

UNSEEN DRIVERS OF CLIMATE CHANGE AND EARLY MARRIAGE NARRATIVES IN COASTAL JAKARTA

Putri Maharani*

School of Professional Studies, Columbia University, New York, United States of America 10027
Pm3385@columbia.edu

Received: 8th December 2025/ Revised: 3rd February 2026/ Accepted: 4th March 2026

How to Cite: Maharani, P. (2026). Unseen drivers of climate change and early marriage narratives in coastal Jakarta. *Humaniorajicas*, 17(2), 165-177. <https://doi.org/10.21512/humaniora.v17i2.14900>

ABSTRACT

Environmental decline in North Jakarta, marked by rising temperatures, pollution, coastal flooding, and falling fish stocks, has intensified economic hardship for fishing families, sometimes coinciding with higher rates of early marriage as a perceived way to reduce household burdens. Using discourse analysis of archived reports and documentaries by Mongabay and Deutsche Welle, this article examines how the two nature-conservation-oriented media outlets report on this issue, and argues that their narratives frequently frame early marriage as a direct and rational adaptation to climate change while portraying girls as passive victims of environmental loss. Such representations risk oversimplifying a complex social phenomenon and obscuring long-standing drivers of early marriage, including chronic poverty, unstable informal labor, limited access to secondary education, and deeply rooted gender and faith-based norms that shape family decision-making. By reducing early marriage to a linear consequence of ecological collapse, these narratives flatten local agency and overlook the intergenerational transmission of survival strategies that long predate current climate pressures. The article contends that climate stress functions less as an original cause than as an aggravating condition that intensifies existing vulnerabilities, pushing families to prioritize immediate survival over long-term investment in girls' education. Through critical media analysis, this study highlights how victim-centered portrayals can inadvertently depoliticize poverty and normalize gendered sacrifice. It concludes that more context-sensitive reporting is needed, and that effective policy responses must focus on securing livelihoods, stabilizing coastal economies, and expanding educational access, rather than treating early marriage primarily as an environmental adaptation problem.

Keywords: climate change, coastal livelihoods, early marriage, media narrative, gender victimhood

INTRODUCTION

Why is Indonesia, especially Jakarta, racing to become a global city while its coastal communities are left to survive on collapsing shorelines and shrinking catches? The national and provincial governments explicitly position Jakarta as a competitive global metropolis through the continuous major urban infrastructure and redevelopment projects that present a huge consequence on living sustainability. Reclamation, land conversion, and megaprojects along Jakarta Bay have weakened natural coastal defenses, aggravated tidal flooding, and worsened the local effects of the global climate crisis (Akbar et al., 2024). In practice, climate change in Jakarta is both a global

phenomenon and a locally manufactured crisis, which is intensified by rapid urban growth, environmental degradation, institutional fragmentation, and weak governance (Ardinata & Manurung, 2025; Dwirahmadi et al., 2023; Surtiari et al., 2025; Zahra & Rahadin, 2025).

Recent studies indicate that the deterioration of coastal ecosystems has begun to undermine fisheries productivity in Indonesian waters, including areas surrounding Jakarta Bay. Evidence from Indonesia shows that ecosystem degradation, particularly the loss of mangrove habitats, has measurable negative effects on fisheries productivity and fisher livelihoods (Yamamoto, 2023). At the local scale, urban-driven eutrophication and declining water quality

in Jakarta Bay have been shown to disrupt pelagic fish productivity, signaling stress on nearshore fish stocks (Setiawan et al., 2024). Fisher households in North Jakarta now return from the sea with smaller and fewer catches compared to the mid-2010s. At the same time, some seafood harvested from Jakarta Bay is even contaminated with heavy metals and unsafe for consumption. These shrinking and poisoned catches undermine both income and food security, leaving thousands of fishing families in a precarious situation that intensifies their vulnerability.

Exclusionary city development forces fishers to rely on their behavioral adaptation which is not transformative (Wannewitz et al., 2024). As household incomes fall, poverty becomes more entrenched. With few livelihood alternatives and rising daily costs, families turn to short-term strategies to ease their economic burdens. One of the most common and destructive of these strategies is early or underage marriage. Daughters are married off not because of cultural preference but because they are framed as an extra mouth to feed. In these moments of crisis, patriarchal practices reassert themselves, where men, especially fathers or male heads of households, position marriage as a necessary solution to economic desperation (Nabila et al., 2022). In contrast for young women, the consequences are devastating. They lose access to education, marry with little understanding of their rights, and enter households where reproductive health knowledge is minimal (Rosmiati et al., 2022). Many give birth at an early age, often to multiple children, and are forced to struggle with the compounded demands of childcare and informal labor.

Prior research has identified child marriage as a multidimensional phenomenon shaped by interacting factors across individual, interpersonal, community, and societal levels (Pourtaheri et al., 2024). While this body of scholarship provides a comprehensive understanding of structural drivers, less attention has been paid to how media narratives reshape public interpretations of these causes. In particular, the tendency of environmental reporting to link child marriage directly to climate-change-driven poverty risks simplifying these multilayered dynamics and reinforcing portrayals of marginalized communities as passive victims. This study addresses that gap by examining how conservation-oriented media construct the relationship between climate change and early marriage in North Jakarta, and by arguing for more context-sensitive reporting that centers livelihood insecurity, educational barriers, and structural inequality rather than climate determinism alone.

METHODS

This research investigates how the climate crisis due to urban overdevelopment and patriarchal power intersect to reproduce cycles of poverty through early marriage in North Jakarta’s coastal communities. Using media and discourse analysis,

this article examines narratives documented by two nature conservation-focused media outlets, *Mongabay* (2024) and *Deutsche Welle* (2025). This writing captures marginalized stories through existing archives and media (PalMBERGER, 2025). For the details of the sources, the points of view of people directly involved in early marriage are extracted, either as the agents or victims, captured by both media documentaries.

Table 1 Media Sources

Media and Publication	Headline	Point of View
Mongabay Indonesia (2024)	Ind: <i>Mengapa Pernikahan Anak Masih Terjadi di Pesisir Jakarta?</i>	Arifudin, a green mussel fisher who described the difficulty in getting catches due to climate change
October 30, 2024	Eng: <i>Why Does Child Marriage Still Happen in the Jakarta Coastal Area?</i>	Ranti, a housewife who works as a green mussel shucker who got married at a young age and married off her children at a young age Siti, Ranti’s eldest daughter who was forced to get married a few months after graduating from primary school Azizah, Ranti's second daughter, who willingly got married when she was 17 years old because she thought her friends led a happy life by getting married at a young age
Deutsche Welle (2025)	Ind: <i>Pernikahan Anak Meningkat di Jakarta, Perubahan Iklim Jadi Sebabnya?</i>	Wakid, a fisher who described how environmental degradation has badly affected his livelihood
April 29, 2025	Eng: <i>Child Marriage Records An Increase in Jakarta, Because of Climate Change?</i>	Hikmah, a housewife who got married when she was 13 years old and is working as a food seller to help her family make some earnings

