

# Kuwardora sa Mandulog: Ecofeminist Perspective on Women, Quarry, and their Well-being

\*Hannah Janby Alsonado<sup>1</sup>, Maria Cecilia Ferolin<sup>2</sup>

<sup>1</sup> Behavioral Sciences Department, Central Mindanao University, Philippines

<sup>2</sup> Sociology Department, Mindanao State University – Iligan Institute of Technology, Philippines

DOI: <https://dx.doi.org/10.47772/IJRISS.2024.916SCO0030>

Received: 07 December 2025; Accepted: 14 December 2025; Published: 25 December 2025

## ABSTRACT

Quarry operation downstream of Mandulog River has become the source of livelihood of most households nearby the riverbanks. Although sand quarrying is primarily carried out by men, women also play a substantial role – directly and indirectly- in the quarry operation. From an ecofeminist view, women and the environment share a profound and intricate relationship. Women's traditional role as caretakers of family and households finds direct semblance with the natural world or Mother Earth as She nurtures plants, animals, humans and ecosystems. A qualitative approach was employed in this study to explore women's narratives on nature, their involvement with quarry operation and their personal well-being. Furthermore, it utilizes ecofeminist perspective to analyze the findings. In this study, purposive sampling technique was adopted in selecting ten (10) women quarriers to interview, that also cover a range of relevant variables (e.g., years of quarry experience, marital status, and age range), to maximize the diversity of perspectives. The findings and insights drawn from the women's perspectives revealed four interrelated dimensions of well-being uncovered: physical vulnerability, unsafe work environments, poverty and unemployment, and emotional ambivalence and resilience. For women quarriers, well-being is more than the physical health or financial state. It encompasses their emotional well-being, safety, sense of purpose, and connection to place. The research underscores the importance of government intervention that will ensure well-regulated quarry operation, implement disaster risk management, and provide targeted support programs to address the unique needs of the women quarriers.

**Keywords:** Women, Quarry, Ecofeminism, Well-being

## INTRODUCTION

Women and the environment share a profound and intricate relationship. Women's traditional role as caretakers also extends into the natural world. They nurture plants, animals, and ecosystems, instilling a feeling of responsibility and connection. This connection is rooted in historical, cultural, and biological factors. Swami (2019) have analyzed the interconnections between the status of women and the status of nature based on the central claims that women's struggle and oppression and the degradation of nature are interconnected. One way to talk about the connectedness between women and nature is to describe the parallel ways they have been treated in patriarchal society. First, the traditional role of both women and nature has been instrumental. Traditionally, women were not considered to have a life except in relation to a man, In the same manner, nature has also provided the resources to meet human basic needs and even luxuries. Second. A second parallel in the treatment of women and nature lies in the way the dominant thought has attempted.

Ecofeminist movement emerged contemporaneously in the 1970s in different countries – France, Germany, the United State, Japan, Venezuela, Sicily, Finland, and Australia. This movement made a case of reconnecting women with nature. The term 'ecofeminism' was coined by the French writer Françoise d'Eaubonne. Ecofeminist as a framework focused on the gendered nature of human society and how it is directly related to the patter of ecological consequences in the environment (Mellor, 1997). The ecofeminist scholars draw parallels between the ways in which women and nature are often marginalized, undervalued, and exploited. It offers a holistic approach to environmental issues, and emphasizes the importance of community-based

solutions, participatory decision-making, and the cultivation of women's ecological consciousness.

In her powerful book, *Staying Alive: Women, Ecology and Development* (1988), Vandana Shiva explores the deep connection between women and nature in India, especially in the context of resistance against deforestation and ecological destruction. This connection is clearly seen when Indian women stood up against the machines that is tearing down their forests. Her analysis focused on the struggles of Indian women not simply as environmental activism, but a defense of life where survival, subsistence, and cultural identity are intimately linked to the preservation of forests. These women lived experience, is dependent on forests for food, water, firewood, and medicine. Logging threatened not only the ecosystem but also the survival of their families and communities. The Chipko movement is an act of resistance that proves that when Indian women stand against logging, they are not just taking a stand for the environment. They are literally defending their homes and their children's future (Shiva & Bandyopadhyay, 2019).

