

Effective Communication for Fostering Positive outcomes to at-Risk Children and Youth in Mining Impacted Communities in PNG: A Case Study of Special Mining Lease (SML) Communities in Porgera Gold Mine in Enga Province, Papua New Guinea

Alex Kambao¹,  and Starza Paul^{*2} 

¹School of Distance and Open Learning, Papua New Guinea;

²School of Communication and Development Studies, Papua New Guinea University of Technology, Papua New Guinea

Received 19 January 2026 | Revised 22 February 2026 | Accepted 18 March 2026 | Available Online 17 April 2026

*Corresponding Author: **Starza Paul** | Email Address: starza.paul@pnguot.ac.pg

Citation: Alex Kambao, and Starza Paul (2026). Effective Communication for Fostering Positive outcomes to at-Risk Children and Youth in Mining Impacted Communities in PNG: A Case Study of Special Mining Lease (SML) Communities in Porgera Gold Mine in Enga Province, Papua New Guinea. *Social Science Reports*.
DOI:<https://doi.org/10.51470/SSR.2026.10.01.108>

Abstract

This study focused on the relationship between effective communication and how it can help foster positive outcomes for children and youths impacted by mining activities and influences in mining communities of Papua New Guinea with a particular focus on Porgera Gold Mine in the Enga Province. The study objectively sought to examine the mining impacts, influences, and activities contribute to juveniles safety in Special Mining Lease mining communities in focused to Porgera; to assess how children and youths in Mining communities become socially and physically impacted; and to find out what factors generated illegal trespassing into mine site, commonly thought to be either to steal mine properties in particular to things that can be lifted including gold. The study employed a descriptive and correlational research design. Both quantitative (questionnaire) and qualitative (interviewing) data collection approaches were used. The findings of the study were that strong positive relationships (60% and 54%) existed between daily trespassing into the mine site and weekly and two time-week trespassing into the mine site, which shows children and youths regularly do illegal trespass into the mine site. This activity has been also shown to be a causal factor of children leaving schooling at early ages. The study recommends that New Porgera Limited (NPL) should collaborate with the government, community and community to develop a comprehensive monitoring system and the urgent need for understanding juvenile management methods with effective communication for a better future of the SML children and youths.

Keywords: Effective Communication, Mining Impacts, Special Mining Lease, Relationship, Illegal Trespassing, Mine site, Monitoring.

1.0. Introduction

The Porgera Gold Mine in Enga is one of the largest open open-pit and underground mining operations in Papua New Guinea (Wambu & Paul, 2023). The mining has generated a substantial amount for money since its operations in 1990. According to a recent report, Papua New Guinean shareholders of New Porgera Limited (NPL) stand to receive well over K26 billion over the 20-year life of the mine, with more than K11 billion (estimated \$2.53 billion US Dollars) expected in the first 10 years, if gold price keeps at its current rate (Department of Prime Minister & National Executive Council, 2024). With these riches flowing in from the mining activities, the people especially in the mine-affected areas are assumed to be well off but its not case in most mining centres like Porgera. Of this, the children and youths are most affected who are given more emphasis in this study.

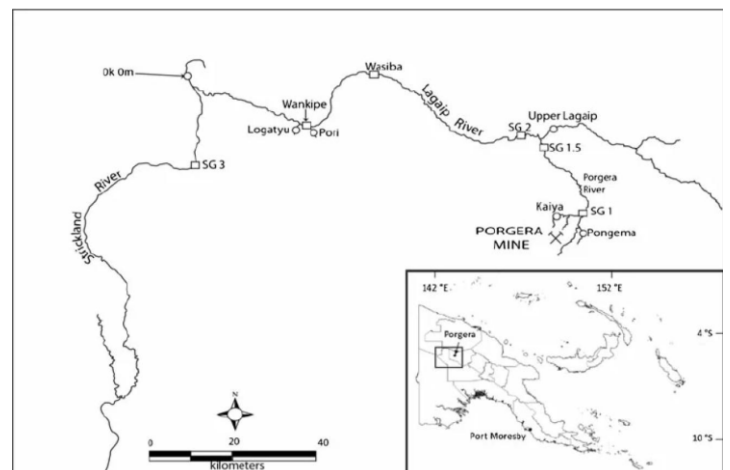


Figure 1: The map shows Porgera Mine site. Inset shows Papua New Guinea map

Source: Cresswell et al., 2023.

© 2026 by the authors. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and source are credited. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

Having this in mind, the focuses on how effective communication can be applied to mobilize the impacted communities and inform/persuade its youth and children to be safe from the dangers. The research uses the case of communication aspects in empowering safety, health, and specifically uses education in fostering positive outcomes as a lens into juveniles for seven (7) Special Mining Lease communities. Fostering sustainable positive outcomes for at-Risk Youth of these SML communities is explored through the concept of Positive Youth Development (PYD), which focuses on protective factors or the assets of youth and adolescents (Martin-Barrado, D, A. & Gomez-Baya, D, 2024; Theokas, 2005). PYD embraces the concept of youth as having the capacity to thrive, defined as "fulfilling one's potential and contributing positively to one's community" (Lerner et al., 2009; Edberg 2008). Community Capital defined in this study are natural, human, financial, cultural, social, political, and built capital, including those from the mine. In this study, youths from 8 to 21 years old are targeted and are to be instructed in effective communication skills, with education as a system as lens to see the positive change expected with a proposed notion of a 'Training, mobilizing and educating with effective communication skills framework' to better illustrate the ways in which positive outcomes of youth at risks yield. Training, mobilising, and educating the community are used as tools in moulding and shaping the juveniles at risk of mining impacts both physical and social. An explicit aim of the research is to understand and investigate how youth can be best helped in knowing the dangers around them in the mining area and to build them up as potential role players in these communities.