Summarized in Table 1, both *Mongabay* (2024) and *Deutsche Welle* (2025) rely primarily on personal testimonies from fishers and female family members to explain the persistence of early marriage in Jakarta’s coastal communities, linking household

decisions closely to environmental and livelihood decline. Other media outlets, including *Republika* (2025), *National Geographic* (2024), and *Metro TV* (2025), cover similar issues related to child marriage in Jakarta's coastal area. However, the coverage from *National Geographic* (2024) also takes points of view from the same informants as quoted by *Mongabay* (2024). The coverage by *Republika* (2025) also highlights the same person as *Deutsche Welle* (2025) does. Meanwhile, *Metro TV* (2025) emphasizes early marriage itself as a single-source issue, without highlighting the related climate change issue, which is actually the root cause. Different from *Republika* (2025) and *Metro TV* (2025), which are more general, both *Mongabay* (2024) and *Deutsche Welle* (2025) are media that focus on environmental issues. Hence, their coverage departs from the discussion of climate change as the core problem that should be considered in the very first place before highlighting the struggle of early marriage “victims”. Through its analysis, this article critiques how nature conservation-oriented media, such as *Mongabay* (2024) and *Deutsche Welle* (2025), frame women and girls as singular victims of ecological collapse, while failing to interrogate the deeper patriarchal structures that have reproduced this practice across generations. The article challenges media narratives that naturalize gendered suffering instead of scrutinizing the power relations that make such suffering appear inevitable.

RESULTS AND DISCUSSIONS

The sound of Arifudin's boat started to break the small waves in the North Jakarta water as documented by *Mongabay* (2024). He was well-prepared with his machines and simple diving equipment, plus a long-sleeved shirt, pants, and shoes on. That is very much what farmers in most Indonesian villages would wear when they are foraging for grass for their livestock. He has been working as a green mussel fisher since 1998, when he first moved to Jakarta and started his fishing job using nets.

During the interview with *Mongabay* (2024), he was captured climbing onto his small boat, bringing a small net of green mussels, only around 350 grams, from underwater as his first catch of the day. He poured them onto the floor of his boat, along with debris that he later needed to clean. He mentioned how hard it is today to find green mussels in a considerable amount. His steadfastness came across as a mixture of determination and desperation, as shown in his words.

Ind : “*Kita kumpulin sedikit-sedikit. Ga ada lagi, cari lagi.*” (Arifudin)

Eng : “We collect our catches constantly in very small amounts. If we cannot find any, we keep searching.” (Arifudin)

This is the condition that traps fishers like him amidst the uncertainty. When the catches are very

little, there is nothing else they can or should do other than keep fishing even if they have to come back home empty-handed. They also rely on compressor diving equipment that can harm their safety due to carbon monoxide contamination. He is one among many fishers who is seeking a livelihood while courting death to fulfill very humble, basic daily necessities.

As the noise of the waves was lapping and sometimes crashing, he sat for a moment on his boat while smoking a cigar. A very common thing for older adults in Indonesia throughout all economic layers. He stood up, then sat on his boat, with grit clearly visible on his face, although his diving tube mask and gloves covered it. His complexion depicted a balance between certainty and numbness of the unavoidable undesirable choice. As shown in Figure 1, he gazed far out over the water among the breezy sea on his small boat, and he went down again to the water.

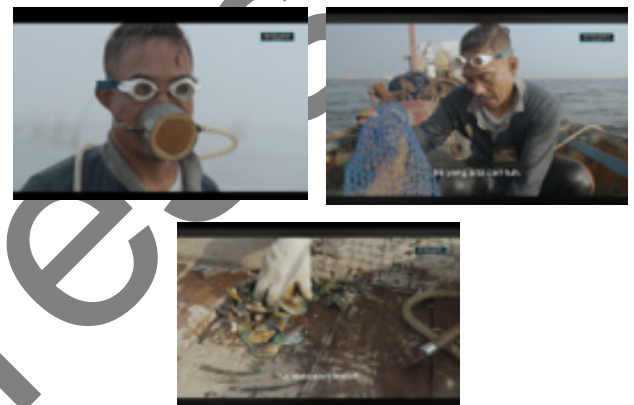


Figure 1 North Jakarta Green Mussel Fisher Portrayed by *Mongabay* (2024)

Mongabay's interview (2024) continued with him admitting that the catches are getting less and less. Despite the heartbreaking situation, it is also interesting to note that Arifudin even knows that climate change is something to blame for the adversity. He and his coastal communities have to go through this, marking how urgent this issue should be handled immediately.

Ind : “[*Dulu*] belum banyak pabrik, kalau sekarang udah banyak pabrik juga, limbah udah banyak juga.Tambah tahun tambah sulit. Perubahan cuaca. Air semakin panas. Ikan, ibarat apa ya?, di pinggir udah ga ada.” (Arifudin)

Eng : “[In the past] we did not have many factories, now we do, with lots of waste.We find it more difficult to fish every year.The weather changes. The water is getting hotter. The fish, what can I say? No more fish on the coast.” (Arifudin)

The coastal fishers have their green mussels processed where men, hand in hand, heat green mussels in a large oil drum over a fire they built themselves.

They stir the mussels inside the drum using wooden paddles. The process is done manually, so they must constantly control the fire's temperature. There is strength behind their thin bodies. There is surely a certain skill they have learned and practiced for years, as seen in the video, where they were captured grabbing this and that with their hands to get things done efficiently. They share a hope: to make ends meet for their families. A clearer description of how dire the situation is is depicted in a documentary published by *Deutsche Welle* (2025) interviewing one of the fishers in the area, Wakid, sitting on his boat at the pier.

Ind : “Sekarang udah ga bisa masuk ke lokasi yang dilarang. Dulu kan bebas. Ya ngaruhnya ke airnya kan putih itu. Jadi kan ikan kadang-kadang pada mabuk, pada ngambang. Biasanya kalo ga kena limbah, ikan kan di dasar laut. Ya, dulu sering sampai 1 juta Sekarang bisa mencapai 300 ah paling gede.” (Wakid)

Eng : “We cannot sail to the forbidden location. It was free in the past [to sail everywhere]. [Climate change and waste] affect the water that now becomes white. The fish are sick and floating. If the water were not polluted, the fish would stay near the seabed. In the past, I could make Rp1 million. Now, the most I could get is Rp300,000.” (Wakid)

Water pollution has been detected since the 1980s. The increasing number of manufacturing companies has made Jakarta Bay a giant landfill. Land reclamation has also been eroding the fishing grounds, causing water streams to be diverted due to sedimentation. Fishers in the coastal area also face danger every day due to the unpredictable weather conditions.

Arifudin and Wakid are two men seen as the patriarchs who are responsible for their families' lives. If they can only catch very little, how will they be able to afford their families' necessities? Additionally, considering Jakarta has been a hub for social media trends that make consumers pickier, how are they going to distribute their [small] catches in the long run? Aren't they expecting the end of the catches and the end of themselves?

