

# MINING AND SUSTAINABLE DEVELOPMENT: A CASE STUDY OF CARMEN COPPER CORPORATION IN TOLEDO CITY, CEBU, PHILIPPINES

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**ABSTRACT:** This study examined the political dynamics of Carmen Copper Corporation (CCC) in promoting sustainable development, focusing on its relationships with the National Government Agency (NGA), Toledo City government, and Civil Society Organizations (CSOs). Using the Social Exchange Theory, it categorized these relationships into negotiated, reciprocal, and generalized types. The study identified challenges hindering sustainable development, including coordination issues, communication gaps, political influences, budget planning, and organizational proficiency. The outcomes of these relationships involved permit renewals, joint resolutions, CSO degeneration, and monitoring for memorandum agreements. However, despite CCC's efforts to engage these sectors and provide alternatives, the study concludes that they still need help to fully align with the three pillars of sustainable development: economic development, social inclusion, and environmental protection. To achieve holistic, sustainable development, these sectors may integrate these pillars effectively, benefiting Toledo City's development and sustainability.

**Keywords:** Social inclusiveness, economic development, environmental sustainability, political dynamics, sustainable development

## 1. INTRODUCTION

The Philippines was blessed with 270,000 km of forest covering in 1898 but reduced to 150,000 km in 1946 until just 8,000 km in 2006 because of mining [1]. Mining becomes a factor in why the country is considered to have a fragile tropical ecosystem. It is also considered an outstanding biodiversity hot spot because of its richness in mineral deposits [2].

Among the biggest mining operations in the Philippines are the Taganito Mining Corp in Surigao; Nickel Asia in Eastern Samar; Sagittarius Mines Incorporated in South Cotabato, Filminera Resources Corporation in Masbate, TVI Pacific Inc. in Zamboanga del Sur, and Carmen Copper Corporation in Cebu City. However, official 2015 poverty statistics showed that regions hosting these mining activities were the poorest, next only to the Autonomous Region of Muslim Mindanao (ARMM). Poverty incidence among individuals in the CARAGA Region is the second-highest in the Philippines at 39.1 percent. The Eastern Visayas posted the third-highest poverty incidence at 38.7%, followed by the Soccsksargen Region at 37.3%, the Bicol Region at 36.0%, and the Zamboanga Peninsula at 33.9 % [3].

Mining has positive and negative impacts that can affect the community and environment. The potential mining wealth of the country is estimated to reach \$840 billion or Php 47 trillion, or ten times the country's annual gross domestic product. The chamber of mines of the Philippines claimed, "The Philippines rank third in total gold deposits, fourth in copper, fifth in nickel and sixth in chromite ."The country has 8.03 billion tons of copper, 4.91 billion tons of gold, 0.81 billion tons of nickel, 480.26 tons of iron, 39.66 million tons of chromite, and 433.88 million tons of aluminum [2].

Despite the advantages of mining, its impact includes environmental degradation, displacement of population, worsening economic and social inequality, armed conflicts, gender-based violence, tax evasion and corruption, increased risk of health, and the violation of human rights, which lead to the distrust of the people that

may result to the difficulty of the mining companies to get their social license to operate (SLO) in any places in the world [4]. It proves that mining can bring adverse impacts to the nation. Mining industries promise vast sources of economic growth, but when not managed properly, it can have devastating effects on the community and the environment. It led to the idea that mining should be studied to highlight its strengths, weaknesses, opportunities, and threats to maximize the potential benefits it helped promote sustainable development [5].

Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs [6]. The fundamental principle of sustainable development is the integration of environmental, social, and economic concerns in the long term. The aim is to pass the means of survival in the future unimpaired and not diminishing [7].

The interface dynamics between mining and sustainable development have been very contentious, especially for the affected communities. Many international and national large companies are insensitive to society's needs and cause much of the earth's environmental degradation [8]. The discussion is on how to ensure that any mining activity contributes not only to profitable businesses but also helps in solving societal problems, providing platforms for the so-called "responsibility" through community engagement of the different stakeholders [9].

This paper aimed to synthesize and expand current knowledge concerning the relationship of the mining company to the different sectors, such as the government and the civil society organizations in promoting sustainable development in the Philippines, especially in Toledo City, where the Carmen Copper Corporation (CCC), the largest copper mining in the Visayas is found.

