scoping Study Interlinkages between Women's SRHR & Climate Change: Mainstreaming Policy in Central Java, Indonesia* (pp.1-40). Yayasan Jurnal Perempuan. https://www.researchgate.net/publication/351984352_A_Scoping_Study_Interlinkages_between_Women's_SRHR_Climate_Change_Mainstreaming_Policy_in_Central_Java_Indonesia
- Churchill, R. T., & Avery, M. D. (2023). The Heat is On: Imperative for Midwifery Engagement in Climate Change. *Journal of Midwifery & Women's Health*, 68(3), 313–314. <https://doi.org/10.1111/jmwh.13517>
- Chee Liberty. (2018). *Women in Natural Disasters: Indicative Findings in Unraveling Gender in Institutional Responses: An ASEAN Intergovernmental Commission on Human Rights (AICHR) Thematic Study*.
- Dağlı, E., Reyhan, F. A., & Kirca, A. Ş. (2024). Midwives' views about the effects of climate change on maternal and child health: A qualitative study. *Women and Birth*, 37(2), 451–457. <https://doi.org/10.1016/j.wombi.2024.02.001>
- Dartanto, T. (2022). Natural disasters, mitigation and household welfare in Indonesia: Evidence from a large-scale longitudinal survey. *Cogent Economics and Finance*, 10(1), 1–31. <https://doi.org/10.1080/23322039.2022.2037250>
- Escobar Carías, M. S., Johnston, D. W., Knott, R., & Sweeney, R. (2022). Flood disasters and health among the urban poor. *Health Economics (United Kingdom)*, 31(9), 2072–2089. <https://doi.org/10.1002/hec.4566>
- Gan, C. C. R., Oktari, R. S., Nguyen, H. X., Yuan, L., Yu, X., Kc, A., ... & Chu, C. (2021). A scoping review of climate-related disasters in China, Indonesia and Vietnam: disasters, health impacts, vulnerable populations and adaptation measures. *International Journal of Disaster Risk Reduction*, 66, 102608.
- Giarratano, G. P., Barcelona ,Veronica, Savage ,Jane, & and Harville, E. (2019). Mental health and worries of pregnant women living through disaster recovery. *Health Care for Women International*, 40(3), 259–277. <https://doi.org/10.1080/07399332.2018.1535600>

- Hameed, M., Ahmadalipour, A., & Moradkhani, H. (2020). Drought and food security in the middle east: An analytical framework. *Agricultural and Forest Meteorology*, 281, 107816.
- Herdiani, T. N. (2024). Peran bidan dalam manajemen bencana pada ibu hamil. *Jurnal Bidan Mandiri Cendikia*, 5(1), 45-53. <https://journal.mandiracendikia.com/index.php/jbmc/article/download/959/762/6494>
- Houser, R. S. (2022). Climate change and emergency management: The threat of cascading consequences. *Journal of Emergency Management and Disaster Communications*, 3(01), 3-12.
- Hudaya, Y., Hubeis, A. V. S., Sugihen, B. G., & Fatchiya, A. (2021). Empowering the Fish Processor Community in West Java Province. *Social Change*, 51(4), 566-576.
- ICM. (2024). *Interlocked: Midwives and the Climate Crisis*. International Confederation of Midwives. <https://internationalmidwives.org/resources/interlocked-midwives-and-climate/>
- ICM. (2024a). ICM Essential Competencies for Midwifery Practice. The Hague: International Confederation of Midwives; 2024. Licence: CC BY-NC-SA 4.0. Retrieved from <https://internationalmidwives.org/resources/essential-competencies-for-midwifery-practice/>
- ICM. (2024b). *The Role of Midwives in Humanitarian Crises*. International Confederation of Midwives. <https://internationalmidwives.org/resources/role-of-the-midwife-in-disaster-emergency-preparedness/>
- Ikatan Bidan Indonesia. (2013). Para bidan turun tangan bantu korban banjir. *ANTARA News*. <https://www.antaranews.com/berita/354205/para-bidan-turun-tangan-bantu-korban-banjir>
- Indah, F. T. N., Hastuti, D., & Yuliati, L. N. (2024). Understanding The Cultural Values in Traditional Sundanese Parenting: A Narrative Literature Review. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 9(2), 197–210. <https://doi.org/10.14421/jga.2024.92-02>
- Indonesia Ministry of Health. (2019). *Pedoman Penyelenggaraan Program Studi Pendidikan Profesi Bidan* (Indonesia's Professional Midwifery Education Curriculum Guidelines). Jakarta: Indonesia Ministry of Health. Retrieved from: https://repositori-ditjen-nakes.kemkes.go.id/387/2/PEDOMAN-PENYELENGGARAAN-PROGRAM-STUDI-PENDIDIKAN-PROFESI-BIDAN_Cetak.Pdf
- Indonesia Ministry of Health. (2022). *Standar Kompetensi Kerja Bidang Kebidanan* (Indonesian Midwifery Competency Standard). Jakarta: Indonesia Ministry of Health.
- International Confederation of Midwives. (2023). *The impact of climate change on maternal and newborn health*.