In *Mongabay's* documentary (2024), a man poured green mussels into the shucking area, where several people, mostly women, were working to shuck them using a piece of bamboo in their hands. Among them was seen an older adult working as a shucker too. They were all sitting in squatting positions, and it seemed they could endure it for quite a long time. They were wearing long-sleeved shirts. Some of them covered their heads with hoodies, hats, or scarves. They picked the mussels one by one while the smoke was clearly visible in the air, indicating that they were doing it while the mussels were still hot.

A woman in a black hooded jacket and pants was joking while focusing on shucking the mussels with her head down. She was clearly ranting in her joke amidst chatting with her friends, showing her disappointment to the men. Why? Because they did not meet any expectations to be able to live decently.

Ind : “Korban lelaki. Jadinya, pada ngupas. Jadi usaha sendiri.” (One of the woman mussel shuckers)

Eng : “We are the victims of the men. We live as shuckers [after marrying them]. We have to make ends meet on our own.” (One of the woman mussel shuckers)

Another woman responded to her remark, saying that not all men were irresponsible. Even though some complaints arose, we can see that some others trust in their partners. My interpretation is not far from the traditional belief that men are always the family head/ and/or the social leaders. Amidst the chatting, another woman consoled herself and the others by saying that their main purpose should be children-oriented. As long as they are healthy and able to eat, they believe everything is fine. The chats among those women actually reflect the irreversible decision they had to make to get married at a very young age, skip their flowers of youth to take care of their husbands, and avoid being a burden to their parents. They might regret it, but they might make the same decision for their children, especially their daughters.

The issue that Arifudin and other fishers are continuously facing is the circle of death that pressures them and their families. As the pressure is taking more space in their little peace of mind, all they can see is an endless trouble that haunts them like an evil spirit that demands a sacrifice, either from them as the family heads, their wives who, in consensus, are urged to support them, and their children who are seen as an extra expense. As a result, those with less value are eventually sent away through an early marriage just to [temporarily] subside the family's economic burden. This practice is passed down.

Ranti is one among those mussel shuckers. She got married to her husband when she was 13 years old. All she understood was that she needed to get married at such a young age to reduce her family's burden. About this, marriage before the age of 18 was indeed historically common in many underprivileged Indonesian communities, but it was rarely the result of free individual choice. Rather, it emerged from intergenerational patterns of economic coercion and social conditioning shaped by chronic poverty. In the past, low-income households often had many children, sometimes five or more, which intensified financial pressures and normalized the practice of marrying daughters early as a way to reduce economic burden. Under these conditions, girls were not viewed as dependents who needed prolonged parental care, but as individuals who should quickly assume

adult responsibilities, including securing their own livelihood through a husband. This long-standing logic of “necessity,” passed down through generations, functioned as a form of structural indoctrination: poverty shaped belief, belief justified practice, and practice reproduced unequal gender expectations. Early marriage was therefore not a cultural preference but a survival strategy embedded in conditions of scarcity.

Compared to the other mussel shuckers captured in the frame, Ranti was seen with make-up, a pair of golden earrings, and tidier clothes. It was unclear whether she had that kind of appearance every day or only that day when she was interviewed by *Mongabay* (2024). However, one thing to highlight is that women have their things to do that should be included as their primary needs instead of secondary needs despite their undesirable economic situation. This is similar to men who need to smoke cigars during their leisure time just because they need it.



Figure 2 Daughters and Mother in North Jakarta Fisher Community who Got Married Early Portrayed by *Mongabay* (2024)

Ranti, captured in Figure 2, told *Mongabay* (2024) that she had two daughters, Siti and Azizah, and one son, Farel. Her family married off their daughters before they even turned 18. They have each had a baby now. To *Mongabay's* interviewer (2024), she bluntly [or innocently] said something that no mothers should ever do, but this is the result of her constructive [wrong] understanding rooted in her experience with her parents.

Ind : “Si Siti emang waktu itu dia sakit. Disuruh nikah aja gitu. Biar ada yang ngasih makan gitu. Ada yang ngasih uang sehari-harinya gitu. Jadi dia ga bebanin orang tua.” (Ranti)

Eng : “Siti was sick at that time. We got her to marry someone so her husband would take care of her, feed her, and provide for her. So, she would no longer become our burden.” (Ranti)

These remarks came from a desperate mother who had no solution to the issues she and her family were facing. Perhaps, instead of casting Siti out, she still thought Siti might end up dying if she kept staying with them, given their very limited financial capability. This depicts two situations: “there is no choice at all” and “it is not time to pray”. However, Ranti does not deserve to be the one to blame. She is the product of the previous wrong understanding about [early] marriage that she holds as a value of knowledge that she eventually passes on to her daughters. Her husband might have had a similar understanding too, which eventually led him to decide the same.

Siti was captured playing with her chubby baby. She sang *tepuk ame-ame* while smiling, looking at her baby. Her husband works as a teacher who earns only Rp100,000 per day. Therefore, she has to help him support the family. She works as a mussel shucker, earning Rp20,000, which she claims is only enough to buy snacks for her baby. Even though that is the amount she can get, she will keep doing that because she believes she has to do something. Although that “something” means “nothing” compared to her family’s actual needs.

She brings her baby to work, where she sometimes also puts her baby on a swing made of a baby wrap. Her baby was sometimes put in a medium pail with a pillow to play inside. Yes, she uses a pail, not a baby crib, because where she works only has pails. This should become a reality that women in the coastal area have to understand: they bear more responsibilities when they decide to marry off their daughters instead of encouraging them to school, instead of telling them that they can stand on their feet, instead of whispering in their ears that they must be able to live a better life than their parents.

Siti told *Mongabay* (2024) her beginning story of how she ended up married at a very young age. It was only a few months after she finished primary school that her parents got her to marry someone. She said, “*Disuruh mama*” (“My mom told me [to get married]”), reflecting the vulnerability of women as the victims of underage marriage and as agents of the sick tradition.

Ind : “*Deg-degan sebenarnya. Ga niat menikah tapi tiba-tiba disuruh menikah karena saya sakit-sakitan terus. Campur aduk, sih. Siap ga siap harus siap.*” (Siti)

Eng : “I was actually nervous. I had no plan to get married, but they wanted me to do so because I was ill. I felt a mess. Ready or not, I got to be ready.” (Siti)

This is where the voice is really silenced directly by the elders, indirectly by poverty, and invisibly by climate change. If we put ourselves in Siti's shoes, the first thing we may feel is abandoned and unwanted. She listened more and spoke less. She was taught that she had no position to bargain with what her parents [and their traditions] wished her to do. She was not

only nervous, but she was also threatened by fear and pressured by her ailment. She was forced. Yes, this is exactly what she felt. She was just a primary schooler who had yet to learn about adulthood comprehensively. She had no idea what it would be like as an adult. It is not a matter of getting older by the measurement of age but the increasingly higher social responsibility that a girl has to practice, as she transitions into a woman, towards her family and her environment. She is caged by the normalized view that women will only end up serving their husbands in bed, doing house chores, and cooking in the kitchen. She is one among many who conclude that women will only leech for food from men and be protected by men, while they do not mind if they have to do extra work to fulfill their families' daily needs. With very slim practical education, Siti and other women in similar situations will only live their lives doing low-earning jobs, and who knows if they have to starve themselves to ensure their children eat enough for a day.

