

Analysis of Women's Involvement in Marine Mining: Motivation, Challenges, and Perceptions of the Local Community of Belo Laut Village Mentok District West Bangka Regency

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Abstract

This study analyzes the involvement of women in the marine mining sector in Belo Laut Village, Mentok District, West Bangka Regency. Mining activities are indetik with masculine activities that must have physical strength, but women in Belo Laut Village play an important role in going through mining activities commonly called "Ngereman", namely bartering basic necessities with tin mining products. The data was then reduced, analyzed and interpreted with the aim of exploring the motivations, challenges and perceptions of local communities in the involvement of women in the mining sector. The results of this study show that the factor of women's involvement in the mining sector is an economic factor so that women carry out "Ngereman" activities. The challenges faced are such as a poor environment, the presence of substances that harm the body to the existence of forms of sexual harassment, both verbal and non-verbal. This mining activity has given rise to a very diverse perception of women's involvement, with some considering it a reasonable economic adaptation and part of local traditions. The results of this study are expected to provide recommendations to both the local and central governments to recognize the existence of women in informal mining activities, such as ngereman, and provide special protection regulations related to the safety, health, and rights of women in this sector. In addition, a policy of limited legal recognition of "ngereman" activities as part of the informal economy that supports poor families, accompanied by supervision and social protection mechanisms, is needed.

Keywords: *Marine Mining; Hegemonic Masculine; Women's Involvement*

INTRODUCTION

Bangka Belitung Islands Province is one of the tin-producing areas that is the main importer of state foreign exchange in Indonesia with data reaching around 80%. The mining process in the Bangka Belitung Islands is managed by two groups, from PT. Timah Tbk

which is an extension of the state (BUMN) and managed by the people or can be called people's mining according to Law No. 11 of 1967, people's mining is a mining business of excavated materials from all groups A, B, and C as referred to in article 3 paragraph (1) carried out by local people on a small scale or through mutual cooperation with simple tools for their own livelihood. The existence of people's mining can actually bring various benefits and positive impacts to the community if it is properly coached by the legalization and development of people's mining, so that it can drive the economy in the local area such as overcoming social and economic problems of the community in the area concerned, opening up new jobs and awakening entrepreneurial spirits in the surrounding area.

Mining in the Bangka Belitung Islands, especially the location of our research in Belo Laut Village, Mentok District, West Bangka Regency, is community mining or commonly called unconventional mining. The ecological crisis in Bangka Belitung due to the exploitation of natural resources has become a concern in various academic studies (Wahab, 2011). Ongoing tin mining has caused land damage covering an area of 124,838 ha, including changes in soil texture, decreased fertility, and disruption of ecosystem services such as carbon absorption and hydrological circulation (Sukarman et al., 2020). In addition, illegal mining along the twelve Bangka rivers has caused river sedimentation to increase up to twelve times compared to natural conditions (Hambali et al., 2024)

The location that is the subject of our research is the offshore tin mining sector in Belo Laut Village. An interesting phenomenon that we found in the field is the participation of women in offshore mining activities in Belo Laut Village, but what makes this phenomenon interesting is that women's involvement here is not as direct mine workers, but they are involved as "Ngereman". The term "Ngereman" is taken from the word thug, but the ngereman referred to in this term is what is done by women to these miners but is not done on the basis of violence and coercion. These women usually barter basic necessities for the miners with tin or ask for a share in a polite manner. This phenomenon is carried out because it is based on economic aspects. This activity has become a habit or tradition that has been passed down from generation to generation since the tin mining activities were operating and is used by women as a livelihood for additional income for their families. A study on women's involvement in the tin mining sector shows significant gender inequality (Harahap, 2022). As shown by the study on Gender inequality and local patriarchy in the mining industry in Bangka Island, it shows that, although women feel "uncomfortable", they

also "understand injustice" as part of the routine. This indicates a strong patriarchal structure and systemic oppression (Hidayat et al., 2024)

From the description above, mining is characterized as a masculine job that must allocate strength, courage and survival ability which is assumed to be owned only by men. Furthermore, there is an assumption that the mining sector is called or packaged with "hypermasculinity", meaning that men are more dominant in this sector, while women involved in the mining sector are said to be unnatural and also feared by some people. Thus, it is not uncommon for the involvement of women in mining areas to give rise to perspectives related to the presence of women in the mining sector leading to accidents that make the role of women in mining less important and not noticed. Our analysis found an interesting phenomenon related to women's involvement in marine mining in Belo Laut village. The involvement in question is not as a direct miner but they play a role as a squeezing. So the formulation of the problems in this paper includes: What are the factors that encourage women to be involved in mining in Belo Laut Village and what are the challenges faced by women in mining in Belo Laut Village and how the local community perceives the involvement of women in mining in Belo Laut Village.