<https://www.internationalmidwives.org/assets/files/general-files/2023/01/icm-brief-the-impact-of-climate-change-on-maternal-and-newborn-health.pdf>

- Ipas Indonesia. (2023). Krisis iklim dan kesehatan reproduksi perempuan: Seruan untuk kolaborasi. <https://www.ipasindonesia.org/krisis-iklim-dan-kesehatan-reproduksi-perempuan-seruan-untuk-kolaborasi/>
- Kemenko PMK. (2023). *Perkawinan Anak di Cirebon Tinggi, Pemerintah Rancang Program Intervensi | Kementerian Koordinator Bidang Pembangunan Manusia dan Kebudayaan*. <https://www.kemenkopmk.go.id/perkawinan-anak-di-cirebon-tinggi-pemerintah-rancang-program-intervensi>
- Kemenpppa. (2025). *GBV cases in West Java*. <https://kekerasan.kemenpppa.go.id/>
- Kementerian Pemberdayaan Perempuan dan Perlindungan Anak. (2022).
- Kementerian Kesehatan Republik Indonesia. (2019). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 75 Tahun 2019 tentang Penanggulangan Krisis Kesehatan*. <https://peraturan.bpk.go.id/Details/139918/permenkes-no-75-tahun-2019>
- Kementerian Kesehatan Republik Indonesia. (2025). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 2 Tahun 2025 tentang Penyelenggaraan Upaya Kesehatan Reproduksi*.
- Kementerian Kesehatan RI. (2019). Kemenkes pastikan ketersediaan pelayanan kesehatan reproduksi pascatsunami. <https://sehatnegeriku.kemkes.go.id/baca/umum/20190102/1329013/kemenkes-pastikan-ketersediaan-pelayanan-kesehatan-reproduksi-pascatsunami/>
- Kementerian Pemberdayaan Perempuan dan Perlindungan Anak Republik Indonesia. (2024). *Peraturan Menteri Pemberdayaan Perempuan dan Perlindungan Anak Nomor 8 Tahun 2024 tentang Pelindungan Perempuan dan Anak dari Kekerasan Berbasis Gender dalam Penanggulangan Bencana*. Jakarta: Kementerian PPPA.
- Kolimon, M. (2019). Women, Drought and Migration: reading the Book of Ruth from a Feminist Perspective in East Nusa Tenggara, Indonesia. Dom Helder Camara Lecture (November 25th, 2019). <https://www.yasap.nl/images/yasapnederland/documenten/ReadingRuthinTimorContextmerykolimon> [accessed on 10 April 2021].
- Komnas Perempuan. (2024). *Catatan Tahunan Komnas Perempuan Tahun 2023 "Momentum Perubahan: Peluang Penguatan Sistem Penyikapan di Tengah Peningkatan Kompleksitas Kekerasan terhadap Perempuan"*. 37–48.
- Ku Carbonell, S. E., Ogbay, P., Vanstone, M., Gombay, C., & Darling, E. K. (2024). Midwives' adaptation of their practice, role, and scope to ensure access to sexual and reproductive services during humanitarian crises: A scoping review. *Midwifery*, 136, 104065. <https://doi.org/10.1016/j.midw.2024.104065>
- Kumala Dewi, L. P. R., & Dartanto, T. (2018). Natural disasters and girls vulnerability: is child marriage a coping strategy of economic shocks in