For many years, quarrying has been practiced in the Philippines to support infrastructure and economic growth. Quarry operations have two (2) classifications: mountain quarrying and river quarrying. The former causes the scraping of upland topsoil and flora, as well as the degradation of the area's scenic. While the latter causes uneven riverbed depths and destroys riverbanks. Both methods of quarrying have the potential to have substantial negative environmental consequences, since they generate more soil erosion, pollution, siltation, and flooding of downstream bodies and places. In addition, quarrying activities also emit dust along their transit routes and noise pollution in quarry sites, which harms the affected population (Israel, 2001).

Quarry operations in community areas are a complex issue with both benefits and downsides. It may have been a necessary part of modern society, providing essential materials for construction. However, it is also scrutinized heavily due to the environmental concerns it brings. Similarly, Macabuac (2005) studied the impacts of aquaculture on women and their households in Pangil Bay. The study highlights how the expansion of aquaculture in coastal communities transformed traditional fishing economy and reshaped household labor dynamics and gender roles. The women who were actively engaged in small-scale fishing and gleaning, have found their participation in direct livelihood activities increasingly constrained due to restricted coastal access and the privatization of aquatic resources. The investigation revealed that while aquaculture provides subsistence and income opportunities for some households, but it also intensified the gendered division of labor. Women were further pushed on the periphery with undervalued roles, such as post-harvest processing, caregiving, and supporting aquaculture-related work without a formal recognition or compensation. Another more critical finding is that these women's work load increased without a corresponding rise in their decision-making power or economic independence.

In this study, the researcher focused on the women quarriers along the Mandulog River, and examined these women's perspective regarding nature, quarry, and their own well-being. The researcher sought to provide empirical truths on how environmental extraction activities are experienced at the ground-level and understand the overall state of women's well-being in physically demanding work like quarrying requires research that goes beyond economic productivity.

## **MATERIALS AND METHODS**

### **Research Design**

This study employed a multimethod, qualitative approach. Following the traditional of ethnographic research, in-depth interviews with women and observations in the field were conducted. A qualitative research approach was used to discover the meaning that people give to events that they experience as the researcher explored women's experience and well-being in relation with quarry operations.

### **Sampling Procedure**

Qualitative research usually necessitates a smaller sample size than quantitative research. Sample sizes for qualitative studies should be high enough to collect enough data to adequately explain the phenomenon of interest and answer the research questions. In this study, non-probability sampling

technique was adopted, specifically the purposive sampling in choosing the ten (10) informants to participate in the study. This is the deliberate choice of informants due to the specific characteristic, expertise and experience they possess, and thoroughly examined them to ensure a holistic representation. The researcher sought women quarriers that cover a range of relevant variables within the group (e.g., years of quarry experience, marital status, and age range), thus maximizing the diversity of perspectives.

## Research Locale



The study was conducted in a community area around the Mandulog River, specifically the community area located at Purok 7 Barangay Upper Hinaplanon, Iligan City (see Figure 3 for locale map).

Figure 3. Iligan Mandulog River Aerial Photos (2023).

Source: <https://promoteiligan.com/2023/01/16/iligan-mandulog-river-aerial-photos/>

## Research Instrument

The instrument used involved semi-structured interviews with 10 women quarriers selected through maximum variation sampling to ensure inclusive. The interview protocol focused on personal narratives nature, quarry, and their own well-being. Interviews were conducted face-to-face, transcribed verbatim, and arranged thematically.

## Data Collection

The following data collection methods were used in the study:

**In-depth Interviews** -A one-on-one interview was conducted with the 10 chosen informants. There were guide questions to be asked in conversational format to let the informants fully express their narratives and sentiments.

**Library Research** - The researcher conducted e-library research to obtain an overview of the chosen topic. This includes academic documents such as journals, conference proceedings, theses, peer-reviewed articles, and dissertations, both published and unpublished.

## Data Analysis

Guided by the approaches of Ecofeminist, the researcher is set to analyze and interpret the data gathered from interviews and observation. The data processes, methods, and analysis followed a systematic approach:

**Data Reduction** - This first step was all about pruning through the vast raw data gathered from the in-depth interviews and field observation. This process was all about finding repeating themes, significant concepts, and patterns pertaining to both Ecofeminist Standpoint and Household Theory. Redundant or

unnecessary information was put on the side to come up with a concentrated and workable dataset for the next steps.