### Research Objectives

This study analyzed the political dynamics of Carmen Copper Corporation with the National Government Agency (NGA), Local Government Unit (LGU), and the Civil Society Organizations (CSO) of Toledo City in promoting sustainable development. Specifically, it aimed to: determine the

relationships created among the institutions and sectors: CCC-NGA; CCC-LGU; CCC-CSO; CCC-CSO-NGA-LGU; identify the factors affecting the relationship among actors; and ascertain the outputs produced in the relationships.

### Scope of the Study

The study's scope encompasses Toledo City, Cebu, where Carmen Copper Corporation (CCC) has been operating since 2008, following a suspension in 1994. However, the research was limited to four out of 38 barangays in Toledo City. These four barangays consisted of three host communities and one neighboring barangay significantly affected by mining: Barangay Biga, Barangay Don Andres Soriano, Barangay Media Once, and Barangay Cantabacu. Data were primarily gathered from specific respondents: representatives from the Local Government Unit, CCC's Community Relation Office, the National Government Agency's Safety Management Division, and heads of Farmers and Women Organizations within Civil Society Organizations. Moreover, one notable challenge in conducting this study was the need for more local studies addressing mining-related issues specific to Toledo City. Likewise, the researcher followed the suggestion of [10] that "only those individuals who gave their consent to participate" were included in the study.

### Theoretical Lens

This study was anchored on the theory of Social Exchange [11]; in a nutshell, it is a social psychology theory that posits that people engage in social relationships and interactions based on a rational calculation of the potential rewards and costs. Individuals strive to maximize the benefits they receive from relationships while minimizing the associated drawbacks. It is rooted in the idea that individuals engage in social interactions and relationships because they believe they will receive a net gain or benefit from doing so.

## 2. METHODOLOGY

### Research Design

This study used the qualitative method. This method is usually used when investigating individuals' encounters and perspectives [12]. Also, qualitative is used when the researcher seeks an in-depth understanding of the matter under investigation [13]. This method was appropriate in this study because it looked into the entertaining relationships of the different institutions and sections of the community from the viewpoints of the individuals involved.

### Research Instruments

The instruments used in gathering the data were structured, researcher-made interview guide questions. The guide questions were prepared in English with Cebuano translation for the participants to decipher the questions thoroughly. Probe questions were also provided.

### Research Participants

The 11 participants were selected purposively based on their involvement in mining-related sectors, including NGA, LGU, CSO, and CCC. They were chosen because of their direct knowledge and personal experiences related to mining. The researcher divided the participants population

into categories based on sectors (NGA, LGU, CSO, CCC) and selected participants from each category. For each sector, the head of that sector recommended qualified individuals who could represent and speak on their behalf. Due to this limited number of participants, [14] mentioned that the study's results may only reflect those included rather than the entire population.

## 3. RESULTS AND DISCUSSION

### Relationships Between CCC and NGA

The relationship between CCC and the NGA represented by MGB included compliance with one's obligation and responsibilities, regulation and abidance of existing laws, and monitoring and evaluating the operation.

The relationship between the two sectors was emphasized by the respondent from the MGB's Safety and Management Division, he said: "*CCC is considered to be compliant; that is why until now they are still operating because if not, they were already closed*". As proof regarding his claims, the MGB certified that they received complete and updated reports from the Carmen Copper Corporation.

The statement of the MGB regarding the CCC's compliance was supported by the respondent's statement from the CCC's Community Relation Division. She said: "*CCC is very compliant. The community relations division has the annual and quarterly reports to be submitted to the MGB. When the CCC does some re-alignment in terms of operation, the CCC informs the MGB and waits for the decision of the MGB to allow them or not*". Based on these statements, the relationship between CCC and MGB regarding compliance with one's obligation and responsibility was good.

According to the respondent from the MGB, "*The CCC is supported by the MGB because of the company's diligence in giving the requirements set by the MGB as stipulated in the Republic Act regarding mining*". He mentioned that the MGB released a certification signifying that CCC was compliant in submitting reports to their office as evidence for his claims.