In her reflection on her past early marriage life and the current situation that she is fighting for, it felt in her humble and innocent voice as if she was saying that this is the life she has to embrace. She admitted it is dire, but she consoled herself that there could be a way out; she could never describe how it would be, but just like a magic or miracle that none could ever foresee, unless she would not make the same mistake to her kids in the future as her parents did to her. She made her point, but at the same time it felt like she needed an affirmation and support from someone through her eyes.

Ind : *"Mungkin rejekinya anak mah ada aja, ya kan?" (Siti)*

Eng : "The child may bring a good fate, right?" (Siti)

Another point of view is drawn from Hikmah through *Deutsche Welle's* documentary (2025). In a very humble wooden white house full of soot and dirt on the wall, Hikmah was enjoying lunch with her husband and her children, Saiman, Ilham, and Sahira. Saiman is the eldest child who helps his father fish every day. The space seen in the documentary is the same space where her children are studying and the same place where she was interviewed. No table or chair was seen. Everyone was sitting on a carpet. A few bags were on the wall, including a big plastic bag. There was some stuff disorganized in the space.

Ind : *"Seandainya bapak dapat duit, duit buat beli beras sekian. Pas saya udah nikah, jadinya ngurangin gitu." (Hikmah)*

Eng : "My dad had to allocate some amount of money just to afford rice. Once I got married, they could suppress their food expenses." (Hikmah)

This perception posits families to consider that

an unmarried daughter is an extra mouth to feed, so they trade her in for a plate of dish they can save for the existing family members. The decision for the girl-child marriage is exercised as a collective decision that the families have to take to save their household, and maybe the girl child herself (Asare & Forkuor, 2024). From a behavioral ecology perspective, both daughters and parents in relatively disadvantaged households may opt for early marriage as an adaptive "best-of-a-bad-job" strategy, in which marrying off girls under 18 is viewed as the most fitness-enhancing option when other viable alternatives are scarce or often not available.

Hikmah represents the voice of young women who were forced to surrender to circumstance. Her words reveal the quiet logic of survival in a struggling household, where marriage becomes a way to lessen the family's burden rather than a choice of love or readiness. She eventually has to work more hours selling food late every afternoon to survive in the economy. This condition is commonly ignored by the traditional view of women that blindly keeps positioning women as dependents. Through her story, we see how economic precarity and environmental decline intertwine, pushing families to make decisions that perpetuate cycles of vulnerability.

Girls who grow up in a social environment like Siti and Hikmah's will never mind if their lives must be controlled by their elders in a patriarchal society. They need to listen and should not talk back under the disguise of "for the sake of their good life". Once they have husbands, they should also hear some doctrines that women will only have a decent place in Heaven if they obey their husbands. That is the starter of the issue that coastal women have many children. It has been hard to get a pack of rice that can feed them throughout the whole week, not to mention buying contraceptives. However, they actually save little, only to face much bigger trouble. The issue may also extend to whether they have reproductive problems due to low hygiene in daily life and sexual activities. Now, the previous evil spirit has called the other seven deadly spirits. It is only that none finds a way to exorcise them as soon as possible.

Let us divert our point of view to Siti's younger sister, Azizah, who got married when she was 17 years old. Her marriage background was different from Siti's. While Siti was forced by her parents, her sister willingly got married at that time. This is the biggest irony: a young girl like her cannot question anything before making a decision. She can only see the bigger picture and concludes that something is good just because it looks good. In this case, social norms and poverty emerge as key drivers that contribute to girls' limited agency and restricted opportunities to access information about marriage.

Azizah can be a reflection of some girls who expressed a desire to marry early because poverty compels them to assume adult responsibilities and self-support by around age 15 to 16, irrespective of their parents' or guardians' wishes. While we normally

assume that early marriage interrupts girls' education, a study reveals that educational opportunities are frequently denied to them even before marriage occurs. It is not the early marriage itself that stops their schooling; instead, poverty and social expectations shape families' decisions that lead girls into early marriage long before formal union occurs (Wahyuningsih et al., 2025).

In a frame of the video by *Mongabay* (2024), she was captured walking in a small lane during the daytime in her neighborhood, carrying a small pail in her right hand and holding her child with a baby wrap on the left side of her body. The area seemed lively with *dangdut* music heard in the documentary. She smiled while passing by people around, radiating that her life is just another normal life.

Ind : “*Nikah muda keinginan sendiri, sih. Soalnya ngeliat temen-temen pada nikah muda keliatannya tuh enak gitu, seru, ya senang aja gitu ngeliatnya. Jadi, pengen nikah muda. Nikah muda juga biar ngurang-ngurain beban orang tua. Taunya, nikah muda bukan solusi yang pas gitu. Malah nambah-nambahin masalah.*” (Azizah)

Eng : “I got married so young because I wanted it. I saw my friends who were married so early looking happy and fun. I am happy for them. That is why I wanted to be like them. I also wished that it would reduce my parents' burden. I found out later that getting married so early is not a solution. It adds to more problems.” (Azizah)

The word “burden” might be the most vivid thing for Ranti and her two daughters. Not all people can describe what a burden actually is concretely. However, they can, because they internalize their thoughts and see themselves as the burden itself, shaped by their environmental situations. They no longer see themselves as women but as burdens. When they have such a thought, they will do anything to “atone” for their presence, including doing extra [low-paying] jobs, not because they sincerely want it, but because they want to be useful.

An example is from Hikmah, as documented by *Deutsche Welle* (2025) in Figure 3. As a result of her early marriage, she could not totally rely on her husband. Instead of wishing for a slow-paced life and being worry-free from financial issues, Hikmah has to perform a gendered role as a mother who supports her family's daily needs, takes care of her ailing mother, and sells food in the late afternoon to make some more earnings.

Eventually, girls like Azizah have to take on some responsibilities to sustain their households. Azizah mentioned that her husband, who works as a fisher, could only bring home Rp200,000 to Rp300,000 per week. While the price of rice is around Rp15,000 per kilo, the earnings can only sustain less than ten days if they have to buy baby formula and

eat only twice a day with any available simple side dish. If they need to buy cigars and make-up, allocate a few budgets for transport, and prepare household maintenance, they have to rethink. What if someone in their family is sick? Or, what if their kid is ready for schooling? They would become extremely vulnerable to being scouted by illegal fintechns, online gambling, loansharks, and, in the worst scenarios, malnutrition, domestic violence, neglect, and human trafficking.