1.2. Background of the study

This study focuses on two (2) interest areas; Firstly, it focuses on mining communities and its youth impacted by large-scale mines in PNG. The development of the mining sector has contributed significantly to the development of the country's economy and will continue to do so for many years in the future, though there are social disadvantages that occur in communities and youths are the epicentres. This study is focused to the youth in the seven (7) Special Mining Lease (SML) communities living in and around the Porgera Mine who have been negatively impacted by the mine. These youth from 8 years of age towards the early twenties have built a norm/attitude that they can trespass into the mine's operational areas and get away with whatever valuable assets they can lift either for own use or to sell, despite deadliest dangers in the mine including chemical spills and electric fencing. Also, these youths from these seven communities have been playing in heavy dust fumes left by the earth-moving machines and used nearby creeks coming out from the open pit with dust and mud particles for bathing which have had health implications for some. To be environmental and socially friendly, New Porgera Limited (NPL) has deployed a team of community engagement officers who are tasked to make awareness to youths on dangers waiting within the mine area, but they have not been successful.

Secondly, we will in this study seek to assess how effective communication skills can foster positive outcomes to the youths at risk from mining dangers in mining-impacted areas of these selected communities. Children and youths are usually the most vulnerable stakeholders regarding mining impacts, including the impacts of project-induced in-migration, as children experience all the negative impacts, social as well as environmental, during their development years and are less

likely to benefit from compensation or mitigation measures than adults are. The source of juveniles contributing to the problem comes from the type of employees the Mine has. New Porgera Limited (NPL) has three categories of employees. According to a report from Porgera Positive Magazine, juveniles exposed to risks are not only indigenous people of the 7 SML communities but also bulk of population contributed from dependents of migrant mine local employees, job seekers and other migrants, or otherwise project-affected populations and these youths are exposed to most of the project-related risks and dangers there (Wambu & Paul, 2023; Porgera Positive, p, 10, 2017).

Hence, effective communication and education can generate youths by changing mindsets in prioritizing what's best in life and community. This study proposes that the pathway for this connection is through the effects of large-scale mining on the different 'community youths', conceptualized here through a 'Training, mobilising and educating with effective communication skills framework. Mine operations may claim more space in the community occupying suitable areas for schools, churches, playing fields, and community rehab centres for youths to build essential qualities of life. Every young person has a natural eagerness to explore the world and environment around them, including experiences, jobs, and other activities they find interest in. On the quest to discoveries, trespassing to mine areas have been a hobby for some and others have claimed dump areas as a playing field with friends without realizing the dangers everywhere that can claim lives. This is more common in Porgera where there are limited community institutions that can cater to youths as mentioned. Reports show that, most existing community institutions in the community (including churches, schools, and playing fields) have been impacted to some extent, with the continuous lands slides triggered by the nearby mine blasts (both underground and open pit) while schools have been covered by mudflows and gravel dumps (Wambu & Paul, 2023; Müller, Smith, Mellor, Rare & Genton, 1998; James, Nadarajah, Haive & Stead, 2012). In this sense, the mine-affected communities do not appear to be advantaged by their proximity to the large-scale mining operations, and still have to deal with the negative effects, including many on youth control that are associated with these operations.

2. Reasons behind the study

Papua New Guinea's high revenue from mineral resources is seen by some as a form of successful development, while others argue that the revenue flows are a contributing factor to the challenges faced in the impacted communities (Tabara, 2025; Post Courier, 2024; Banks, 2005; Filer, 1990). Several scholars (Tabara, 2025, Mako, 2023; Filer & Macintyre, 2006; Gilberthorpe & Banks, 2012; Jackson, 2002; Jell-Bahlsen & Jell, 2012; Kepore & Imbun, 2011) have commented that the landowner equity, compensation payments and other benefits of mining resources are not obviously contributing to more positive community development either at the beginning of mining, during operations or after mine closure. This can be seen as a form of a resource curse. Moreover, the lack of relevant policy support and actual service delivery by the PNG government, despite earning high revenue from mining, has led to a lack of government services delivered in all stages of mining (Tabara, 2025; Wambu & Paul, 2023; Hilson & Banchirigah, 2009; McKay & Lepani, 2010; Thomason & Hancock, 2011).

Children and Youth in mining communities are particularly vulnerable to changes and disruptions to their lives and development due to migration, and to social and environmental changes in relation to rapidly increasing or decreasing populations. Children and youth in the age of 8 to 21st are often overlooked in the management and participation of the projects in those areas as a result of being uneducated yet most are seen trespassing to the mine ripping off goods and later, they become potential illegal miners. As a consequence, in focus to Porgera youth have developed over the years a habit of making money by stealing properties inside the mine operational areas. According to Assets Protection Department Porgera (APD), a monthly figure of 5 to 6 hundred children and youths have been seen trespassing into the mine areas just to steal properties to sell outside, despite deadly dangers (including deep muds more than a kilometre wide) where it is possible to drown in seconds. Further, most children rely on their weightless skinny bodies to crawl and climb off barbed wired electric fencing when given a chase by the deployed guards from the Assets Protection Department (APD). The APD, Mining Police (MP), Corporate Social Responsibility (CSR), and Community Social Institutions (CSI) have not properly assessed and addressed the needs of children in a proper manner, which has led to the neglect of children's basic rights such as safety, family, education and health.

It is serious matter to see youths and children at early ages, between 8 towards 20s who have already established this interest of selling stolen properties (including gold) which seems an easy way of earning money; most of which is spent on alcohol and drugs that later results in disruption of community peace and violence. Porgera's illegal mining is being spawned by these children and youths in particular. Several studies (Hammar, 2010; Johnson, 2011) have linked generalized effects of problematic use of monies, growing inequalities, an increase in alcohol consumption and domestic violence, as well as rising rates of sexually transmitted diseases (including HIV/AIDS) and more negative health impacts caused by the direct effects of mining such as the lack of safe drinking water and a reduction in the available garden land. Anglicare, a church NGO operating in Porgera, had its tallies on HIV statistics of 2017, which showed that, Porgera had more HIV infected youths than old and middle-aged groups in comparison to whole of Highlands Region of Papua New Guinea. An interview with Anglicare Porgera Branch Manager on these statistics showed that more than 40% of the Porgera population are HIV infected and 3rd quarter of the 40% are children and youths between the age of 11 to 20 and still increasing (Anglicare, 2017; Gideon, 2017).