The types of exchange between Carmen Copper Corporation and the National Government Agency were negotiated. A negotiated exchange is an exchange where the terms are openly discussed. The giving and receiving of benefits are direct and immediate [15]. The CCC and MGB's relationship was direct because once the CCC could comply with the requirements set by MGB, CCC obtained the permit for their operation. The failure of the CCC to comply with the requirements would mean non-renewal or non-issuance of the permit or the closure of their operation by the MGB, as stated in Chapter 24 of the DAO 2010-21.

### Relationships Between CCC and LGU

Based on the response of the head of the City Planning Development Office as the representative for the LGU-City level, he said that their role involved coordinating with other offices. "*...we coordinate with other offices aside from giving them (CCC) clearances if they have some projects or certification concerning their business*". He added that the role of the CPDO was to give recommendations to the Mayor on any observed action beyond the mandate. He said, "*The CPDO's role is to provide recommendations to the LGU-City who has the authority to issue a clearance to the CCC for them to operate*". This statement can be related to Section 1,

Chapter XVI of the Local Government Code, which states that they can call any employee stationed or assigned to the city to advise him on matters affecting the city to make recommendations thereon, coordinate with the said officials in the formulation and implementation of plans, programs, and projects, and when appropriate, initiate an administrative or judicial action against those who committed violations [16].

Upon the issuance of the permit, the LGU, both at the City and Barangay level, monitored and evaluated the operation. It was emphasized by the Barangay Official of Barangay Don Andres Soriano (DAS) during his interview: *"...There is a big role played by LGU because we are the host barangay, so in every aspect, we are trying to monitor every moment of the mines, particularly the disposal of waste, the rehabilitation of the mine area, tree planting and implementation of the SDMP or the Social Development Program wherein the host barangay should benefit from the commitment of the mine to the people of the barangay"*. The statement was supported by the Barangay Official of Barangay Media once that said: *"...barangay official's role is to release clearance. The barangay's role is to monitor their operations (CCC) closely. It has to stop if they are already outside what is being regulated"*. Article 4, Section 152 (c) of the Local Government Code (LGC) stated that no city or municipality may issue any license or permit for any business unless a clearance is first obtained from the Barangay where such business is located or conducted [16]. The barangay official's statement regarding the release of clearance was contended by the barangay official of Barangay Biga, who said, *"Barangay Biga cannot issue a clearance to the CCC because Barangay Biga has the requirement to the CCC to provide alternatives for the affected areas in terms of jobs, security, and relocation."*

As presented above, the barangay officials did their role to assist MGB in facilitating the process such as monitoring operations and in different aspects. Chapter 2, Section 8 of the DAO 2010-21 mentioned that the role of the local government unit is to participate in monitoring any mining activity as a member of the multipartite monitoring team. The multipartite monitoring team conducts a discussion or undergoes deliberation about the operation of the CCC. If there are unlawful acts on the operation (CCC), the MGB will conduct an investigation and can propose cancellation of the permit after due process [17].

In the critical informant interview and focus group discussion, the barangay officials from the four main barangays emphasized their opinions on their role in mining operations. According to the barangay official of Barangay Cantabacu, it was one of their functions to inform the mining industry of the constituents' problems. He said, *"The role of LGU in the barangay is to inform the community relation office of the CCC to handle the issues such as complaints of the people in the community."*

The LGU-Barangay level often proceeds directly to the CCC regarding their concerns and requests by submitting a resolution instead of coordinating first with the LGU-City level (Local Government Code, 1991). The coordination

should be at the levels of the LGU-City and LGU-Barangay because the LGU-City level has the authority to notify the MGB. The MGB, as the agency that released the permit, had the direct authority to reprimand the CCC in case unlawful acts were committed.

The type of exchange between CCC and the LGU-City was negotiated because the exchange of benefits was direct and immediate. Benefits are given and received directly from the direct recipient [18]. In this case, the CCC can get the clearance for their operation once they fulfill the requirements set by the LGU-City level. The failure of the CCC to comply with the said requirements to the LGU-City can be grounds for the cancellation, withdrawal of permit, and closure of the operation (CDAO 2010-21). Meanwhile, the type of exchange between CCC and the LGU-Barangay was reciprocal because the exchange of benefits was implicit and unilateral (Molm, 2003)[18]. It is implicit because LGU-Barangay has no authority to demand directly from the CCC; therefore, it needs to coordinate with the LGU-City regarding its concerns. The LGU-City level had the power to request the CCC regarding the concerns of their constituents.