Figure 3 A Woman in North Jakarta Coastal Community Supporting Family Needs Portrayed by *Deutsche Welle* (2025)

The evidence from *Mongabay* (2024) and *Deutsche Welle* (2025) paints a harrowing picture that depicts Jakarta's coastal women on the frontlines of a crisis that is simultaneously environmental, social, and deeply gendered. There are lives under siege, with girls forced into early marriage as a perceived “solution” to family hardship. Women bear the heaviest burden, their bodies and choices sacrificed in cycles of poverty and systemic neglect (Wahyuni, 2022). Women are “sacrificed” in the sense that their families, under long-standing economic pressure, come to view their presence as an added burden to feed, leading girls to relinquish their childhood and adolescence prematurely so they can assume adult roles as wives, and often mothers, long before they are emotionally, socially, or educationally prepared. What emerges is not an environmental problem alone, but a humanitarian and justice crisis, where climate degradation collides with patriarchal power to strip agency from the most vulnerable. Early marriage is not caused solely by climate change. However, by poverty and intergenerational patriarchal norms, climate stress intensifies these pre-existing hardships that eventually prompt families to marry off daughters earlier as a perceived survival strategy. In this way, climate degradation amplifies gendered inequalities rather than creating them.

Without empathy, we will adopt regular mindsets that judge them as irrational. “Why do they keep marrying off their daughters at a young age while they know that it will never solve their problem?” and

“Those daughters have been old enough just to be able to say “no”!” might appear as the most common harsh remarks that people will hastily use to criticize people of the coastal communities who do early marriage as a common practice amidst the dire economic escape. The presence of media like *Mongabay* (2024) and *Deutsche Welle* (2025), with their extensive coverage related to environmental issues, actually brings enlightenment for coastal communities and society about how power dominance is not the only long-standing dominance. There is a great cause that leads people with less power to live more desperately in a cycle of the same mistake from one generation to the next generation.

The regional government, which has authority under local autonomy, should bear the greatest responsibility for the adversity that the North Jakarta coastal community is going through. The past two decades have challenged the sustainability of their livelihoods and put them in a cycle of poverty. This cycle circles their area but is away from the central area where businesses thrive. Manufacturing operations produce greenhouse gases from combustion, while policies related to carbon credits are not yet widely implemented across the region, causing higher pollution in the atmosphere and water that affects the amount of catches. In a patriarchal society, men who are seen as the breadwinners will feel the adversity first. As the heads of the family, they and their wives will feel incapable of affording their needs. So, that is how the law of nature works. The one seen as the weakest will be a hindrance. Eventually, they have to cut the budgets of daily expenses by reducing the number of mouths to feed. Coastal children are prone to experience human rights violations when their parents resort to halting their education and sending them for marriage. Without adequate knowledge of survival, they give birth to more children and repeat the cycle.

Fighting against climate change and environmental destruction surely will take forever, as the action requires the collaboration of many stakeholders. However, the local government actually can address the aftermath of underage marriage in coastal regions by providing social net support.

To help them survive, and thankfully make their lives more decent too, the government is responsible for offering long-term social protection, but not in the form of cash subsidies that often fall into political campaigns. We are dealing with a vicious devil circle that the splash of holy water itself will not be enough. We need a continuous exorcism to cut the chain of the problem. Ranti and her two daughters, as well as Hikmah, need reassurance of livelihood. Providing permanent jobs for vulnerable people, especially fishers in coastal areas, can offer greater resilience to the impacts of climate change by reducing reliance on climate-sensitive livelihoods and enabling more sustainable adaptation to changing environmental conditions. Complementary programs such as mandatory education for those without diplomas and

the establishment of local job hubs can further enhance their employability, ensuring long-term social and economic inclusion in the face of climate challenges.

Ind : “*Harapan saya sih, ya. Mantu punya kerjaan tetep gitu. Anak pada pengen nikah muda, masih ngerepotin orang tua juga, ya kan. Jadi, anak belum ada yang bisa membanggain orang tua. Orang tua aja masih repot juga, kan. Belum mikirin kontrakan, mikirin air, belum mikirin lampu. Saya aja dua bulan kontrakan belum bayar.*” (Ranti)

Eng : “I hope my son-in-law will have a permanent job. My daughters wished to get married early, but they still rely on us. None of them has been able to make us proud. We are still struggling just thinking about our housing, water, lamps (electricity). I have not even paid my rent for two months.” (Ranti)

Ind : “*Sebenarnya mau ngelanjutin sekolah, cuma anaknya ga ada yang mau ngurusin. Sedih, sih. Pengen ngebantu gitu. Pengen ngejayain orang tua juga biar bener-bener ga sesusah ini gitu. Pengen ngebantu, nyari kerja gitu. Zaman sekarang kan harus ada ijazah.*” (Siti)

Eng : “I actually want to continue schooling, but nobody can take care of my kid. I am sad. I want to help. I want to make my parents happy and ease their burdens. I want to help; I want to work, but I do not have a diploma.” (Siti)

At the same time, the government must strengthen the regulation of carbon credits and enforce stricter measures to minimize the environmental impacts of megaprojects and manufacturing activities. Such actions are crucial to ensure that economic growth aligns with climate resilience and environmental sustainability.

Nature conservation media must take a stronger role in educating society about how severely climate change can affect power relations and social balance. Their coverage should include both women’s and men’s perspectives to give a more complete and fairer picture. For example, *Mongabay* (2024) and *Deutsche Welle* (2025) highlight men as fishers who struggle with declining catches but have not yet examined their roles in issues like underage marriage. *Mongabay* (2024) specifically portrays Ranti as a mother who encourages her daughter to marry early, which may reveal women’s struggles, while *Deutsche Welle* (2025) presents a one-sided story from Hikmah who accepts her fate and surrenders to it. If not carefully framed, it risks reinforcing a distorted view of women instead of exposing the deeper social pressures caused by climate and economic insecurity.

What if the government ignores this urge?

Ind : “*Cita-cita Ilham ingin jadi polisi. Sahira mau jadi dokter. Yang di luar sana biar ajalah bisa nikah muda. Tapi, kalau saya pengen ngebahagiain anak-anak saya. Saya mau berjuang biar anak saya itu sekolah tinggi dulu.*” (Hikmah)

Eng : “Ilham wants to become a police officer, Sahira a doctor. I do not care about those people who (proudly) get married at a young age. I just want to make my children happy. I want to fight for their education.” (Hikmah)

We know that Hikmah has three children. However, did she forget to mention Saiman, her first son, in her hopes and prayers about a better future for her two younger children? I hope he will never become the next Cakra.

Men are disproportionately affected by job losses in climate-sensitive sectors, for instance in fisheries, agriculture, tourism, and forestry. As a result, they have significant pressures related to their traditional roles as primary earners, especially in agriculture and fisheries, which are highly vulnerable to climate change. When climate change deepens existing social, economic, and cultural inequalities, it reveals distinct gendered experiences across communities. Women often shoulder heavier burdens through responsibilities like collecting water, gathering fuel, and producing food. However, they have limited access to land, financial resources, and decision-making power, while men face job losses in climate-sensitive sectors that reshape traditional family roles (Adhikari & Ghimire, 2025).