The company, on the other hand, has been deploying police into the communities to stop alcohol and drugs in collaboration with Village Peace Keeping Leaders, known as OMS or "Operation Makim Save" which means to let individual community peace breakers know that full measure of the rule of law exists (Paul & Sali, 2020). To some extent, they have some impact upon community behaviour change with the influence of fear in police presence, but this is not a sustainable change from the inside. A NPL press release has shown only one of the tribes among seven (7) SML community denouncing alcohol and drugs in the community. On 26 February 2019, one of the biggest clans within the SML area (Mamai clan, including Yokolama, Alipis, and Panadaka villages) took ownership to denounce publicly the sale and consumption of alcohol, marijuana and illegal drugs, and engaging in unacceptable social activities such as tribal warfare or violence, carrying around offensive weapons in

public, and stealing and illegal mining within these areas that are owned by the clan (Porgera Positive, Press Release, 2019). The National Mining Policy (NMP) directs mines to be operated smoothly with fewer injuries, taking safety precautions of safety and in respect to this total policy, illegal trespassing of individuals (including youths within the operational areas) are given the same safety precaution which disturbs operations and achieves little change. The National Labor Law (NLL) of Papua New Guinea prevents children under the age of 15 from employment and if Porgera Gold Mine plans to offer local jobs, the allowed youth age groups will be 16 years and above which will leave out the other age groups from 8 to 15. Security personnel and police presence in the community only increases fear in people, which does not change youth attitudes over time. Effectively communicating sound protective information and educating youths in SML communities in shedding light to mine dangers in concern to safety and health will have positive outcome for the future of these communities. Positive youth development will only occur when protective factors are provided that holds them together. One source of evidence supporting positive youth development is the body of research on resiliency suggesting that many youths in high-risk environments manage to do well, even thrive, as a result of protective factors (DSG 2013; Rutter 1985; Werner 1986). For instance, one common protective influence that distinguishes at-risk children and youths who succeed in avoiding risk behaviours is their bonding to caring adults and to groups that facilitate successful maturation by providing opportunities for young people to gain a sense of legitimacy (Ojijdp, 2014). This lack of initiatives has resulted in increased uncertainty among mine impacted community children and youths, increasing disorder. Therefore, there is a need to conduct a study on how we can effectively communicate to foster positive outcome to at-risk children and youths in mining impacted communities in Papua New Guinea and more in-depth study to Porgera Seven (7) SML communities and its youths.

3. Research Questions

3.1. Mining areas are swarming with dangers of all sorts' potential to claim lives, who, why and what have motivated young people to trespass into mine areas, including the power plant, open pit, underground, waste wall, dump and many others including warehouse premises?

3.2. Is there anything the company, including the government and the Local leaders can do to solve this issue?

3.3. How can effective communication strategies and messages be applied to fostering positive outcomes for youths be monitored and assessed?

4. Methodology

Howell (2013, p: 8; Paul & Sali, 2020) defined research methodology as a way of systematically solving a research problem. Since the aim of this study was to apply effective communication skills in fostering positive outcomes to at-risk children and youths in mining-impacted communities in PNG which will have a case study of special mining lease (SML) communities in Porgera, quantitative and qualitative research strategies were chosen and this chapter presents the methodology that was used during the study. It presents the research design, study population, sample size and selection, sampling techniques, data collection methods, data collection

instruments, procedure of data collection, reliability and validity of instruments, data analysis plus measurement of variables. In particular, a social construction, qualitative and quantitative data collection methods of inquiry and analysis have been applied for the research design.

According to Amin (2005: 235), a target population was the population to which the researcher ultimately generalized the results. Porgera Special Mining Lease (SML) communities had an estimated population of 14,000 which is divided as 2,000 to each seven (7) different SML clans (Porgera Alliance, 2015, p.10). The target population for this study was 210 according to the questionnaires formulated which included respondents involved mining impacts and projects that had directly or indirectly had influences on their lives. Among the 210 questionnaires prepared, 30 question papers were distributed to each of the seven (7) clans, which are, Anga, Angaline, Pulumani, Tieni, Tuanda, Mamai, and Waiwamaking the total 210.

The interviews and questionnaires were delivered and data was drawn from the Seven (7) clans and their communities, in which a single clan was estimated to be 2,000 of 200 households including the population of defused in migration attracted by mining activities. The children and youths of these communities have been the victims of mining activities which promises them nothing for their future. When interviewing and distributing questionnaires, there was no selection of ages and gender but all was done randomly to who ever met while entering their community.

This referred to the number of items being selected from the universe to constitute a sample (Howell, 2004). The sample size of the population in this study was made of 210 respondents and was selected basing on a formula for determining Sample size by Yamane (Yamane, 1967, p.886). Respondents included community elders, parents, children and youths, community leaders, NPL employees, and public servants, including women and girls. Formula was illustrated below:

$X = \text{sample size}, Y = \text{Population Size}, E = \text{precision Size}, Y - E = X$
 $210 - 14 = 196$ which means there 196 actual participants

Table 1: Sampling Procedures

SN	Porgera SML Clans	Population	Sample Size/ Participants	Sampling procedure
1)	Waiwa	30	30	Obtained on the basis of Simple Random Sampling
2)	Anga	30	28	Obtained on the basis of Simple Random Sampling
3)	Pulumani	30	26	Obtained on the basis of Simple Random Sampling
4)	Angaline	30	28	Obtained on the basis of Simple Random Sampling
5)	Mamai	30	25	Obtained on the basis of Simple Random Sampling
6)	Tuanda	30	29	Obtained on the basis of Simple Random Sampling
7)	Tieni	30	30	Obtained on the basis of Simple Random Sampling
	Grand Total	210	196	

It was initially done not according to selective of key figures but anyone from the age of four above to mid-30s of both male and female were considered and also children and youth from the Seven (7) Special Mining lease (SML) communities. Participants of this project and interviews were made only to those who agreed to partake.

It must also be noted that total of 14 participants was excluded from the data analysis, as a result of either being disturbed by community members in the process of interviewing or the questionnaires were misplaced which all focused on fostering positive outcome to children and youths at risk in mining-impacted communities such as this for Porgera SML communities. The field data was statistically analysed using the Statistical Package for Social Scientists (SPSS) and Ms Excel to generate descriptive and inferential statistics analyses.