#### **Relationships Between CCC and CSO**

The relationship between Carmen Copper Corporation and Civil Society Organization originated in the idea of "donor and benefactor of corporate social responsibility." "The CCC is a donor of benefits such as local jobs, infrastructures, and development programs for women, farmers, and all sectors, including health, social, and socio-cultural benefits. Those benefits were handed over to the civil society organization in exchange for the free and prior informed consent (FPIC) that required them to commence the operation. FPIC is granted to the CCC if they sustain the welfare of Toledo City. The contractor/permit holder/lessee assists in developing the host and neighboring communities by its SDMP to promote the general welfare of the inhabitants (Section 134 (a), Chapter 14 of the CDAO 2010-21).

Based on the focused group discussion, the CSO emphasized their roles in mining. The head of the environmentalist organization in Barangay Cantabaco said in his statement, *"The organization wanted to ask for benefits from the CCC such as jobs and employment for the people."* For the CCC to acquire FPIC, it should provide local jobs exclusive to those directly affected by their operation (CDAO 2010-21). The residents of the locality hoped that CCC would give them the priority to be hired to have the resources to support their day-to-day living.

It was supported by the representative of Media Once in her statement, *"...Since the CCC reaps the benefits of utilizing the mineral resources of Toledo City. They can provide jobs and programs to sustain people in the directly affected areas."*

Women's Organization representative of Barangay DAS stated that *"...Women Organization's concerns will be handed directly to the LGU-Barangay rather than submitting directly to the CCC."*

The representative of the CSO from Barangay Cantabacu said in his statement, *"CCC's agenda is to conduct a symposium related to the welfare of the community such as local jobs, health, and other benefits that the participation of the CSO is required."*



The type of exchange between Carmen Copper Corporation and the Civil Society Organization was reciprocal. Reciprocal type of exchange refers to the dyadic exchange, and unilateral [18], the giving and receiving of benefits is not immediate [19].

CSO can negotiate with the LGU-Barangay regarding their concerns and requests instead of directly submitting them to the CCC. The CCC gave benefits to the CSO without requiring immediate reimbursement, provided that when the CCC needs the participation and support of the CSO, they can obtain it. CCC and CSO's type of exchange was considered reciprocal because the exchange of benefits is unilateral and taboo. At some point, the CSO's benefits from the CCC were not parallel to what they truly needed for their welfare because the barangay officials had other primary concerns for the community.

#### **The Relationships Among CCC, NGA, LGU, and CSO**

The relationship among the CCC to NGA, LGU, CSO, and vice versa was summed up into monitoring and evaluation. The multipartite monitoring team performed This monitoring and evaluation, of which these actors were all members. One of the closely monitored aspects of the actors was the allocation of the budget of the CCC to different projects. The CCC claimed to provide the community with different programs such as livelihood for women (macramé bags making, soap making, and meat preservation); farmers (seedlings); health (ambulance, health center, and birthing homes); and socio-cultural (churches and services in the community). The company claimed to be compliant in giving benefits to the community, but since CCC was supporting 17 out of 38. They were confronted by the shortage of budget that caused the delay in granting requested projects. CCC was following the participatory situation analysis (PSA) in identifying the granting of the benefits depending on the necessity, and the needs of the most affected barangay created a pessimistic emotion to the LGU and CSO, especially when their request belongs to the slightest necessity.

Furthermore, the sectors also monitored the operation's impact on the health and safety of the community. The CCC claimed to be responsible for their operation because they passed the standard qualification of the MGB. However, the CSO and the LGU, both at the city and barangay levels, oppose this claim because, according to them, the operation is very dusty and threatens the community's health. The LGU barangay and the CSO submitted a resolution regarding this concern to the CCC. The CCC addressed this issue by drenching the highway from Barangay Biga to the Barangay DAS every afternoon. Another issue that the community filed to the CCC was the effect of blasting, such as the disturbance during their sleep and the ground tremor that caused the fracture to their houses. The CCC addressed this issue by minimizing the degree of tremor and strictly following the agreed blasting schedules.