**Transcription of Interviews** - All the in-depth interviews tape-recorded were verbatim transcribed with great care. This was so that the informants' own words, their emotional inflections, and the very facts of their stories were preserved.

**Data Presentation** - After transcribing, the compressed data was then structured and presented in different ways to allow interpretation. These included thematic matrices, and narrative summaries. Discussion includes identification of connections among different themes, regions of agreement or conflict among informants, and general patterns in the data.

### Validity and Reliability

This section details the measure taken to ensure the scientific rigor and credibility of the study's design data collection process, and analysis.

**Prolonged Engagement and Observation** – The researcher has an extensive history with the community being studied. Specifically, the researcher lived within the same community of the quarriers for over ten years. This immersion allowed for the establishment of deep trust and rapport, facilitating the collection of authentic, insider perspective. Furthermore, the researcher's interest in the women quarriers is a long standing, as they were also the subject of her past research experience, providing an in-depth understanding regarding the context and history of their work.

**Triangulation** – Data was collected using the combination of in-depth interviews from women quarriers, demographic survey, and field observation in the quarry site and women's households, to get richer and more comprehensive understanding of the research topic.

**Audit Trail** – The research materials, including the transcription of interviews, field notes, coding schemes, and analysis, were archived and maintained.

**Peer Examination** – The researcher regularly met with a neutral peer, specifically the Thesis Adviser to review the analysis and write-up.

## RESULTS AND DISCUSSION

### Social Profile of Women Quarriers

This section provides the social profile of all the 36 women quarriers within the study's geographical focus, the community along the Mandulog River in Barangay Upper Hinaplanon, Iligan City. The collective data presented aims to illuminate the unique social attributes that define this group, providing essential context for the subsequent analysis of their working conditions, and overall well-being.

Table 1. Social Profile of All Women Quarriers in Mandulog River

Social Variables		Frequency (n)
<b>Age</b>		
	10 - 19 years of age	2
	20 - 29 years of age	5
	30 - 39 years of age	6
	40 - 49 years of age	11



	50 - 59 years of age	10
	60 - 69 years of age	3
<b>Educational Attainment</b>		
	Elementary	10
	Secondary	21
	College	2
	Vocational	3
<b>Marital Status</b>		
	Single	12
	Married	23
	Widowed	1
<b>Supplementary Income sources (Non-Quarrying Occupation)</b>		
	Laundress	3
	Baby Sitter	2
	None	31

Demographically, women engaged in the quarry operation exhibit a wide **age range** spanning from 19 years old to 65 years old – from young adults to older working individuals. This broad age spectrum shows that quarry operation provides these women of across life stages to participate and be given opportunity to earn income. In addition, there is notable concentration of these women involved in the quarry operations that falls within the 40-49 years old age group. It shows that it is mostly middle-aged women in this age bracket who are more active in quarrying labor as there are limited income generation for them given that most of formal employment opportunities nowadays prefer hiring young applicants. This correspond to Debonneville (2021) in his study on Filipino domestic worker recruitment, reports that most of the employers want to hire workers who are younger, probably around 28 to 30 because older workers over 40 are seen as trouble, stubborn and less competitive.

In terms of **education**, data gathered shows that women's choice to engage in quarry operation may have indirect relation with their educational attainment. Most of the women quarryers in the Mandulog River have either attended and completed secondary and elementary education. Only a proportionately modest number among them have advanced to higher education or completed specialized vocational qualifications. Given the broader competitive pressure of today's labor and employment landscape, it sometimes translates to limited opportunities, especially to people who are deprived of social and educational capital, and could only rely on physically demanding, if not exploitative, work for economic survival.

In terms of **marital status**, significant proportions of women are married, some are single, while only one (1) is widowed. This high proportion of married woman engaged in quarrying is often driven by economic necessity and traditional gender roles. Women who are married often feel the need to contribute to their

household's income as part and extension of the domestic responsibilities. Particularly, when the husband's income is insufficient for their daily needs and given that most of them are living within extended families – more household members mean more mouths to feed. Income from wage alone is really not enough for them to survive. These married women's participation displays their resilience and dedication for their families even if it means they will face the “double burden” of engaging in both physically demanding quarry labor and domestic tasks.