5. Results and Discussions

This section presents the results alluding to the main research questions asked in the study. While presenting these results, it discusses and provides some reasoning as to why the results turnout to be presented as it is in this order; the result will be presented first than followed with the discussion for each of the research questions asked.

5.1. Results on research question one (1) -Mining areas are swarming with dangers of all sorts' potential to claim lives, who, why and what have motivated young people to trespass into mine areas including the power plant, open pit, underground, waste wall, dump and many others including warehouse premises?

The research question one was framed to identify why and what motivated young people to trespass into the mine areas. As shown in Figure 2, different groups of people within SML community that have had influence on the lives of children and youths to do illegal mining and illegally trespassing into mine site. From the responders, a bigger portion 36% represents friends of children and youths interviewed. Friends have impacts on lives of individuals as they share common thoughts. When looking at the network of friends within juvenile participants, the respondents and their friends are either influenced by family as shown 24% that family and parents including guardians have had influences on the lives on the young. Following Parents and family are elder in the community as participants showed 10% are influences of elders to trespass into mine site illegally to steal properties and gold. Second bigger portion of the pie chart of respondents of 29% shows that, while learning from friends, elders or even family members, children and youths have individually taught themselves on how to trespass and choose to trespass illegally into the mine site for survival through easy earning.

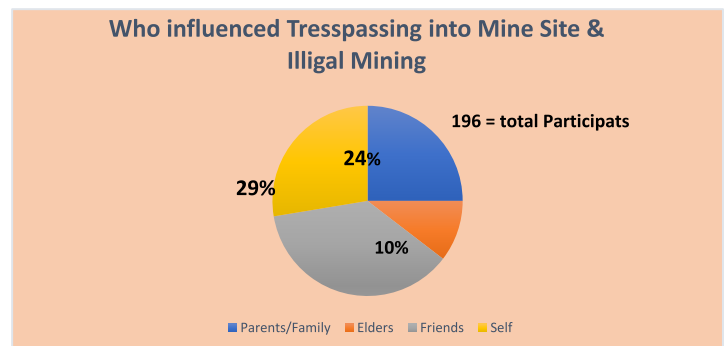


Figure 2: Who and what introduced you to illegal mining and illegal trespassing into mine site?

Source: Primary Data, 2026

According to Porgera Positive (2017), though there is equitable cash flow in the SML communities, poverty still strikes at all fronts as a result of illiteracy. Without education and the light of knowledge in mind, parents, guardians, elders and friends in the community think differently and they too have been the influencers of young people to act on illegal activities against the mining which are not safe as mentioned earlier. The influences of Porgera mine on children and youths of SML communities have greatly affected the children and youths to leave education in early ages which is having a legacy rise of illiteracy. It has been noted in the findings that, influences to children and youths in young ages are of social, mental, and physical influences that led them to the neglecting of education. Parents, friends, and community elders contributed both directly and indirectly on the negative influence through informing or advising how illegally they can enter inside mine site either to steal gold or to steal mine equipment that can be lifted with bare hand for own use and sale.

In the same way Bagattini (2019) argued that Children are a very unique population group which need to be educated for a healthy future community: they not only represent the true source of human capital potential but the future of societies and yet they have essential vulnerabilities need to always be taken into account. Porgera SML community children and youths are facing a dark future without education and there is a risk that if Porgera gold mining comes to a close, the futures of these communities would not exist (Mako, 2023). A special effective communication method can be applied to reintroduce education children and youths for early education in fostering positive outcome where all children and youths are seen in various schools which will allow them no free time for negative activities against the mine (Wambu & Paul, 2023). Mako (2023) described vividly how the mining in the Porgera Valley had affected the people. It was both a curse and blessing where few were benefiting but most were not. According to Wambu & Paul (2023) they were still dissatisfied with the miner because of conflicting interest with the miner.

In explaining the impacted communities in mining where children are most vulnerable to dangers, Samata and Nagar (2010, p.9) claimed that there are a multitude of ways in which children are impacted by mining have completely been neglected and mining administration is not being legally responsible for ensuring most of the rights and development needs of children which mostly occurs to area this study focuses. The mining companies supposed to positively develop the society they rip off resources from and that is the right thing to do. In Papua New Guinea, mining is expected to play a central role in the economic and social development of the country through the exploitation of the vast mineral resources, including the world-class deposits of gold mine in Porgera Enga province. Secondly, Rasmussen and O'Keefe, (2017, p.6) argued that children are also less likely to benefit from compensation or mitigation measures than adults do, and mining companies and government authorities alike overlook risks and safety of children who are directly impacted by mining activities and project managements.

PNG's high revenue from mineral resources is seen by some as a form of successful development, while others argue that the revenue flows are a contributing factor to the challenges faced in the impacted communities (Banks, 2005; Filer, 1990). All project development and mining companies have positive and negative social impacts on children and youths.

Understanding the status of children and youth welfare is a key starting point for mining companies to manage their social impacts in areas of mining activities. UN's Secretary-General's Report to the General Assembly (2009) defines 'Youth' as the time of life when one is young often the time between childhood and adulthood before maturity as in some cases the freshness in one's life in between the age of 13 and 25 and also defines children according to UN4Youth as those that are infants from birth to age 12 before joining teen age groups (2009). In Porgera gold mine, livelihood of youth and children in the mining community regarded as Special Mining Lease (SML) communities directly benefit from these services that attracts others to migrate.

According to Mineral Resource Authority (MRA) of Papua New Guinea report 2018, mining land owners not only receive infrastructural development benefits but also receive benefits of employment opportunities under local development program, land compensations and land loyalties that involve cash. Youth and children have portion of land hectares registered under SML and they too have their shares of benefits in cash. High revenues generated from the mineral resources could imply that communities around mining areas in PNG have access to resources to make a better life. The perception of benefits in mining areas encourages people to consider moving to the mining areas and population increases, (Kuir-Ayius, 2016, p. 4). There has been a massive increase of migrants in the Porgera valley increasing to social disorder and other influences. These and others have impacted youths and children in mining communities and Porgera Communities in the Enga Province is no option. According to Porgera District Educational Board, almost 95% of youths from the SML communities have not completed high school. A recent study concluded that, employment offers, land compensation, land loyalty payments, and small spin off business opportunities have allowed these people to access to cash and with money you can buy the world, (Kuir-Ayius, 2016, p. 7). These actions of youths have influenced children who are leaving school which has allowed illiteracy to grip Porgera SML communities to the core. As a result of illiteracy, New Porgera Limited (NPL) job ready program opened to equip locals for employment inside the company, but has failed.