The type of exchanges involved in the relationship between the CCC-NGA-LGU-CSO falls on the generalized type. The generalized type of exchange involves more than two sectors. The giving and receiving

of benefits may be given indirectly and cannot be obtained from the original recipient only but also from all the exchange members. In the case of the CCC that sought the support of the LGU and CSO, the CCC, despite the knowledge that the LGU and CSO did not have direct control over them, granted their request because they knew that the clearance of no objection they got from the LGU and the free and prior informed consent from the CSO was one of the requirements needed by the MGB to release the CCC the necessary permit for their operation. The CCC granted the benefits to the CSO and LGU but obtained the returns of the benefits from the MGB.

#### **Factors Affecting the Relationships Among Actors**

Factors refer to situations, circumstances, facts, and influences that affect the relationship. Among the factors identified were the following: coordination among institutions, flow of communication among institutions, politics and governance, planning and disbursement of budget, and organization proficiency. These factors need to be identified to know how they helped or hindered the promotion of sustainable development.

#### **Coordination Among Institutions**

Coordination among institutions is one factor that affects the created relationships of the actors. This factor can be related to the Interpersonal relationship stated by [20] in their work entitled, "Factors Determining the Development of Business Relationships in the Advertising Market". An interpersonal relationship is the agency's ability to take into account customer's needs and it creates the most optional conditions of its business policy for them. There should be coordination for organizations and institutions to come up with a consensus decision. When there is coordination, the members can feel team-spirited, adequately directed, motivated to express their optimum capacity, and efficient in developing the organization's goodwill.

The conducted FGD and the KII revealed that coordination was one of the challenges among the four institutions because the actors chose to avoid coordinating with each other, in the case of the CSO and LGU Barangay, which directly sent their resolutions regarding their concerns of the dusty environment and the effect of blasting to the CCC instead of notifying the LGU City. As evidence of the direct submission of the resolutions to the CCC, the barangay officials showed the list of resolutions being filed in their offices. The Barangay Official in Barangay Biga emphasized the need for coordination: "...the resolutions of the LGU containing the requested projects and programs are submitted directly to the province or the CCC. The CCC grants the projects to the LGU-Barangay even without the knowledge of the City Mayor or the LGU-City."

The LGU-City cannot give any reports of complaints to the MGB regarding the operation of CCC because the LGU-Barangay and CSO do not coordinate with them. Since there were no complaints against the CCC, the MGB considered the CCC compliant regarding its operation. MGB said that CCC is compliant in submitting their reports like the Three-Year Commercial Production Work Program and could pass the evaluation on their annual status report based on the Approved Work Program that the MGB required. The CCC is also considered compliant in paying its annual occupation fee

from 2001 to the present. Even though there may be times that the CCC deviated from its original approved program, as long as it is within the limit of the plus 20% and minus 20% deviation range that the MGB set for the mining industries, MGB can consider the company to be able to continue operating in the locality.

#### **The flow of Communication Among Institutions**

Communication is essential to build a thriving organization. However, the KII and FGD conducted revealed that the flow of communication among institutions is one factor affecting the relationships.

MGB and CCC communicate well; therefore, it is easier for them to fulfill their functions, such as submitting reports. Based on the interview, the MGB claimed that CCC is very compliant in their operation because they are within the range of the plus 20% and minus 20% deviations, as stated in the CDAO 2010-11. The CCC is also compliant in submitting their reports, like complying with the 48 Matrices of the Annual Status Report filed in the office of the MGB. The MGB claimed they could obtain the report from the CCC anytime, even though just a text.

The LGU-Barangay, CSO, and CCC have issues with communication because of the rigid experiences they felt with each other, like the delay in responding to their request. Despite this, the LGU-Barangay and the CSO claimed they continue communicating with the CCC by submitting their resolutions. They said they keep making consistent follow-ups and phone calls to the CCC, but the CCC needs to respond on time. It was emphasized by the Barangay Official in Media Once that said: *"...the Barangay Officials feel like they were being ignored by the company since the top management never considered a personal meeting with them despite their effort to talk to them by setting an appointment ahead of time. The sending of representatives of the CCC as the mediator between the company and the people added to the delay of transactions since there is no direct communication between actors."*

As a response to the concerns of the CSO and LGU regarding the delay in granting the request, the representative from the CCC explains that: *"The CCC has its commission on the audit to closely monitor the allocation of the budget of the CCC towards the community. Once the allocated budget is already consumed, CCC cannot use the budget intended for other projects."*

#### **Politics and Governance**

The MGB claim that they educate the LGU officials regarding the RA 7942 [21] or the Philippine Mining Act about the importance of their functions in regulating mining operation for the safety and welfare of the community. However, the MGB needs to be assured that these officials will be the same group of people to serve for the next term. The term of office is the duration given to a particular official to serve in the community. Once the term has expired, another set of people will be elected as a replacement to become active partners in implementing the law.