DISCUSSION

Theoretical Framework

The concept of masculinities proposed by Connell (1995) explains that male dominance in the mining world provides a very important perspective in the analysis of gender relations, especially in understanding male dominance over women and the hierarchy among men themselves. Hegemonic masculinity is defined as a social construction of dominant masculinity in a particular society, which not only serves to justify male power over women but also to dominate other forms of masculinity that are considered subordinate. This concept is rooted in complex and dynamic social relations, and is influenced by historical, cultural, and structural contexts. In the journal approach, hegemonic masculinity theory is often used to analyze how patriarchal systems shape gender norms that legitimize male power. Research using this theory tends to highlight that hegemonic masculinity is not a fixed characteristic possessed by individuals, but rather a process that is continuously negotiated and maintained through social, cultural, and institutional practices. This makes

hegemonic masculinity not only a tool for understanding male dominance over women, but also for exploring how men themselves are caught up in the pressure to live up to these often unrealistic ideals..

This theory-based approach in journals often examines how hegemonic masculinity is represented and reproduced through various media, such as films, advertisements, sports, or political narratives. For example, masculinity associated with physical strength, aggressiveness, emotional toughness, and intellectual superiority is often promoted as the norm in popular culture. This representation not only reinforces gender stereotypes but also reinforces power structures that put heterosexual men in dominant positions. In addition, journals that use hegemonic masculinity theories also often explore the social impact of this construction. One of the main focuses is how hegemonic masculinity creates hierarchy among men themselves. Subordinate masculinity, such as those associated with gay men or men who do not meet certain standards of "masculinity," is often marginalized. In other words, hegemonic masculinity works not only through the subordination of women, but also through domination over other men who are considered "less masculine". This approach also allows for the analysis of resistance and transformation dynamics. In this context, journals often identify social spaces where norms of hegemonic masculinity are challenged or renegotiated. For example, feminist movements, LGBTQ+ advocacy, or changes in parenting and domestic work patterns have opened up opportunities for alternative constructions of more inclusive and equal masculinity. In this case, Connell's theory allows researchers to not only identify existing power structures, but also seek strategies to change them. The theory of hegemonic masculinity provides a rich framework for exploring how gender relations are organized, maintained, and can be changed. In the context of academic journals, this approach provides critical insight into the ways in which patriarchy operates in different layers of society and how resistance to those norms can pave the way for greater gender equality. Through its focus on complex and dynamic power relations, this theory has become not only an analytical tool, but also an inspiration for progressive social change.

From the perspective of hegemonic masculinity, mining work is often associated with physical strength, courage, and resilience, which are attributes attached to ideal masculinity. When women engage in activities such as balancing them, they often have to deal with social stigma or gender stereotypes that underestimate their ability to do the job. The presence of women in this space is often seen as a challenge to established norms of masculinity.

However, the reality on the ground shows that women who participate in balancing not only prove their capacity to work in difficult conditions, but also renegotiate gender norms. In many cases, they not only involve themselves as workers, but also play an important role in supporting the household economy. This shows resistance to hegemonic masculinity that sidelines women in jobs that are considered "heavy" or "risky". However, women's contributions in *ngelimbang* are often underappreciated due to deep gender bias. Hegemonic masculinity serves to maintain a gender hierarchy in which male hard work is recognized more than female hard work, even though both are involved in the same activity. For example, men in mining may be more respected because they are considered "appropriate" to traditional gender roles, while women are often only seen as "helpful" or perceived as violating gender norms. In this context, Connell's theory provides insights to understand how women in the mining world face structural and cultural barriers influenced by hegemonic masculinity. Women in this sector often have to prove their worth and contribution in a system that tends to marginalize their roles. The concept of feminist mining highlights how male-dominated exploitation of natural resources contributes to gender inequality and environmental degradation (Singh & Behura, 2022)

The history of women as miners allows us to understand how state and employer policies contribute to the masculinization of work and the workplace through the application of protective laws. Since the 18th century, the development in which women are increasingly excluded from formal work through state and employer regulations, which is based on the ideology of male breadwinners, workplaces and work processes. This trend lasted until the mid-20th century, when, in the name of equality, protective laws were considered discriminatory against women, and then increasingly dismantled. The development of social welfare systems in European countries does not extend to the rest of the world, where the growing "informal economy" has gained place. The mining sector in the "global south" is part of this process and women's informal employment is widespread across mines. Women's participation in mining often faces social, economic, and cultural challenges, including gender discrimination and unfriendly working conditions (Arthur-Holmes & Busia, 2020).