- Indonesia? *Vulnerable Children and Youth Studies*, 14(1), 24–35. <https://doi.org/10.1080/17450128.2018.1546025>
- Kuswanto, H., Hibatullah, F., & Soedjono, E. S. (2019). Perception of weather and seasonal drought forecasts and its impact on livelihood in East Nusa Tenggara, Indonesia. *Heliyon*, 5(8).
- Latifa, A., Primadani, A. D., Fitriyyah, N. R., & Kartiasih, F. (2023). Mapping and estimating the impact of drought on food crop farmers using remote sensing in East Nusa Tenggara Province. *TheJournalish: Social and Government*, 4(5), 309-335.
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, 5(1), 69. <https://doi.org/10.1186/1748-5908-5-69>
- Mollard, E., & Cottrell, C. (2023). Maternal Adaptive Capacity: A Strengths-Based Theory to Guide Maternal Health Research. *Journal of Midwifery & Women's Health*, 68(3), 376–382. <https://doi.org/10.1111/jmwh.13485>
- Miharja, D. (2022). Perilaku Keberagamaan Masyarakat Sunda Jawa Barat. *Jurnal Perspektif*, 6(1), 74–88.
- Nuraisya, W., & Maimonah. (2023). Penatalaksanaan asuhan kebidanan holistik pada ibu hamil pasca bencana banjir. *Jurnal Vokasi Kesehatan*, 9(2), 112-119. <https://journal.bengkuluinstitute.com/index.php/juvokes/article/download/258/297/2343>
- Nursal, D. G. A., Aprianty, & Halawa, S. P. (2021). The implementation of reproductive health program during the flash flood disaster in Sijunjung, West Sumatra in 2018. *IOP Conference Series: Earth and Environmental Science*, 708(1), 012098. <https://doi.org/10.1088/1755-1315/708/1/012098>
- O'Connell, M., Catling, C., Mintz-Woo, K., & Homer, C. (2024). Strengthening midwifery in response to global climate change to protect maternal and newborn health. *Women and Birth*, 37(1), 1–3. <https://doi.org/10.1016/j.wombi.2023.10.004>
- Orderud, H., Choudhury, R., Akter, S., & Roy, M. (2022). Floods and maternal healthcare utilisation in Bangladesh. *Population and Environment*, 44, 193–225. <https://doi.org/10.1007/s11111-022-00400-0>
- OECD. (2017). *OECD DAC Rio Markers for Climate*.
- Pope, D. H., McMullen, H., Baschieri, A., Philipose, A., Udeh, C., Diallo, J., & McCoy, D. (2023). What is the current evidence for the relationship between the climate and environmental crises and child marriage? A scoping review. *Global public health*, 18(1), 2095655.
- President of the Republic of Indonesia. (2020). *Presidential Regulation Number 87 of 2020 on the Master Plan for Disaster Management 2020–2044*. Jakarta: State Secretariat.
- Presiden Republik Indonesia. (2024). *Peraturan Presiden Republik Indonesia Nomor 55 Tahun 2024 tentang Unit Pelaksana Teknis Daerah*

Perlindungan Perempuan dan Anak. Jakarta: Sekretariat Negara.