The political issue is why LGU-Barangay needs to coordinate with the LGU-City when dealing with their

concerns with the CCC. Most of their resolutions had been passed directly to the CCC and the province instead of negotiating with the Mayor. Though it is a prerogative of the LGU-Barangay to submit their reports to higher office, at least they need to inform the LGU-City to help them discuss their concerns with the CCC as it is stipulated in the law [22]. Therefore, the LGU-Barangay should coordinate with the LGU-City because the LGU-City has the authority to require CCC to grant their request. Because if they do not follow the proper protocol, there will be a tendency that most, if not all, of the LGU-Barangay and CSO issues and concerns will not be addressed.

#### **Planning and Disbursement of Budget**

Planning is one of the essential factors in an organization. If there is proper planning, it is easier for an organization to achieve the desired outcome that everybody can benefit from. In the case of CCC, planning is essential since they support 17 out of 38 barangays in Toledo. CCC intended a substantial budget for the community. Therefore, they support not just the four main barangays such as Barangay Biga, Barangay Media Once, Barangay Loay, and Barangay Don Andres Soriano, but also the other 13 additional neighboring barangays.

When these 17 barangays submit resolutions to the CCC simultaneously, the CCC cannot provide all the requests because of the scarcity of the allotted budget. This is why there are delays in granting the request of the LGU and CSO, making them feel like they need to be addressed. In the statement of the CSO from Barangay Cantabaco, he said: *"The CSO sends their requests to the CCC through the resolutions and formal letters. The CCC's delay in granting their requests created uncertainty for the CSOs; they feel like the CCC is just using them in their reports to be submitted to the MGB."*

#### **Proficiency of the Organization**

Proficiency in advancing knowledge and skills in the organization to become successful and sustainable. In the case of the organizations in Toledo City, especially in the remote barangays, only a few were blessed to attain education. It is a challenge for them to request because they lack the equipment, such as computers and printers; they need to travel from their place to the mainland to prepare and print the resolution. Most, if not all, of their resolutions are not accepted by the CCC, especially when they fail to cover the essential details to be included in the request. If the company accepts their request, the CSO has to wait for the availability of funds or at least do some consistent follow-ups so that their projects will be prioritized. The fragile experiences of the people often become a factor that may cause the withdrawal of support to the organization. It was emphasized by the representative of the CSO in Barangay Biga; she said, *"The CCC representatives should help the organizations in making resolutions since the members of the organization do not have sufficient knowledge. Area coordinators of the CCC have to guide and direct the people in preparing a resolution containing their request so there will be no more backlogs in the submission, and it will become a one-time process. The CSO should be provided supplemental aid like computers and symposiums to train the people on the right procedures of*

requesting by the LGU and CCC so they can be effective partners in promoting community development.”

#### 4. CONCLUSION

In collaboration with the NGA, LGU, and CSO, the CCC seeks to advance sustainable development in Toledo City by addressing three key pillars: economic, environmental, and social. While economic aspects like livelihood, education, and employment have received more attention, the overall integration of these pillars still needs to be improved. Issues stemming from poor coordination and participation among sectors hinder sustainable development efforts. To overcome these challenges, all community sectors must work together, engage in healthy deliberations, and reach consensus decisions to enhance the well-being of current and future generations.

Additionally, implementing gender and development (GAD) programs remains a challenge. While academic training is valuable, thorough planning is essential to target specific populations and achieve behavioral change. A holistic and proactive approach that involves year-round GAD program implementation is recommended for effective knowledge dissemination and concept application. Strategic planning is pivotal in the success of GAD initiatives, ensuring their long-term impact.