The involvement of women in work outside the home has now become a common occurrence, both in the formal and informal sectors. Women gain access and control over resources, economy, politics, social, and culture when working outside the home. Women can also organize themselves and increase their self-confidence to be able to play a role and

participate actively. The dominance of men in the mining world that occurs can be seen from how male workers often get jobs that are much harder than women, because a man has much more extra energy and is harder working, while women are seen as more suitable for light work and domestic work with the assumption that women are weaker creatures than men. In the production process of offshore tin mining, tin workers need maximum energy, because the production process is quite difficult and takes a long time so that men are the priority in this area.

The involvement of women in the mining realm in Belo Laut Village is due to the opportunity to be involved in mining which initially did not get permission from the relevant parties to "Ngereman" around mining. Initially, PIP mining had stopped, until at the end of 2024 the mining was carried out again and there was also an agreement between the mining party and the community according to the results of an interview with one of the PIP workers.

"Previously, the community had not obtained a permit for Ngereman in the PIP Mine, until at the end of 2024 there was an agreement between the mining party and the community regarding permits for Ngereman but only for the people of Belo Laut and also using name tags".

his is utilized by the surrounding community including women to get involved in ngerem activities, until now the number of women involved in the PIP mining in Belo Laut Village has increased, the involvement of these women consists of various age groups from young to old. From the perspective of feminism and gender economics, the data above shows that women are trying to eliminate gender injustice that occurs and fight for their rights to be involved in various fields, including in the realm of marine mining where in the mining industry women often face marginalization based on gender, social class, and work location (Ofosu, Sarpong, Torbor, & Asante, 2024).

Tin mining system and method at the mining mountain in Belo Laut Village

Initially, this system was only filled by men, but now the role of women is present to contribute, offering a service to miners. Women are present not as miners but as "thugs" who come to ask for results without any violence committed, or better known by Bangka people as "ngereman". The term "ngereman" includes several conditions, including:

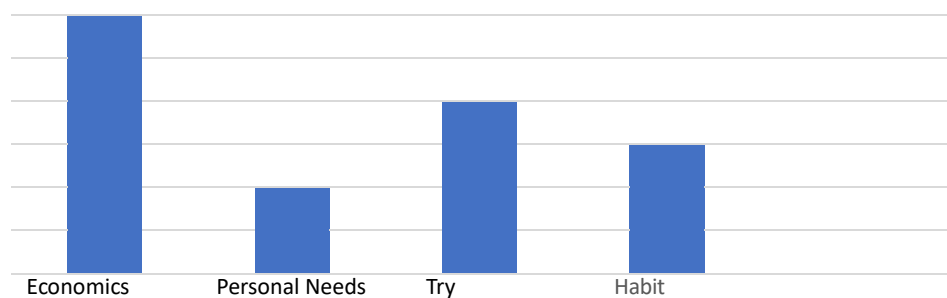
1. In exchange, namely 'ngereman' by bringing food such as cakes, rice, and drinks to the miners

2. Habit, that is "ngereman" that does not bring anything just to ask for tin from miners, is usually done by elderly parents.
3. Selling faces, namely "ngereman" only with beautiful and pleasant faces to chat with the miners." This type of "ngereman" has many conflicts because the tin produced is more than other types of ngereman, thus causing envy towards fellow women who "ngereman" and the wives of pontoon owners.

The three types of “ngereman” have the same goal, which is to expect to get compensation in the form of tin from the miners. This compensation is known to the community as "jatah reman". Village women who used to be just housewives are now starting to leave this arena in order to help the family economy in the hope of being able to pay for their children's school and for their daily needs. Women who "ngereman" are often involved in conflicts with each other and with men regarding the income they earn. This shows how women are forced to enter the informal economic space as a result of structural injustice, lack of access to decent formal jobs, especially in the masculine and exclusive mining environment.

In a global context, women's involvement in mining can increase diversity and inclusion, as well as bring benefits to the industry as a whole (Wilk & Gendron, 2024). The involvement of women in Belo Laut Village in mining which includes fishing activities in the PIP mine, various groups of women involved in mining from teenagers to the elderly. Ngereman activities carried out by the community are carried out with various motivations, ranging from economic reasons or just habits. The results of the interviews found that there are several driving reasons that require them to be involved in the production pontoon mining activities described in the table below.