- Pusporini, L. S., Wulandini, P., Ambarsari, W. N., Judijanto, L., Ambarwati, E. R., Direja, A. H. S., Karwati, & Herdiani, T. N. (2024). Midwives, Nurses Crucial for Disaster-Resilient Maternal Care and Preparedness Strategies. *Journal of Angiotherapy*, 8(5). <https://doi.org/10.25163/angiotherapy.859715>
- Republic of Indonesia. (2007). *Law Number 24 of 2007 on Disaster Management*. Jakarta: State Secretariat.
- Republic of Indonesia. (2014). *Law Number 35 of 2014 on Amendment to Law Number 23 of 2002 on Child Protection*. Jakarta: State Secretariat.
- Republic of Indonesia. (2019). *Law Number 16 of 2019 on Amendment to Law Number 1 of 1974 on Marriage*. Jakarta: State Secretariat.
- Rizal, A., Apriliani, I. M., & Permana, R. (2020). Sustainability assessment of coastal development in southern region of West Java province, Indonesia. *Geo Journal of Tourism and Geosites*, 30, 808-817.
- Rosa, W. E., Catton, H., Davidson, P. M., Hannaway, C. J., Iro, E., Klopper, H. C., Madigan, E. A., McConville, F. E., Stilwell, B., & Kurth, A. E. (2021). Nurses and Midwives as Global Partners to Achieve the Sustainable Development Goals in the Anthropocene. *Journal of Nursing Scholarship*, 53(5), 552–560. <https://doi.org/10.1111/jnu.12672>
- Rahayu, R., Mathias, S. A., Reaney, S., Vesuviano, G., Suwarman, R., & Ramdhan, A. M. (2023). Impact of land cover, rainfall and topography on flood risk in West Java. *Natural Hazards*, 116(2), 1735–1758. <https://doi.org/10.1007/s11069-022-05737-6>
- Sajow, H. S. (2020). *Better Preparedness for Better Responses: Integrating Maternal and Reproductive Health into Disaster Risk Management: A Qualitative Case Study from Indonesia*.
- UNDRR. (2020). *Integrating disaster risk reduction and climate change adaptation in the UN sustainable development cooperation framework: Guidance note*. UNDRR.
- UNFPA Indonesia, MOWECP Indonesia, Yayasan Kerti Praja, & Yayasan Pulih. (2024). The Risk Of Gender-Based Violence In Disasters And Mitigation Recommendations In Indonesia. *MOWECP Indonesia, Yayasan Kerti Praja, Yayasan Pulih, UNFPA, C*, 1–2.
- UNFPA. (2021). *Child Marriage and Environmental Crises: An Evidence Brief*. <https://esaro.unfpa.org/en/publications/>
- UNFPA. (2021). *The State of the World's Midwifery 2021*. <https://www.unfpa.org/publications/sowmy-2021>
- UNFPA. (2024a). *Midwives: A vital climate solution*. UNFPA Asiapacific. <https://asiapacific.unfpa.org/en/news/midwives-vital-climate-solution>
- UNFPA. (2024b, July 27). *The role of midwives in a climate-vulnerable world*. UNFPA Asiapacific. <https://asiapacific.unfpa.org/en/news/role-midwives>

- UN-Habitat. (2024). West Java: SDGs Voluntary Local Review 2023. United Nations Human Settlements Programme.
- UNICEF. (2020). Prevention of Child Marriage Acceleration that Cannot Wait. *Unicef*, 71.
<https://www.unicef.org/indonesia/sites/unicef.org.indonesia/files/2020-06/Prevention-of-Child-Marriage-Report-2020.pdf>
- UN Women Indonesia. (2023). *Gender and climate change: Strengthening women's resilience in Indonesia*.
- van Daalen, K. R., Kallesøe, S. S., Davey, F., Dada, S., Jung, L., Singh, L., ... & Nilsson, M. (2022). Extreme events and gender-based violence: a mixed-methods systematic review. *The Lancet Planetary Health*, 6(6), e504-e523.
- WHO. (2021, November 9). *Framework for strengthening health emergency preparedness in cities and urban settings*.
<https://www.who.int/publications/i/item/9789240037830>
- World Bank. (2021). *Climate risk country profile: Indonesia*.
https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15504-Indonesia%20Country%20Profile-WEB_0.pdf
- World Bank. (2012). More Than Mainstreaming : Promoting Gender Equality and Empowering Women through Post-Disaster Reconstruction. *Java Reconstruction Fund*.
- World Bank. (2021). *World Bank Climate Change Knowledge Portal*. World Bank Climate Change Knowledge Portal.
<https://climateknowledgeportal.worldbank.org/>