Men's loss of livelihood and the family's resort to child marriage both reflect stress structured by ecological and economic forces, not just personal failure. Poverty, environmental degradation, and gender norms act as burdens carried by families and are embodied differently across genders. The embodiment of stress carried collectively, later termed “cargas” by Megan Raschig, by women in North Jakarta fisher families affected by early marriage, reflects how structural inequalities and ecological pressures shape girls' life trajectories (Raschig, 2023).

These conditions mark an economic coping mechanism, in which the decision for the girl's marriage is exercised as a collective decision that is often male-driven, which pushes families to save their household and maybe the girl child herself amidst the scarcity of reliable livelihood resources.

A relevant study of farming communities in Northern Ghana found that households facing climate change adopt a range of coping mechanisms to navigate environmental and social shocks (Asare & Forkuor, 2024). These strategies, supported by the government, included providing storage facilities for harvested crops, participating in training programs on composting, and learning alternative livelihoods

such as soap making or shea processing. However, in some cases, arranging early marriage for daughters is considered a means to reduce household financial burdens and, at the same time, to protect the girls themselves by believing that early marriage could bring resources to families. The study illustrates how climate stress interacts with economic vulnerability, compelling families to make difficult decisions that have profound social and gendered consequences. While climate-induced poverty is well documented, less is known about how girl-child marriage functions as a behavioral adaptation strategy in response to these pressures. In Northern Ghana, qualitative interviews and focus group discussions reveal that families often marry off their young daughters as a form of social protection, as families see the unmarried girls as additional mouths to feed and a potential liability. This practice is framed not around the individual well-being of the girl but around safeguarding the family's survival, reputation, and stability in the face of climate change. Such coping mechanisms highlight the ways communities prioritize collective resilience over individual agency, using marriage as a strategy to buffer economic and environmental risks (Asare & Forkuor, 2024).

These behaviors reflect adaptive responses to structural inequalities, revealing how gendered bodies and family units are sites where social, economic, and environmental pressures intersect. Those cases highlight that coping mechanisms are shaped by broader systemic forces rather than purely personal choice, illustrating the ways communities mobilize collective strategies under persistent stress. Underage marriage in North Jakarta's coastal communities has long been a common survival strategy against poverty, a practice that modernization, expanded access to education, and social aid programs should have significantly reduced. However, ecological pressures, such as declining fisheries and environmental degradation, exacerbate economic vulnerability and force families to prioritize immediate survival over long-term investments like girls' education. Nature-based conservation media, such as *Mongabay* (2024) and *Deutsche Welle* (2025), often frame this issue simply as a consequence of climate change, overlooking the socio-economic context and portraying underage marriage as a direct outcome of ecological collapse rather than a complex coping strategy rooted in enduring poverty and vulnerability.

In local understanding, early marriage revolves around social norms and poverty that emerge as key drivers that contribute to girls' limited agency and restricted opportunities to access information about marriage. In Jakarta's coastal communities, early marriage is shaped by poverty and economic pressures that limit girls' choices and access to education. This is not a particular issue in Indonesia, but also happens in less developed countries, including Bangladesh, Malawi, and Niger, especially when families face economic hardships, such as reliance on small-scale farming, low household income, and limited access to

social support, that encourage marrying off daughters to reduce financial burdens (Psaki et al., 2021). In Jakarta, declining fisheries, rising living costs, and scarce alternative livelihoods intensify these pressures, forcing families to prioritize immediate survival over long-term investments in girls' futures. Across these regions, economic vulnerability interacts with social expectations to influence the timing of marriage and household decision-making. By framing child marriage as a behavioral response embedded in social and economic realities, local understandings in rural communities place early marriage as a practical solution to poverty or family vulnerability. Social norms and economic constraints do not act in isolation but intersect, creating conditions where families perceive marriage as a way to secure protection, stability, or opportunity for their daughters (Psaki et al., 2021). Interests and coercive actions can also become the driving force sustained by limited support for parent-offspring conflict (Baraka et al., 2022), for which for girls, both recognizing the goal of delaying marriage and taking steps to achieve it can be difficult, particularly in contexts where there is limited awareness of the consequences of child marriage.

Marriage under 18 remains common for girls and women in many low-income nations, with deep intergenerational roots where poverty is a central driver and social norms or faith-based beliefs can further legitimize early unions (Pourtaheri et al., 2023). A similar pattern may be observed in North Jakarta's fishing communities, where certain religious interpretations could support early marriage. Financial incentives, such as assets provided by the groom's family to the bride's family, can also reinforce the practice. In these coastal communities, underage marriage is thus likely driven not only by economic hardship but also by faith-informed norms and transactional pressures, rather than by individual choice alone. A further study is needed to clarify this.

In contexts of extreme poverty, families and girls may face very few viable alternatives that shape decisions about early marriage as a pragmatic response to survival pressures. Similar to Azizah featured in *Mongabay* (2024) who admitted that she was willing to get married so early because she thought she would be happy and able to reduce her family economic burden, in Dar es Salaam, some girls reported wanting to marry early because poverty forces them to take on adult responsibilities around ages 15-16 years old, even if their parents or guardians had different wishes. Educational opportunities are often inaccessible to girls before marriage, suggesting that early marriage is as much a consequence of limited alternatives as a cause of curtailed schooling. Addressing early marriage effectively, therefore, requires shifting focus from legislation alone to poverty alleviation, expanding employment opportunities for women, promoting gender equality in informal sectors, and reducing the costs of secondary education to create real choices for adolescents (Corno & Voena, 2023; Fitria et al., 2024; Rains, 2025). Drawing on Sara Ahmed's

notion of the feminist killjoy (Ahmed, 2017), efforts to prevent early marriage also involve supporting girls, mothers, or community advocates who disrupt the harmonious social order that normalizes underage unions. In contexts where challenging early marriage is framed as disrespectful or disruptive, the killjoy figure reveals how resistance carries emotional and social risk. Integrating Ahmed's perspective helps illuminate that meaningful change requires not only structural reforms but also the protection and amplification of those who dare to interrupt patriarchal expectations in their everyday lives.

In the context of media narratives covering the issue, *Mongabay* is a U.S.-based non-profit environmental news platform founded in 1999, focused on reporting tropical forests, biodiversity, and conservation issues globally. *Deutsche Welle* is Germany's international public broadcaster, funded by the federal government, providing news in multiple languages with a focus on global events and climate coverage. Both outlets report on environmental issues, but *Mongabay* emphasizes ecological advocacy and marginalized communities, while *Deutsche Welle* often frames stories within global policy and international perspectives.

Mongabay and *Deutsche Welle* often connect climate change to human social outcomes such as poverty and early marriage. However, the way they construct these narratives can shape what is made visible and what remains unseen. *Mongabay*, with its environmental advocacy and emphasis on marginalized communities, tends to highlight the impacts of ecological degradation on livelihoods, but may simplify local agency by framing families primarily as victims of external pressures. *Deutsche Welle*, as a state-funded international broadcaster, often emphasizes policy and global climate discourse. When it shifts to reporting on social issues, it risks portraying communities in the Global South as passive sufferers of climate change rather than as actors navigating complex socio-economic and cultural realities. The media has misrepresented the connection between climate change and underage marriage by focusing solely on young women as victims and framing them as burdens on their families. This narrative overlooks the intergenerational roots of the practice, including enduring social norms, religious beliefs, and parental experiences of early marriage that continue to shape family decisions today. By portraying communities as passive sufferers, the media fail to recognize how families actively navigate complex socio-economic and cultural realities in response to environmental and economic pressures.