Chart 1. Motivation for Women's Involvement in PIP Mining



Based on the graph above, it can be seen that the reasons for women's involvement in PIP mining are dominated by economic reasons, because with the permit for mining activities around the PIP mine, the community, especially women involved, can help their family's economy, whether their role is limited to helping their husband's economy or being the

backbone of the family such as widows and orphans. Economic pressures and limited job choices, women must enter the work sector that has been masculine. This shows that women's involvement is a way to survive the household economic crisis, not because of equal access. In addition, in feminist economic theory, this phenomenon is referred to as a shift from "reproductive" work to "productive" work where women remain in the informal sector and do not receive decent wages and do not have legal protection. Women are considered to be below men and have a more important domestic role because of the strong patriarchal culture in society. This shows that women have greater responsibilities in terms of household management (homemaker), care, nurturing, and education of children, as well as moral guardians. Men's work is often associated with the public environment, including outside the home, while women's work as breadwinners (bread winners) is only considered a secondary role (Yuwono, 2018).

Women's involvement in the mining sector can bring diversity and inclusivity that benefit the industry. However, in Belo Laut, women's participation has not been included in an equal empowerment scheme, but is limited to "followers of a masculine system." This phenomenon shows the shift in women's roles from reproductive work (taking care of the household) to productive work (earning money), but they remain in the informal sector which is vulnerable, not legally recognized, and not given a living wage. From a feminist economic perspective, this reinforces that women's double burden is increasingly real: they continue to bear domestic responsibilities, while earning a living in a gender-unfriendly workspace.

Challenges faced by women in involvement in the PIP Mine in Belo Laut Village

The involvement of women in offshore mining activities in Belo Laut Village has various challenges. Based on the results of the interviews conducted, there are challenges and obstacles faced by women in the PIP offshore mining sector, including Women who work "ngerem" in offshore mining often face negative stigma in society. In many coastal communities, work in the offshore mining sector is still considered "men's work" because it requires strong physical strength, courage to face the risks of the sea, and exposure to harsh work environments. This creates the perception that women are less suitable for this job. Socially, jobs such as diving, pulling pontoons, and surviving in extreme sea conditions are considered men's jobs in the offshore mining industry. This perception is reinforced by local

culture, which considers courage, physical strength, and resilience to risk to be qualities that women "don't have". Social stigma and cultural discrimination are symbolic barriers for women trying to enter this space. This is in accordance with what Judith Butler calls gender performativity: women are considered "inappropriate" because they do not meet the standards of dominant gender roles (Morgenroth & Ryan, 2018). The stigma against women who "nerhem" shows social control over their bodies and movement, especially for women who are active in the informal sector of offshore mining. This kind of stigma is a type of symbolic injustice that prevents women from gaining financial resources and opportunities. Even though women work hard and make significant contributions, they are still vulnerable to social marginalization.

The patriarchal culture that is still strong in some areas also limits women's participation in "nggerem" work. Many women are only considered as supporting men, such as helping to clean or sell mining products, not as the main actors directly involved in the mining process. This results in women often not getting equal recognition for their contributions to offshore mining activities. The impact of this patriarchal culture is that there is no social or economic recognition for women's contributions. They are often left behind in the distribution of mining results. They do not have access to social protection, work legality, or assistance programs because they are not registered in formal data as mining sector workers.

"Ngereman" activities are often carried out in shallow waters with simple equipment, such as hoses and manual pumps. Although it looks simple, this job has a high risk to safety and health. Women who engage in "stinging" often face dangers such as: Physical Injury: Transporting mining products or working in waters with strong currents can lead to muscle injuries or even serious accidents. Exposure to Toxic Materials: Seawater contaminated with fuel (diesel) from mining activities can have an impact on skin and respiratory health. Lack of Protective Equipment: Many women work without adequate personal protective equipment (PPE), due to cost constraints or a lack of awareness of the importance of occupational safety.



Figure 1. Women heading to the mine site



Figure 2. Women doing breastfeeding activities

In this mining sector, women often have limited access to the economic resources needed to improve their work output. For example, men usually find it easier to get capital to buy better equipment, while women only rely on makeshift tools. This economic inequality is also seen in the distribution of income. In many cases, women receive a smaller share of the mine than men, even though they work with the same level of intensity. This injustice is due to the traditional role of women who are often considered "extra workers" rather than primary workers. Efforts to create a more inclusive mining industry still face various obstacles, including discrimination, harassment, and a lack of policy support for women