Lastly, in terms of **supplementary income sources** that is not related or part of the quarry operation, significant portions of 31 women does not have alternative source of income and would either rely on their work on quarry site and their husband's income, While, the remaining women reported having a sidelined job other than quarrying, which consisted of on-call laundress and babysitter work for neighbors.

### **Women's Perspective on Nature and Quarry**

Women's perspective on **nature**, specifically the Mandulog River where they extract resources for subsistence, is not merely a site of livelihood. It is profoundly viewed as a life-giving force, inextricably linked to their survival and identity. Many women referred to the river with deep spiritual reverence, articulating a reciprocal relationship where the river provides, and in turn, demands respect and care, starkly contrasting with the extractive and often exploitative nature of quarry operation, as informants said:

“Kaning balas nga among nagakuha kay mura gyud siyag hinatag sa amoa sa kinaiyahan.” (This sand we are getting really feels like a gift to us from nature.) -**Alma**

“Mahulagway nako ang suba nga nakaluwas kanako tungod diri mi nagkuha og panginabuhian.” (I can describe the river as what saved me because it is where we get our livelihood.) -**Teresita**

Ecofeminism underscores the fact that women's proximity to nature is not simply symbolic but is frequently based on their practical experience as caregivers, nurturers, and gatherers of resources in their communities (Shiva, 1989; Mies & Shiva, 1993). They also demonstrate sensitivity towards nature as these women quarryers agreed to recognized and allowed the Mandulog River, which is the source of their supplementary income, to rest and replenish after days of continuous extraction. This practice is represented in one of the informant's narrative:

“Naay panahon nga dili pakwarehan ang suba para modaghan ang balas.” (There are times when quarrying in the river is not allowed so that the sand can replenish itself.) -**Fe**

This practice of women halting quarry operation to let the river rest reveals a deep interdependence and an acknowledgment that sustainability requires restraint which is a fundamental principle of ecofeminist thought. Those acts, though like baby steps, somehow challenge the capitalist logic that separates humans from nature and instead attempt to reaffirm interconnectedness between environment and humans, especially women. This moral ecology rooted in care, respect, and interdependence positions women not as passive victims of environmental degradation but as active agents of sustainable engagement with the earth (Salleh, 1997).

“Kung manobra tag kuha, madaot pud ta niini.” (If we take too much, we will also be harmed by it.) -**Fe**

“Dili lang abusaran ang suba kay nakatabang gyud kini sa among panginabuhian.” (The river should not be abused because it truly helps us with our livelihood.) -**Gloria**

Their respect for the river translates into their moral limits in terms of extraction, giving them a sense of responsibility and an instinctual grasp of ecological limits. This demonstrates intimate sensitivity towards the nature and the moral obligation to treat it with respect and not as a commodity. In contrast to industrialized, profit-driven forms of extraction that tend to exploit and cross ecological boundaries, women's quarrying activities may be regarded as expressions of ecological stewardship—based on a cosmology that acknowledges the agency and holiness of the natural world (Warren, 2000; Plumwood, 1993)

With regard to women's perspective about **quarry**, their narratives express that they have been participating in

the quarry operation as there were no other working opportunities for them due to various factors such level of education or age, and making quarrying as a last resort option and not as passion-driven occupation:

“Lisud gyud kaayo mangitag lain trabaho.” (It is extremely difficult to find other work.) -**Fe**

“Wala may laing masudlan nga trabaho.” (There are no other jobs available.) -**Alma**

These women quarriers rationalize their participation in quarrying not in terms of personal or professional growth, but purely out of necessity for family survival:

“Lisud gyud kaayo pero buhaton kay para sa pamilya.” (It's really very difficult, but I'll do it because it's for the family.) -**Elena**

“Antos lang jud hantud mahuman nakog pa eskwela akong mga anak...” (I'll just endure until I finish sending my children to school.) **KB-5**

These narratives have shown how does women perceived the physically demanding nature of quarry work, and treating it as something one must endure, not aspire to. These women are trap in a cycle of invisible work, with key functions played at home and in the production of income. Even if some claimed that they voluntarily choose to work in the quarry, it can be clearly seen that these decisions were made under a regime of socio-economic limitations. While they possess a strong sense of strength and resilience, this very perception highlights a systemic inequality that places disproportionate responsibilities and dual burdens upon women across the private and public spheres. Interventions to assist these women must therefore not only be targeted to economic opportunity but to gender norms, and domestic labor expectations. Nevertheless, these women quarriers continue to be in this informal economy not because they are passive, but because their labor is necessary and their choices are limited.