As a result of money being in those hands of pleasure-seeking youths and children, drinking alcohol, rape, violence, community disorder and killing is increasing and Porgera now has the highest population of people in Enga province with the highest population of HIV infected in which most are youth and children from the SML communities according to Anglicare association (2017). NPL thus faces enormous problems of community planning and management in which children and youth become the central focus. Hilson and Osei (2012) state that there are more documented negative impacts than positive tangible results (such as a reduction of social problems) especially on youths and children, and hence for many the mineral resources can be seen as more a 'curse' that has created dependency, illiteracy, and community disorder rather than a 'blessing' (Hilson & Osei, 2012, p.16). However, all these authors missed out on how impacted juveniles in mining communities can be managed which Kuir-Ayius (2016) nearly touched.

Companies in the mining sector almost uniformly agree that children are vulnerable stakeholders within the community. But they often encounter challenges in understanding how children could be affected directly, rather than only as a result of mining impacts on adult family members or the broader community.

Egan (2015) argues that “child labour” is the exploitation of children through any form of work that may be illegal or considered exploitative, that deprives children of their childhood, interferes with their ability to attend regular school which is mentally, physically, socially and morally harmful. A key challenge for child rights work in Porgera is the confusion around the definition of a child in terms of age. United Nations' (UN) Convention on the Rights of the Child, which was adopted defines children as every human being below the age of 18 and in mining communities especially in developing nations, children above the age of six (6) and below eighteen (18) understand that it is compulsory to have household and community duties that can be performed in these mining communities.

Sadly, in Porgera Special Mining Lease (SML) communities, child labour is a norm, as studies show 80% of children in all Seven (7) Communities in Porgera practices it. The type of labour includes children selling mine waste scrap metals and wood of value, taking care of young ones while parents go out to mine pit looking for gold for longer hours, children brought to alluvial mining sites to be part of the team moving rocks and diverting waters, and involving children in breaking rocks in illegal mining. This has been a main factor of children from these seven (7) SML communities leaving primary schooling, causing high level of illiteracy which New Porgera Limited (NPL) struggles most in counteracting. Hyllested and Gorostiaga (2017) in UNICEF affirm that, if companies are failing to consider children as distinctive stakeholders, it means companies will not identify their specific impacts on children. This can lead to critical gaps in most standard approaches to social, environmental and human rights due diligence and management systems, (, p.6).

5.2. Results on research question two (2). Is there anything the company, including the government and the local leaders can do to solve this issue??

The research question intends to identify community and youth views on what they think is lacking from the company, provincial and district government and local leaders that may have provoked them from entering to mine dangers.

The items and actions to be done were asked to participants who were later converted into a graph as shown above and rated percentages according to the answers of the participants, as shown on graph above; 37% of respondents strongly agreed that resettling into a new location would be an option in minimizing children and youth negative influences. Respondents of (24%) agreed that if PJV creates playing fields for community children and youths in each of the different SML communities, it will reduce the number of juveniles entering mine operation areas looking for places to play. Respondents of (13%) as shown above agreed and stated that, if NPL offers jobs to locals living around mining communities would decrease the number of illegal miners and illegal trespassing. Others stated with (9%) as shown above that, they would stop the behaviour of illegally entering mining premises if NPL establishes TVET training or vocational training institutions. The others of (8%) thought that, if NPL empowers church and religious activities in the SML community would have positive influence and impacts of changing lives of children and youths. A 5% of respondents stated that they could change their behaviours of illegal trespassing into the mine only if important needs in life such as community water supply and electricity which have been abandoned for years is restored.

Final (4%) of the participants agreed as shown above said that, having children and youth rehabilitation centres will have some impacts of reducing juveniles entering mine premises illegally.

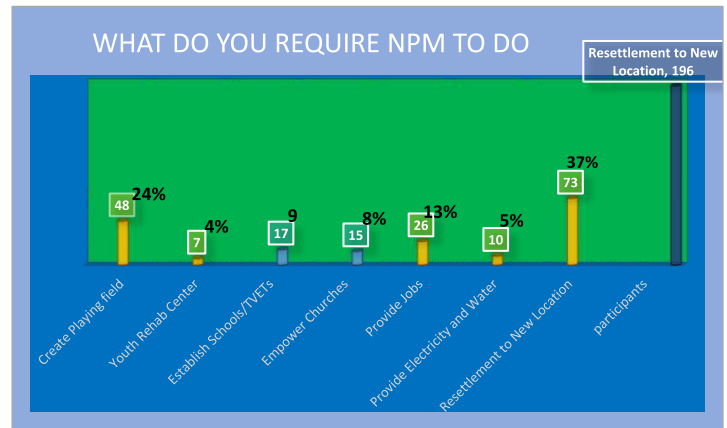


Figure 3: What do you want NPL to do that would make you stop trespassing?

Source: Primary Data 2026

To find out how to solve all underlying issues with SML communities and the mine with its operations, resettlement is the way forward (Tabara, 2025; Wambu & Paul, 2023). If the community views agree in high percentage that they want resettlement for the good of their community children and youths, NPL must take the responsibility of resettling them (Mako, 2023). One of the SML clan chief during interview said this about responsible leaders, companies and government in charge of compensation and company benefit sharing: “SML community members who are illiterates but fully understand what compensation and benefits they can receive from the mining which no one can teach them on. It is only with the complain of benefits and compensations not properly done by NPL has led to the community elders and parents to enter mine operation areas to steal scrapes or a property that can be lifted to make money as a way of survival and now it has been taught to the children and youths. There may be Compensation or not, people have already agreed to be resettled to a new location and that is what PJV has to look into for the betterment of the future of the SML communities (Chief Waren Taiyo- Suyan SML, 2025).