Both outlets make strategic narrative shifts, from environmental phenomena to human consequences, to engage audiences. Nevertheless, in doing so, they may obscure the local norms, gendered decision-making, and coping strategies that underlie practices like early marriage. This framing can unintentionally reinforce stereotypes, presenting early marriage solely as a harmful consequence of climate stress rather than as

a situated behavioral strategy employed by families to endure structural pressures.

Mongabay and *Deutsche Welle* are both widely cited outlets covering environmental issues, yet each presents a distinct editorial perspective that shapes how climate change and its social consequences are framed. *Mongabay* presents high factual reporting but an advocacy-driven voice that often uses loaded language and emotional appeals to emphasize suffering and crisis. Similarly, *Deutsche Welle* also reports strong factual accuracy, yet its delivery frequently employs emotive language that reflects a liberal orientation, particularly when highlighting social vulnerabilities linked to environmental degradation. While both outlets reliably present factual information, their framing choices can simplify complex social realities, portraying families and children as powerless victims and foregrounding external drivers such as climate change while underrepresenting local agency, cultural norms, and coping strategies. This combination of credibility and selective framing underscores the need for critical engagement with media narratives, as they influence how audiences perceive the causes, consequences, and possible interventions for issues like poverty and early marriage in environmentally stressed communities.

While *Deutsche Welle* (2025) and *Mongabay* (2024) highlight the climate, poverty, and early marriage linkage, their portrayals may over-simplify or privilege certain drivers (climate change, external shocks) and under-play or render invisible local gendered norms, agency, and cultural logics. By focusing primarily on climate as the driver, these outlets obscure the complex interplay of economic hardship, faith-based norms, and intergenerational practices that shape underage marriage. A study shows that media often include portrayals of marginalized communities, especially women, frequently depicting them as vulnerable passive victims and emphasizing their helplessness rather than highlighting their agency or strategies for coping, resisting, or actively shaping their lives. Such portrayals can reinforce stereotypes of dependency and marginalization (Rothenberger & Schmitt, 2024).

In Jakarta's coastal communities, underage marriage is not simply a response to ecological shocks but a coping strategy embedded in socio-economic realities, cultural expectations, and transactional practices, which media narratives often fail to capture. This matters because the narrative the media constructs will influence how readers, policy-makers, and practitioners understand early marriage, not as a multifaceted social practice embedded in gender, kinship, and economy, but as a downstream outcome of the climate crisis. Those framings risk shifting responsibility away from gendered power relations, into the domain of "nature vs humanity".

CONCLUSIONS

Finally, the framing of climate change primarily as a natural phenomenon often obscures the layered social and economic pressures on underprivileged families. These pressures drive gendered decisions such as marrying off young girls to reduce household burdens. Media coverage amplifies this framing by portraying girls from underprivileged families as powerless victims, while downplaying long-standing drivers of early marriage, including chronic poverty that leads to limited livelihood options and intergenerational decision-making that puts girls at a disadvantage.

The combination of environmental determinism and victim-centered narratives risks simplifying complex societal issues and reinforces gendered stereotypes, diverting attention from the underlying causes. To address these challenges, governments should implement policies that both alleviate structural inequities and reshape public narratives by investing in education and economic opportunities for girls and women, promoting gender equity in decision-making, and supporting social protection programs that empower families to make choices rather than reacting to survival pressures. At the same time, policy-makers and media institutions should collaborate to produce reporting that highlights local agency, family strategies, and the social realities behind early marriage, ensuring that the interventions respond not only to poverty and climate stress but also to how knowledge, representation, and perception shape action and public understanding.

Future research could examine a wider range of media platforms and engage directly with coastal communities to better understand how media portrayals shape perceptions of agency, vulnerability, and adaptation. Such work would further illuminate how climate discourse intersects with gender representation and development policy to help move beyond simplified narratives toward more context-sensitive understandings of early marriage.

ACKNOWLEDGEMENT

I am deeply grateful to Professor Lisa Jahn from Barnard College for her invaluable guidance, particularly her advice on applying perspectives from her Feminist Ethnography class under American Studies, which greatly shaped the structure and analysis of this article. Her expansive and critical insights have been instrumental in strengthening the clarity and objectives of this work, while also fostering the development of young scholars committed to producing responsible and rigorous academic scholarship.

This research was conducted as part of the American Studies coursework undertaken under the FLTA 2025/2026 program, endorsed by Fulbright and administered through the Institute of International Education in New York, United States.

Author Contributions: Conceived and designed the analysis, P. M.; Collected the data, P. M.; Contributed data or analysis tools, P. M.; Performed the analysis, P. M.; Wrote the paper, P. M.

Data Availability Statement: Data available within the article or its supplementary materials. The authors confirm that the data supporting the findings of this study are available within the article [and/or] its supplementary materials.