### Women's Perspective on the Quarry Impact on their Personal Well-Being

A systematic investigation of the women quarriers beyond their economic productivity is needed to understand their perspective and their state of well-being in physically demanding work, such as quarrying. For women quarriers, well-being is more than the physical health or financial state; it is about their emotional well-being, safety, sense of purpose, and connection to place. Their lives are touched not only by the tension of manual work but also by socio-cultural roles attributed to them as a woman. The women quarriers working along the Mandulog River, for example, must work hard physically in dangerous conditions, without appropriate protective equipment or regulated safety procedures. Drawing on a woman's point of view and story, the researcher presented how these women think about, experience, and negotiate their health, safety, and livelihood in the light of poverty and gendered work. The discussion will be supported based on data presented in Table 1, which summarizes women's viewpoints on quarrying and personal well-being.

Table 4. Women's Perspective on Quarrying and Personal Well-Being

From Women's Perspectives	Category of Well-being
Physical Vulnerability	Physical
Unsafe Work Environments	Physical
Poverty and Unemployment	Economic
Emotional Ambivalence and Resilience	Psychological

### Physical Vulnerability

The labor of women quarriers on the Mandulog River is not only physically demanding; it essentially puts their bodies at risk in a variety of ways as well, for a specific physical vulnerability. This vulnerability is not

just about the potential for injury, but about the systemic and ongoing toll their continued labor takes on their physical well-being. Women quarriers have consistently explained their work to be physically demanding, with frequent talk of pain, tiredness, and injury in the form of cuts from broken glass, strain on the body, and exhaustion:

“Bug-at jud ang trabaho. Sakit sa lawas, likod, tiil, ug mga samad samad.” (The work is really heavy. (It hurts my body, back, feet, and causes various wounds.) -**Fe**

“Kasagara nga sakit kay pagpamaol sa lawas ug hilanat.” (The usual illnesses [I experience] are body aches and fever.) -**Lorna**

Despite this toll, most of them said “makaya ra sa lawas,” or “**my body can handle it**” signaling both endurance and resignation. This normalization of suffering underscores how poverty necessitates bodily sacrifice, a theme central to ecofeminism, which argues that just as women are expected to serve and nurture without limit, nature too is often over-exploited with little regard for its regeneration or well-being (Shiva, 1989).

### Unsafe Work Environments

Beyond the immediate strain Their vulnerability is primarily caused by the quarrying environment itself. Due to continuous exposure to dust particles, women quarriers will likely develop long-term respiratory conditions. In addition, women exposure to the weather like heavy sun, rain, and heat, almost every day with little to no shelter, increases fatigue and heat disease, weakening their physical strength even further over time. One of the most critical topics and direct complaint of the women quarriers was the absence of safety measures and appropriate tools:

“Wala lang gyud safety measures sa kwarehan para mga tig-ayag ug tig-upok.” (“There are really no safety measures in the quarry for those who sand screeners and divers.) -**Alma**

“Kasagara nga sakit kay kanang matunok ko og bildo ug bantol. Wala gud tarong nga gamit ug among ginasuot para safe mi mga kwardor og tig-screen.” (My usual injury is getting pricked by glass and splinters. We really don't have proper equipment and things to wear to keep us quarriers and screeners safe.) -**Teresita**

“Maayo lang untag mahatagan mi sa saktong mga gamit sa kwarehan, mas palambuon pa ang operasyon nga safe pud sa among mga kwardor.” (It would be good if we were just given proper equipment at the quarry, and if the operations could be developed further in a way that's also safe for us quarriers.) -**Gloria**