Relocation is one of three main factors that contribute towards causing the conflict of interest or illegal activities in the mine site (Wambu & Paul, 2023). When conflicts arise, children and youths like are affected (Batbayar, 2025). Families need good and sound homes or places where they can settle to raise their families. Such activities as mining happening within the vicinity of children and youths can have negative effects as discussed in Mako (2023). So Wambu and Paul argue (2023) that resettlement exercises can be a priority for the mining company to those affected by the mining activity. Crossman explained the theory of social control (as analysed in sociological theories in this same chapter at the top) under the Travis Hirschi 's four dimensions of social bond draw explain good understanding between the people and the miner. Two of the four stated as, involvement and attachment in order to keep the people (youths) eventful which makes them immersed and occupied instead of aimlessly moving around causing problems (n.p). This even motivates them to utilizing their own resources and securities at no cost during the course of the project. Having that understanding, royalty distribution and relocation become the major factors briefly stressed here on the communication perspective for conflict management with the community engagement part.

Building informal markets, promoting health and hygiene and beautification programs of beautifying the mining town, funding small economic projects and giving loans to reliable people upon community recommendation and their proposal for those willing to start up fisheries farms, piggeries, poultry projects, looking after endangered animals and orchid farming and regular youth advisory services as the community impact projects (Wambu & Paul, 2023). Life skills training is one of the important human resource developments outside of the main stream schooling like sawing for females and carpentry for males. Functionalists' perspective believes that these are norms and traits that strengthen the relationship groups and individuals and, in this case, it's between the company and the landowners. The World Bank and Amnesty International (2010) commented that these kinds of engagements and relationships should portray the extreme level of trust that has to foster continuing and sustainable engagement between stakeholders including the mining companies. One has to communicate all these needs whether already gained or yet to gain in the two parties' relationship groups.

Amnesty International's (2010) studies revealed that good community engagement gives wider opportunities to the individuals from the stakeholders group to make empirical decisions based on the everyday happenings - it improves decision making, enables the members to identify issues, taking ownership of the impacts and risks and where possible, they use their own effort, time and resources without costs. Community engagement can be considered a live 'process that may need to change or evolve as projects develop; it also needs to be flexible and transparent in order to respond to changing community needs over time' (Figueroa, Kincaid, Rani & Lewis, 2002, p. 5).

Provision of Infrastructure and Socio-Economic Developmental Services is a major heading under this section where the findings were analyzed and discussed to see how the company and other stakeholders can establish connection with the people, especially the youths and children. Socioeconomic services are a multidimensional phrase that covers all the services provided for the host community by the government and the company (Fallon, 2020). Socioeconomic in the context refers to the income-generating services like constructing main markets, providing loans to smallholder businessmen and infrastructural services (Wambu & Paul, 2023) like the Tipinim Airstrip, road construction services. This analysis was done to identify whether NPL provides any infrastructure and socio-economic services to the civil society where the mining project is taking place. It becomes an obligation for any mine prospecting companies to provide the basic infrastructural developments to the very soils where the extraction takes place (Mako, 2023). This contributes heavily in strong and intimate relationship of the company and host communities (National Research Institute, 2012).

Lilywhite and Sturman (2015, p.12) states that resettlement decree covers requirements for the preparation, implementation and monitoring of resettlement which is above the Land, Territorial and Mining Laws, the Decree outlines a further set of requirements in terms of the respective roles and responsibilities of the governments and developers. Resettlement can be seen as best alternative to foster positive outcomes to children and youths of these Special Mining Lease communities of Porgera. These options also were seen according to the study to have impacts on the push to stop illegal trespassing into mine site and illegal mining and this confirms with Wilkerson (2010) who asserted that the high prices of gold

and its value increasing in the international markets may boost local markets that will increase the number of children and youth to do more illegal mining and trespass into mine site to steal what could be sold for money. When participants were asked on what option would mainly stop children and youths from illegal practices to have a better future for the SML Communities of Porgera, almost 80% agreed on resettlement. Resettling SML communities to new locations away from mine would pose positive feedbacks where children and youths that have nothing to do will be sent back to school thereby eradicating illiteracy.

5.2. Results on research question three (3). How can effective communication strategies and messages be applied to fostering positive outcomes for youths be monitored and assessed?

The research question three (3) was drawn up with the aim to identify and apply effective communication to foster strategic behavioural change messages to result in positive outcomes for children and youths within mining impacted Communities, focusing on health and safety.

An assessment of how children and youths being affected by mine activities and its safety awareness to find out which group made an effective awareness on safety to children and youths in SML communities of Porgera Gold mine in Enga Province was as follows; majority of the interviewees represented by 19% said the departments of NPL such as Corporate Social Responsibility (CSR), Mining police (MP) and, Assets Protection Department (APD) have made huge impacts on juvenile safety awareness. Though there are unsorted groups of people that exist in a mining community, they understand God in its divinity and in the name of God, participants in greater numbers as shown confirmed it is a life-changing institution that changes mindsets positively from the inside of a person. Also 18% of the interviewees said teachers play vital roles in promoting mine operational safety awareness to juveniles in classes while in the duty of teaching. There are elders and community leaders who may have negative influences on children and youths to participate in illegal activities against the NPL, but there are others also with another mindset transforming children and youths against illegal activities against mining company as shown by 11%; and recorded from respondents that, 17% of safety awareness and mindset transforming moves are made by parents, families, and guardians. Also 8% of juvenile safety on mining operational awareness by "Operation Makim Save" (OMS) a law-and-order committee in the community made of leaders and public figures that mediate law and order issues.

Table 2: Has anyone informed you of dangers and who was more influential?

Organizations already Doing Juvenile Safety Awareness in Mine Communities	Frequency	Percentage (%)
PJVs - APD, Mining Police, CSR,	38	19
Church Pastors/Christians	48	23
School Teachers	37	18
Community Leaders & Elders	22	11
Operation Makim Save (OMS)	16	8
Parents /guardians	35	17
Total	196	100

Source: Primary Data 2026

If you can communicate well, you can get your message across to others in an effective way and they then have accurate instructions to complete their assigned tasks. If in any case, when a communication is not managed, the message sent gets lost in translation.