Various social, economic, and occupational health challenges, women who are involved in "nggereman" activities are also vulnerable to facing sexual harassment, both verbally and non-verbally. This often happens in a male-dominated work environment, with a lack of supervision and low awareness of the importance of maintaining ethics and behavior in the

workplace. Verbal Abuse Verbal harassment includes any form of comments, remarks, or teasing that is harassing or sexual. In this marine mining sector, women often face inappropriate comments from male colleagues or the surrounding community. Forms of verbal harassment that often occur such as comments about women's physical appearance that they find sexy so that they seem seductive to men, as well as the use of harsh or disrespectful words that degrade women

Non-verbal abuse Non-verbal harassment includes actions or gestures that are sexual in nature without the use of words, such as indecent gazes that make women feel uncomfortable, and body gestures or hand gestures that contain elements of harassment. Non-verbal harassment often occurs in cramped or crowded workplaces, where women have to work in close proximity to men. In this sector, women often experience non-verbal harassment such as touching or poking sensitive parts of women, making women uncomfortable. Unconducive conditions and environments make women vulnerable to harassment. Below is a picture of women's working environment conditions when they are "Ngereman"



Figure 4. Environmental conditions of the location of the woman

Regulations governing "ngereman" activities in Indonesia are still limited, in the context of Bangka Belitung, these activities are often carried out informally or even considered illegal because they are not in accordance with official mining regulations. As a result, women working in this sector do not have adequate legal protection. The lack of regulation also has an impact on women's access to training programs or technical assistance that can improve their work safety and productivity. Without inclusive policy support, women will continue to

be in a vulnerable position in the marine mining sector.

Local Community Perception of Women's Involvement in the PIP Mining Sector of Belo Laut Village

The diverse views of the local community on women's involvement in the PIP mining sector in Belo Laut Village, reflect an interaction such as norms, cultures, economic needs and traditional views regarding gender roles. Some people assume that work in the mining sector is usually only done by men. This results in its vulnerability to facing various attitudes from the community. Some communities say that this activity is a form of constructivism that is inherited from generation to generation because of the economic conditions that force them to be involved in mining. Women's rights in the mining sector must be recognized and fought for to ensure equal participation and more inclusive economic benefits (Ngwerume, 2023).

The results of interviews with local communities involved in PIP mining that the community's perception of women's involvement in the marine mining sector of the Belo Laut Village Production Suction Pontoon is:

- a. The PIP committee, they feel that the existence of "ngreman" women has no effect on their work, because they also consider that those who "ngreman" are the community and their closest people.
- b. Male miners, for them, the presence of "ngreman" women does not harm them at all, but more or less the tin they produce will be shared with the "remans". They consider women to be "nervous" just like them, earning a living to meet their daily needs, especially like widows and elderly parents who are not working. With the existence of "ngreman", male miners feel helped to deposit goods or staples that are exchanged for the tin they get, because Male miners often go ashore only once a week.
- c. Boat Motorcycle Taxi/Speedboat Driver Destination Ponton, initially felt a little disturbed because there were many women who "braked" not to pay for motorcycle taxi services. Until finally the woman who "braked" was willing to pay with the results of the "remand" of the motorcycle taxi service, making the motorcycle taxi drivers also helped to meet their daily needs.

d. The local community, the people there do not feel bothered by the existence of "ngereman", because this is usually done both in land and sea mines. This is familiar because the "ngereman" activity is carried out from hereditary habits. In fact, the community also has a positive impact, especially on local stalls, because of the "ngebrake" barter system which helps people who sell their goods sell. From the above statement, it can be concluded that the involvement of women in the PIP mining sector in Belo Laut Village depends on the social relations owned by the community and the habits of hereditary traditions that can make women allowed to "ngereman" and be involved in mining.

CONCLUSION

The involvement of women in the mining sector in Belo Laut Village, Mentok District, West Bangka Regency, reflects a very complex social and economic dynamics around coastal communities. Although the mining sector has historically been a masculine job that has physical strength. This allows women to find space for participation. This activity allows women to be involved with miners by bartering basic necessities with mining products, this activity has become a tradition. The main motivation that encourages women to be involved in this activity is economic needs, especially women who are the head of the family such as widows or the elderly. Their involvement is inseparable from tantanan – challenges from poor field conditions, the presence of chemicals that harm them, and the existence of forms of sexual harassment, both verbal and non-verbal. The public's perception of women's involvement in "ngereman" is quite diverse, some people consider their involvement as an effort to improve the economy in difficult conditions but is not only an economic factor but also a form of socio-cultural adaptation in a patriarchal environment. This research is expected to provide recommendations for local governments and policy makers as an effort to appreciate the role of women in the coastal community economy, such as ngerem. Local governments can also create gender-based empowerment programs, data collection and mapping of women's work participation, including supervision of mining barter activities, so as not to harm women economically or socially.

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