“Labi na kay walay saktong pamalakad para safety ang mga gatrabaho sa kwarehan. Kung naa man gani ko usbon sa among operasyon dinhi, ang akong gusto nga tanan nga nagkware naay insurance kay simbako maunsa sila, luoy kaayo.” (Especially since there's no proper management for the safety of those working in the quarry. If there's anything I could change about our operations here, my wish is for all quarriers to have insurance, because if something bad happens to them, it's truly pitiful.) -**Lorna**

These women quarriers have been working in hazardous quarrying environment, sites marked by physical danger. Despite the intensity and danger of the work, the compensation they receive is irregular, and insufficient. This reality powerfully reflects ecofeminist arguments that connect the exclusion of women's work with the wider exploitation of nature. Ecofeminism also argues that the same patriarchal power relations which oppress nature are the same structure which render women's work, particularly in subsistence and informal economies, invisible and lowly paid (Shiva, 1989; Mies & Shiva, 1993).

The working conditions also reflect a double marginalization. On one hand, women are physically vulnerable due to the unsafe nature of the task; on the other, they are socially and economically vulnerable because their labor is undervalued and unregulated. There are no formal labor rights, health insurance, or safety protocols in place to protect them, and their earnings often fall far below the minimum wage. Moreover, the lack of institutional support and protection only increases their instability of the livelihood condition. In most instances, women who are involved in informal resource-labor force lack representation in policy processes



and environmental governance, which further consolidates their marginalization and deprives them of the ability to voice demands for better working conditions or ecologic sustainability (Warren, 2000).

The surrounding areas of the Mandulog River were once wrecked by Typhoon Sendong back in 2011. The community witnessed the mighty river, which had been gifting them with resources for livelihood opportunities, turning into a monster, washing away homes and breaking the bridge connecting mainland Iligan City and its southern part.

Subsequently, a promising flood control initiative was conceptualized by the local government unit of Iligan City, a flood control project. This project aimed not only to control flooding in the area but also to be built as an esplanade, beautifying community appearance and functionality (Philippine Information Agency, 2021). The project had some setbacks, however, such as temporary construction closures. Three years have passed, and there are still no updates on when the resumption or completion will be. Despite the devastating calamities that have passed, there is still inadequate action to enhance the living and working conditions of communities along the river, primarily affecting the quarriers. This lack of urgency echoes with ecofeminist thoughts which argues that this inaction is not accidental but a systemic outcome of patriarchal and capitalist structures that devalue both nature and those traditionally associated with it – primarily women. (Shiva, 2005).

### Poverty and Unemployment

The prevalence of poverty and unemployment in the surrounding community areas of Mandulog River leave residents with few choices, forcing them into an informal and often hazardous livelihood like quarrying. This reality is particularly evident among the women engaged in quarrying along the Mandulog River. As indicated in the earlier findings of this study, the majority of these women expressed that their involvement in quarrying was not a matter of choice, but rather a direct necessity born from the absence of formal employment opportunities and the pressing burden of economic hardship:

“Nitrabaho ko sa kuwarehan kay wala may laing masudlan nga trabaho.” (I work in the quarry because there's no other job I can get into.) -**Alma**

“Naa mi ani nga trabaho tungod ra sa isa ka rason, ang kapobrehon.” (We have this job for only one reason: poverty.) -**Diana**

In ecofeminism, the feminization of poverty is a critical concern. These women, constrained by limited education and age, remain disproportionately vulnerable to economic insecurity, forced to extract from nature while receiving little protection in return. Constrained by limited access to formal education, restricted employment options, and in many cases, the social devaluation associated with aging, these women remain particularly vulnerable to long-term economic insecurity. Deprived of stable income opportunities, they are compelled to engage in labor-intensive, high-risk work that extracts directly from nature—yet they receive minimal protection, recognition, or remuneration in return. Their labor becomes another resource consumed in the cycle of survival.

### Emotional Ambivalence and Resilience

The precarious reality of women in informal labor sectors frequently creates a complex emotional landscape, with survival dependent on decisions made against their will. Instead of being a straightforward business deal, their work becomes intricately linked to their wellbeing, creating a special fusion of emotions. Some of the women quarriers expressed conflicting emotions—gratitude for the income, sorrow for the cost.