#### REFERENCES

1. Wicks CF. Mining in the Philippines. Concerns and Conflict. Report of a Fact-Finding Trip to the Philippines. July-August 2007.
2. Karu Y. The Mining Industry in the Philippines. 2011. Retrieved from <<https://www.yadukaru.com/2011/10/the-mining-industry-in-philippines.html>>
3. IBON. Regions with the biggest mining activities are among the poorest. (2017). Retrieved from <<http://ibon.org/2017/02/regions-with-biggest-mining-activities-among-the-poorest-ibon/>>
4. Mapping Mining to Sustainable Development. An Atlas. (November 2016). Retrieved from <[http://unsdsn.org/wpcontent/uploads/2016/11/Mapping\\_Mining\\_SDGs\\_An\\_Atlas.pdf](http://unsdsn.org/wpcontent/uploads/2016/11/Mapping_Mining_SDGs_An_Atlas.pdf)>.
5. Asia Pacific Economic Cooperation Report. Mapping mining to the sustainable development goals: An atlas. 2016. Retrieved from <[http://unsdsn.org/wpcontent/uploads/2016/11/Mapping\\_Mining\\_SDGs\\_An\\_Atlas.pdf](http://unsdsn.org/wpcontent/uploads/2016/11/Mapping_Mining_SDGs_An_Atlas.pdf)>.
6. United Nations General Assembly. Report of the world commission on environment and development: *Our common future*. Oslo, Norway: United Nations General Assembly, Development and International Cooperation: Environment. 1987.
7. Mining, Minerals, and Sustainable Development: Breaking New Ground. Executive Summary. 2002. Retrieved from <<http://pubs.iied.org/pdfs/9084IIED.pdf>>.
8. Utting P. Corporate responsibility and the movement of business. *Development in practice*, 2005 15(3-4), 375-388.
9. Kumi E, Yeboah T, Kumi YA. Private sector participation in advancing Ghana's Sustainable Development Goals (SDGs): Experiences from the mining and telecommunications sectors. *The Extractive Industries and Society*. 2020 Jan 1;7(1):181-90.
10. San Jose AE. Translating theory into practice: The gender and development training evaluation using Kirkpatrick model. *Sci.Int. (Lahore)*. 2023;35(4):605-609.
11. Cook KS, Cheshire C, Rice ER, Nakagawa S. Social exchange theory. *Handbook of social psychology*. 2013:61-88.
12. Torres RM, Sangala LJ, San Jose AE, Mortos AR. Untold stories of student-mothers' academic journey: A phenomenology. *Journal of Studies in Social Sciences and Humanities*. 2020;6(4):158-69.
13. Perry NE. Introduction: Using qualitative methods to enrich understandings of self-regulated learning. *In Using Qualitative Methods To Enrich Understandings of Self-regulated Learning 2023* Jan 6 (pp. 1-3). Routledge.
14. San Jose A, Jose RS, Robles-Concepcion MG. Mothers as teachers: The new role of mothers in the new normal. Available at SSRN 3926482. 2021 Sep 19.
15. Molm LD. Theoretical comparisons of forms of exchange. *Sociological theory*. 2003 Jan;21(1):1-7.
16. Congress P. Local Government Code of the Philippines. Manila, Philippines. 1991.
17. Raborar JL, Recio EO. Large-scale mining in Luzon, Philippines: Assessment of the mandated social responsibility to their host communities. *International Journal*. 2019 Sep;2(9):56-76.
18. Molm LD, Takahashi N, Peterson G. Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology*. 2000 Mar 1;105(5):1396-427.
19. Flynn FJ. Identity orientations and forms of social exchange in organizations. *Academy of Management Review*. 2005 Oct 1;30(4):737-50.
20. Seres-Huszarik E, Laszlo J, Toth, Z. Factors determining the development of a business relationship in the advertising market. *Acta Polytechnica Hungarica*. Vol.14.N.8, 2017 pp.72.
21. Clemente ED, Domingo SN, Manejar AJ. Answering critical questions on mining in the Philippines. *PIDS Discussion Paper Series*; 2018.
22. Pagsanghan J. The Local Government Code of 1991: Opportunity and Challenge. *Philippine Studies*. 1993 Sep 1;41(3):344-52.