REFERENCES

- Adhikari, A., & Ghimire, S. (2025). Gendered Dimensions of Climate Change Impacts: Challenges and Adaptive Strategies. *Turkish Journal of Agriculture - Food Science and Technology*, 13(5), 1354–1367. <https://doi.org/10.24925/turjaf.v13i5.1354-1367.7481>
- Ahmed, S. (2017). *Living a Feminist Life*. Duke University Press.
- Akbar, H. I., Sapanli, K., Kusumastanto, T., Damar, A., Ambarwulan, W., & Rosalia, A. A. (2024). The role of water conditions in Jakarta Bay on the sustainability of capture fisheries production. *AACL Bioflux*, 17(6), 2765–2774.
- Ardinata, R., & Manurung, W. M. (2025). Disaster from water pollution in Indonesia: Unsustainable human interaction with the environment and its social impacts. *ASEAN Natural Disaster Mitigation and Education Journal*, 2(2), 179–194. <https://doi.org/10.61511/andmej.v2i2.2025.1478>
- Asare, L. A., & Forkuor, J. B. (2024). The social consequences of climate change: a qualitative analysis of early girl child marriage as an informal adaptation strategy among rural communities in Northern Ghana. *Cogent Social Sciences*, 10(1), 1–17. <https://doi.org/10.1080/23311886.2024.2319703>
- Baraka, J., Lawson, D. W., Schaffnit, S. B., Wamoyi, J., & Urassa, M. (2022). Why marry early? Parental influence, agency and gendered conflict in Tanzanian marriages. *Evolutionary Human Sciences*, 4, 1–19. <https://doi.org/10.1017/ehs.2022.46>
- Corno, L., & Voena, A. (2023). Child marriage as informal insurance: Empirical evidence and policy simulations. *Journal of Development Economics*, 162, 1–25. <https://doi.org/10.1016/j.jdeveco.2023.103047>
- Deutsche Welle Indonesia. (2025, April 29). *Mengapa Pernikahan Anak Masih Marak Terjadi di Pesisir Jakarta?*. <https://www.youtube.com/watch?v=gGldUvhb7w>
- Dwirahmadi, F., Barnes, P., Wibowo, A., Amri, A., & Chu, C. (2023). Linking Disaster Risk Reduction and Climate Change Adaptation through Collaborative Governance: Experience from Urban Flooding in Jakarta. *Geosciences (Switzerland)*, 13(11), 353. <https://doi.org/10.3390/geosciences13110353>
- Fitria, M., Laksono, A. D., Syahri, I. M., Wulandari, R. D., Matahari, R., & Astuti, Y. (2024). Education role in early marriage prevention: evidence from Indonesia's rural areas. *BMC Public Health*, 24(1), 1–9. <https://doi.org/10.1186/s12889-024-20775-4>
- Metro TV. (2025, July 5). *Telusur Kasus: Mengapa Pernikahan Dini Masih Terjadi di Indonesia?*. <https://www.youtube.com/watch?v=vWRjaZKDZuk>
- Mongabay Indonesia. (2024, October 30). *Mengapa Pernikahan Anak Masih Marak Terjadi di Pesisir Jakarta?*. <https://www.youtube.com/watch?v=twbiCKgtbIM&t=218s>
- Nabila, R., Roswiyani, R., & Satyadi, H. (2022). A literature review of factors influencing early marriage decisions in Indonesia. *Proceedings of the 3rd Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2021)*, 655, 1392–1402. <https://doi.org/10.2991/assehr.k.220404.223>
- National Geographic Indonesia. (2024, December 3). *Pernikahan Anak-Anak di Pesisir Jakarta: Siklus Kemiskinan yang Tak Berujung*. <https://nationalgeographic.grid.id/read/134188988/pernikahan-anak-anak-di-pesisir-jakarta-siklus-kemiskinan-yang-tak-berujung?page=all>
- Palmberger, M. (2025). The Digital Diary: A Mobile, Multimodal, and Participatory Method and Part of Digital Ethnography. *International Journal of Qualitative Methods*, 24. <https://doi.org/10.1177/16094069251329262>
- Pourtaheri, A., Mahdizadeh, M., Tehrani, H., Jamali, J., & Peyman, N. (2024). Socio-ecological factors of girl child marriage: a meta-synthesis of qualitative research. *BMC Public Health*, 24(1), 1–23. <https://doi.org/10.1186/s12889-023-17626-z>
- Pourtaheri, A., Sany, S. B. T., Aghae, M. A., Ahangari, H., & Peyman, N. (2023). Prevalence and factors associated with child marriage: a systematic review. *BMC Women's Health*, 23(1), 1–15. <https://doi.org/10.1186/s12905-023-02634-3>
- Psaki, S. R., Melnikas, A. J., Haque, E., Saul, G., Misunas, C., Patel, S. K., Ngo, T., & Amin, S. (2021). What Are the Drivers of Child Marriage? A Conceptual Framework to Guide Policies and Programs. *Journal of Adolescent Health*, 69(6), S13–S22. <https://doi.org/10.1016/j.jadohealth.2021.09.001>
- Rains, E. (2025). (When) Does Informal Labor Close Political Gender Gaps? Theory and Evidence from Urban India. *Studies in Comparative International Development*, 60(3), 478–511. <https://doi.org/10.1007/s12116-024-09451-1>
- Raschig, M. (2023). Cargas Coming down: Chronic stress, Chicana-Indigenous spiritual healing, and feminist fugitive potentiality. *Feminist Anthropology*, 4(1), 38–53. <https://doi.org/10.1002/fea2.12100>
- Republika Official. (2025, July 13). *Krisis Iklim Penyebab Tingginya Pernikahan Anak di Pesisir*. <https://www.youtube.com/watch?v=vaN9trCUDg>
- Rosmiati, E., Mustofa, S. B., & Rahfiludin, M. Z. (2022). Effect of early marriage on reproductive and sexual health. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(1), 5832–5837.
- Rothenberger, L., & Schmitt, M. (2024). Refugee women in the media—prevalence, representation and framing in international media coverage. *Journal of Ethnic and Migration Studies*, 50(16), 3913–3941. <https://doi.org/10.1080/1369183X.2024.2344520>

- Setiawan, H., Manessa, M. D. M., & Supriatna. (2024). Study on Spatio-temporal Distribution of Chlorophyll-a on Pelagic Catch Productivity in Muara Bendera, West Java, Indonesia. *Jurnal Ilmiah Perikanan Dan Kelautan*, 16(2), 349–363. <https://doi.org/10.20473/jipk.v16i2.55940>
- Surtiari, G. A. K., Dalimunthe, S. A., Sasaki, D., Maekawa, M., Yossa, N., Permana, Y. S., Afriansyah, A., Ningrum, V., Vibriyanti, D., Seftiani, S., Jibiki, Y., Hara, Y., & Nawawi. (2025). Social and Political Roots of Loss and Damage: A Study of Vulnerable Coastal Communities in Greater Jakarta. *Journal of Disaster Research*, 20(5), 710–725. <https://doi.org/10.20965/JDR.2025.P0710>
- Wahyuni, R. (2022). The inevitability of double burden fisherwomen on the North Coast of Jakarta. *Proceedings of the First Lekantara Annual Conference on Public Administration, Literature, Social Sciences, Humanities, and Education, LePALISSHE 2021*. <https://doi.org/10.4108/eai.3-8-2021.2315072>
- Wahyuningsih, S., Widati, S., Puspitasari, N., Salim, L. A., & Azkiya, M. W. (2025). Exploring adolescent girls' involvement in decision-making processes regarding child marriage: A systematic review. *Narra J*, 5(1), 1–15. <https://doi.org/10.52225/narra.v5i1.1656>
- Wannewitz, M., Ajibade, I., Mach, K. J., Magnan, A., Petzold, J., Reckien, D., Ulibarri, N., Agopian, A., Chalastani, V. I., Hawxwell, T., Huynh, L. T. M., Kirchhoff, C. J., Miller, R., Musah-Surugu, J. I., Nagle Alverio, G., Nielsen, M., Nunbogu, A. M., Pentz, B., Reimuth, A., ... Garschagen, M. (2024). Progress and gaps in climate change adaptation in coastal cities across the globe. *Nature Cities*, 1(9), 610–619. <https://doi.org/10.1038/s44284-024-00106-9>
- Yamamoto, Y. (2023). Living under ecosystem degradation: Evidence from the mangrove–fishery linkage in Indonesia. *Journal of Environmental Economics and Management*, 118. <https://doi.org/10.1016/j.jeem.2023.102788>
- Zahra, N. F., & Rahadin, P. (2025). Facing climate change and potential disaster: Lessons from Jakarta slums and the impact of modern-day individualism. *ASEAN Natural Disaster Mitigation and Education Journal*, 2(2). <https://doi.org/10.61511/andmej.v2i2.2025.1477>

In Press