“Wala ko kasabot sa akong gibati kung kalipay ba o kaguol.” (I don't understand what to feel, whether it's joy or sorrow.) -**Fe**

This emotional ambivalence reflects the deep and generally contradictory psychological toll of extractive survival. For these women quarriers who depend on the river for survival experience real gratitude for the existence it provides to their families, as well as alongside the recognition of its ongoing environmental decline and the habitual burden of individual physical cost. This complexity of feeling contributes a distinctive

emotional terrain.

Despite of the inner conflict, these women quarriers persist neither of ignorance nor resignation, but mainly because of a long-term vision of purpose. Their endurance is deliberate and profoundly ethical. It lies in what Kabeer (2000) calls agency in constrained conditions, the capacity to make purposeful choices and bear burdens not because they are painless, but because they serve a larger vision of familial redemption and collective well-being. As one of the women quarriers put it:

“Padayon lang gyud para sa akong pamilya, gamay lang antos hantud makahuman akong mga bata para maluwas mi.” (I'll just keep going for my family; a little more suffering until my children finish their studies so we can be saved/have a better life.) **-Gloria**

This statement is a powerful reflection of what Ahmed (2010) refers to as affective economies, where emotions circulate as cultural and political forces. The pain endured in the present is transformed into an investment in the imagined futures of their children. Their suffering is thus not passive. It is an active, conscious sacrifice—an economic ontology of feeling, closely tied to the ethic of motherhood and intergenerational care.

In this way, the emotional landscape of women quarriers becomes a site of resistance, where the tension between gratitude and sorrow creates a silent but deep form of strength. It subverts prevailing stories of agency because it shows how sacrifice, care, and endurance are themselves powerful forms of political and ecological engagement.

## CONCLUSION

The study explored the women's experiences in the quarry, their everyday lives, the empirical truths on how environmental extraction activities are experienced at the ground-level, and how all of those are impacting on the well-being of these women. Specifically, the study investigated and discussed the women's views and perspectives regarding nature, quarry and their own well-being.

The insights drawn from the women's perspectives revealed four distinct sentiments concerning their well-being as riverbed quarriers: 1) Physical Vulnerability; 2) Unsafe Work Environments; 3) Poverty and Unemployment; and 5) Emotional Ambivalence and Resilience. For women quarriers, well-being is more than the physical health or financial state. It encompasses their emotional well-being, safety, sense of purpose, and connection to place. The results of the study illuminated the complex, and often contradictory, socio-economic realities of women quarriers. It emerged that quarrying serves as both a lifeline and a trap for these women. These mostly middle-aged women are driven to this physically taxing and low-income while simultaneously expected to be fully accountable for domestic roles. Despite the struggles being in constant negotiation of economic survival and domestic duties, these women still exhibit remarkable resilience.

Drawing from **ecofeminist theory**, the study underscores how women's participation in extractive environmental labor reflects broader patterns of gendered and ecological exploitation. The ecofeminist standpoint criticized the patriarchal systems that treat both women and nature as expendable resources is also evident in how the quarry site serves economic survival at the cost of the women's health, safety, and connection to their environment. However, these women did not choose to work in quarry just to oppose and abuse nature. As a matter of fact, their reverence for the river and participation in spiritual and ecological rituals before extracting their needed resources from the river position them as unwilling extractors and unrecognized stewards of the environment. Their emotional ambivalence, wrestling with both gratitude and compunction, captures the moral tension of survival within exploitative systems that commodify both bodies and landscapes.

Ultimately, the result and conclusions of the study not only validated the ecofeminist theory in contextualizing the women's experiences and perspectives as women and quarriers, but also called for transformative, community-driven solutions that recognize and honor the complex realities of working women embedded in both human and ecological survival. The women quarriers from Mandulog River undoubtedly offered rich,

layered narratives that intertwine physical labor, spiritual beliefs, environmental consciousness, and socio-economic realities.

## RECOMMENDATION

Based on the findings and conclusions derived from this study, the following recommendations are presented:

For the quarrying community along Mandulog River, the researcher suggests that quarry workers, not just women, should be more courageous and braver in speaking up about their insights and sentiments. Let their voice be heard, advocate for their rights and safety working conditions, and call for assistance or intervention programs. Quarry operators should focus not just on the economic benefits of quarry operation but start prioritizing worker's well-being and healthy working environments as well. Quarry operators and the LGU should collaborate to establish a modest social security or health insurance fund specifically for registered quarry workers, mitigating the catastrophic financial risk associated with injury or illness.