Management Training Development (MTD, 2010) on communication skills development manual states that, communication breaks down result in barriers against your ability to develop both professionally and personally. Furthermore, it states that communication skills are the tools that we use to remove the barriers of effective communication (MTD, 2010). People then struggle to convey their thoughts and ideas in an accurate manner, making it difficult to progress and nearly impossible to lead well. Even though communication skills are so important to success in aspects of life, many individuals find these skills to be a stumbling block to their progress.

If effective communication skills are properly applied positively in developing youths and children in mining communities impacted by mining activities, mindsets would change.

Yet the level of skill required for effective communication to occur, depends on the simplicity of this definition. Coronado-Maldonado & Benítez-Márquez (2023) say that a high level of individual success at a society was characterized by 'emotional intelligence', or skills of social awareness and communication. Typically, this does not only portray workers and elders in communities but same principle applies to effectively communicating to youths and children in mining communities through understanding the ability to motivate and influence for positive outcomes. These includes the ability to motivate and influence juveniles to give honest feedback sensitively, to empathize and develop relationships, to monitor one's own behaviour, to handle emotions both of self and others and to read interpersonal situations. Dixon and O'Hara (2016) further stressed that when communicating, it is important to note the emotional intelligence, the skills of social awareness, and communication which have to be developed for effective communication.

Upon this thought, the researcher states that if we can understand emotional intelligence, know the skills of social awareness, and communicate effectively accordingly to youths and children at mining communities who are at risk can be minimized. Effective communication includes both verbal and nonverbal communication; it is necessary to understand what message is being encoded, Dixon and O'Hara (2016) provides a positive way in which the company in Porgera, the District government, and the community chiefs and leaders to understand the nonverbal communication of youths and children in mining encode that communicates volume of why they have deviant behaviours offensive to mine and community. Understanding youths and children through nonverbal and verbal communication still is a barrier among mine communities; youth and children who have so many positive and negative views towards the mining company gives this thesis preference.

The Papua New Guinea National Mining Act (1992) says that all properties below the ground beyond six (6) feet belong to the State, unless permitted by the state for exploration and mining with a formal mining license through a land lease. With this act, anyone trespassing into mine leased operational area illegally is breaching the Mining Act 1992 in which the offence is against the state and the project developer. Kidde and Hogg-Haught (2008) on Juvenile Delinquency Court Assessment stated that, children and youths generally do not understand the impact of their offenses on victims or the community. Further added that, parents, victims, and community members agreed that children and youth are not being provided opportunities to learn from or understand the effect that their actions have on others (p. 1).

SML Community youths and children in Porgera however have different understanding from what Kidde and Hogg-Haught (2008) said; they believe deep down that their actions of illegal trespassing to mine sites are against the company policies which are delinquent behaviours yet they continued this behaviour as a way of survival knowing the consequences of being caught. Rasmussen and O'Keefe (2017) on Child Rights in Mongolian mining report to UNICEF states that caught juveniles on the act of stealing mine properties including gold as illegal miner (IM) must be properly judged with individual justice in questioning and correcting to reframe and rehabilitate personal characters of individuals because juvenile crime is linked to the absence of parental supervision in mining-affected areas (p. 19). The Reports of Rasmussen and O'Keefe (2017) perfectly contribute effective juvenile justice ways through questioning and correction but most importantly, including rehabilitation program in juvenile justice should properly seal their theory. From observation, it has been noted that in Porgera Mine, Assets protection Department (APD), Mining Police (MP) and Community Relation and Engagement (CR&E) of Corporate Social Responsibility (CSR) Department join teams in handling mine community juvenile issues in promoting safety. When juveniles are caught by these Porgera Joint Venture (PJV) employees, they are brought in for questioning and after two (2) hours, they drop them off to their communities of origin that does not pave ways of positive juvenile justice for attitude change.

Gentle-Genitty., Ansari., Marshall., & Gottfried. (2024) says that, every state has its own compulsory education law that spells out school attendance policy and that addresses delinquent children and youths where each parent of a child within the compulsory attendance age is responsible for the child's school attendance as required by law. Gentle-Genitty., Ansari., Marshall., & Gottfried. (2024) views juvenile justice and control from school children and attendance control where a frequent absent student is assumed his behaviour in the community to be delinquent. The Government of PNG also states that it is a crime if parents fail to send their children to school and an attempt to bring juvenile justice to youths and children on early education may work but, but Porgera SML community parents of children and youths are yet to learn the importance of education and its advantages. It has become a norm to parents and guardians that they accept the actions done against as a breach of mine constitution by juveniles, and the moral laws of children and youths for which deviant behaviours are subjected. As Gentle-Genitty., Ansari., Marshall., & Gottfried. (2024) poses his theories of juvenile control through schools may be applicable to other areas for positive juvenile justice however, not in Porgera where the schools do not have the resources to deal with absentees in a timely fashion.

A UNICEF report (Situation Analysis of Justice for Children in Barbados by Jacqueline Sealy Burke 2015) stated that major overhaul of the laws that govern the administration of juvenile justice is long overdue and ought to be given some priority. Burke (2015) further says that all countries have some differentiated procedures for such children where there is an ongoing attempt to ensure that they are treated in a manner substantially different to adults at all stages of the proceedings (p. 6). Rules, regulations and policies constructed in companies strengthen the structure of the organisation when they are upheld. Mining policies and laws regulated are supposed to be changed too if seen not effective as stated by Burke (2015).

However, it's different for Porgera when there are three different departments inside an organization focusing on juvenile control. Assets Protection Department (APD), Mining Police (MP), and Corporate Social Responsibility (CSR) department each have its own approaches in targeting for juvenile safety awareness in the mine. In most cases outdated laws can be changed to make possible outcomes to issues faced with juveniles however; Burke (2015) missed an important point in juvenile justice in any organization including government bodies is the work of Juvenile Liaison (JL). With Juvenile Liaison (JL), effective communication can be developed for positive outcomes with true understanding of needs and wants that pushes them to cause delinquent actions and that is likely to be an effective plan for Porgera SML community youth and children positive development.