For the intervention program and policymakers, the researcher suggests utilizing the study's result to design sustainable and gender-responsive interventions for women quarriers, livelihood alternatives should be locally viable, environmentally sustainable, skills-appropriate, and supportive of women's care responsibilities. Moreover, here is a concrete livelihood option is recommended by the researcher. Given the environmental risks associated with quarrying, women may be engaged in alternative green livelihoods such as tree nursery establishment, seedling propagation, riverbank rehabilitation, solid waste recycling, and eco-brick production. These activities not only generate income but also contribute to environmental protection and climate resilience within the community. Gender-responsive interventions may include support for sari-sari stores, food vending, tailoring, soap and detergent making, and handicraft production using locally available or recycled materials. These enterprises require relatively low capital investment and can be managed flexibly, making them suitable alternatives to physically demanding quarry work.

Lastly, for the academicians and future researchers, the researcher suggests conducting further interdisciplinary and participatory research about research gaps that are not covered in this study. Also, consider utilizing the current study's result and recommendations as future reference for future research studies.

## ETHICAL CONSIDERATION

The ethical guidelines established by generic research ethics were followed in the study. The research content and instruments used were submitted to the Research Integrity and Compliance Office (RICO) and has undergone an ethical review by the MSU-IIT University Ethics Review Board (UERB). Then, the informants were sent an informed consent which contained all the measure involved in the study. They were informed beforehand that participating in the research was entirely voluntary. The informants were treated with dignity because they are more relevant than the research. As the research study was over, all the data collection materials were discarded.

## ACKNOWLEDGMENT

The authors extend sincere appreciation to all individuals and institutions that supported the completion of this study. Special thanks are due to the Sociology Department of Mindanao State University-Iligan Institute of Technology for providing the necessary resources, technical support, and institutional guidance throughout the research process.

## REFERENCES

1. Ahmed, S. (2010). *The Promise of Happiness*. Durham, NC: Duke University Press.
2. Iligan Mandulog River Aerial Photos. (2023). [Photograph]. Promote Iligan.  
<https://promoteiligan.com/iligan-mandulog-river-aerial-photos/>

3. Israel, D.C. (2001). The Silent Dangers of Quarrying. PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas. No. 2001-05. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/ris-old-backups/pdf/pidspn0105.pdf>
4. Kabeer, N. (2000). The Power to Choose: Bangladeshi Women and Labour Market Decisions in London and Dhaka. London: Verso.
5. Macabuac, Maria Cecilia. 2005. "After the Aquaculture Bust: Impacts of the Globalized Food Chain on Poor Philippine Fishing Households." PhD Dissertation. Virginia Tech. USA <https://vtechworks.lib.vt.edu/items/55f488d0-05e9-48f2-8087-0983b33950a7>
6. Mellor, M., (1997). Gender and the Environment. The International Handbook of Environmental Sociology, ed. Michael Redclift and Graham Woodgate (Cheltenham, U K Edward Elgar, 1997), 195-202 (chapter 13).
7. Mies, M., & Shiva, V. (1993). Ecofeminism. London: Zed Books.
8. Salleh, A. (1997). Ecofeminism as Politics: Nature, Marx and the Postmodern. London: Zed Books
9. Shiva, V., & Bandyopadhyay, J. (2019). The Chipko Movement. Routledge EBooks, 224–241. <https://doi.org/10.4324/9780429330094-8>
10. Shiva, V. (1989). Staying Alive: Women, Ecology, and Development. Zed Books. Retrieved from <https://www.arvindguptatoys.com/arvindgupta/stayingalive.pdf>
11. Swami, I. (2019). WOMEN AND NATURE: IS THERE A SPECIAL RELATIONSHIP? ANALYZING THE WOMEN = NATURE EQUATION. Research Journal of English Language and Literature (RJELAL). <http://www.rjelal.com>;
12. Warren, K. J. (2000). Ecofeminist Philosophy: A Western Perspective on What It Is and Why It Matters. Lanham, MD: Rowman & Littlefield.