6.0. Recommendations of how to help juveniles from engaging in illicit activities that endangers their lives.

1. The study recommends the need for developing a comprehensive monitoring system by the provincial government and the gold mining Company NPL and the urgent need for understanding of the value of Education in children and youths lives or even arresting parents for not sending their children to school.

2. In the pre-planning stage of resettlement, NPL has to identify families and houses that live next to the mine or houses that are sharing mine main fences should be resettled. Bilateral donors and financial institutions financing extractive industry infrastructure projects in Porgera should also explicitly require that international best practice guidelines for involuntary resettlement and forced eviction be met as term of contact and undertake all due diligence necessary to ensure that local citizens are treated fairly. Civil society organization should implement initiatives aimed at monitoring the compliance of development projects to set international standards and provide feedback to the relevant stakeholders and also gear up community engagement in the Porgera District.

3. NPL should have community relation officers and informers in communities that identify an individual or family encouraging children and youths to perform acts of illegal trespassing into mine areas which will be an offence to the Special Mining lease contract. It has been discovered that, children and youths' trespass into the mine daily and it has been their norm for years until reaching teen ages who are becoming potential illegal miners. To fix the problem of children and youths being influenced by either risk against mine and within themselves. Porgera Joint venture with the provincial government representing the national Government should introduce explicit legislation on protocols for involuntary resettlement procedure to be followed in the course of future extractive industry that can be guided in future gold, gas and oil project developments. Clear outlined requirements must be prescribed to both government and private sectors in these cases in accordance with international standards including the UN basic principles and guidelines on Development-based resettlements.

4. The study recommends NPL to have a SML committee from each of the seven tribes that will identify the children and youths who trespass into mine site for illegal activities and also PJV must have a community youth group including church members who should campaign against illegal activities against the mine.

It is there for recommended that, stealing mine properties and gold should not be a way SML should survive in and it is unhealthy if the whole communities are neglecting the values of education to young children and youths. The Community Relations department should do more engagements with Assets protection Department of NPL in promoting lasting relationships through effective communication for development, as a matter of urgency, should promote a region-wide effort to community engagement for development that comes down to the level of local community members to understand needs. This initiative could be carried out through a joint PJV and government-civil society partnership.

5. The NPL should make sure there is transparency with leaders of land owners in charge of loyalty and benefit distribution, for it is basing on benefits not being distributed, community members have trespassed illegally into mine operation areas to find what they can benefit from and same attitude is transferred to their children and youths. When NPL makes sure, loyalty distribution and benefit sharing of spin off business opportunities and contracts are transparent to compensating, benefit sharing, and royalty distributions so that the last person on the list can have a same taste other have, in such a way issues of ghost compensation and benefit sharing will reduce.

6. NPL have to seek views for voluntary and agreed resettlement. With voluntary resettlement it comes with less risk where people have chosen to resettle but agreement on resettlement with NPL is quite challenging which has to be carried forward. There must be voluntary resettlement for development. In the meantime, of preplanning stage for resettlement, NPL must address young people on safety inside mine with their interest especially of sports competitions and talent show programs that will keep them busy.

7. Conclusion

This study has expanded the boundary of knowledge in the field of public relations, particularly community relations. It is an exploratory study of the community relations strategies used by the gold companies for conflict resolution and positive social development in focus to children and youths in the Porgera Gold Mine. The study is unique because, unlike several other studies that focused either on the communities or the gold companies, it presents reports of mine community children and youths impacted by mine influences and activities starting at very early age who are the future of that community that later becomes potential illegal miner which PJV faces as top red alerted issue every day disrupting operations. The study also identifies the strategic preferences of the communities, thereby helping us to determine whether or not the provincial Government or NPL are able to meet those expectations set by the local community members.

It also offers an addition to the process the project developer Porgera Joint Venture (PJV) so as to ensure the achievement of its purpose by building a better mining community with long-lasting relationships with the community through the development of children and youths with skills and education. This is based on an examination of the Porgera gold Mining Company's conception of the Enga Provincial Government and the Special Mining lease (SML) communities' understanding and perception of it. A Grassroots monitoring scheme or SML community monitoring of juvenile entering mine premises is suggested to help maintain the contact between NPL and the SML communities.

For the betterment of the future of that community, grassroots monitoring schemes in corporation with PJV can direct children and youths to school. Also, to foster a positive thinking children and youths valuing education, this study directs NPL to strongly carry out the program of resettlement that will resettle all SML communities. This also establishes that there is indeed a gap in communication between the gold mining company NPL and the SML communities in regarding to nurturing vibrant children and youths for the future. The study raises a possibility that the middlemen selected to represent the communities with the project developer NPL known as Porgera Land Owner Authority (PLOA) and committee established to distribute benefits and loyalties may be receiving the benefits without passing them on to the local people which may instigate locals to trespass into the mine in the name of benefit.

References

1. Amnesty International. (2010). In Papua New Guinea: Barrick Gold vs. Indigenous Peoples. Retrieved May, 2026 from: <https://www.amnesty.org/en/documents/asa34/001/2010/en/>
2. Amnesty International. (2012). Rights of the Landowners. New York City: Penn Plaza.
3. Batbayar, B. (2025). The Social Impact of Mining on Children: A Case Study in the Gobi Desert of Mongolia. Thesis to University of Waterloo, Canada. Retrieved March, 2026 from: <https://dspacemainprd01.lib.uwaterloo.ca/server/api/core/bitstreams/990668a5-a7bb-4d03-8ef6-fd782ca6081e/content>
4. Bagattini, A. (2019). Children's well-being and vulnerability. Ethics and Social Welfare. 13. 1-5. <https://doi.org/10.1080/17496535.2019.164797>
5. Banks, G. (2003). Landowner equity in Papua New Guinea's minerals sector: Review and policy issues. Natural Resource Forum, 27, 223-234.
6. Cresswell, T., Smith, R., Nugegoda, D., & Simpson, S. (2013). Challenges with tracing the fate and speciation of mine-derived metals in turbid river systems: Implications for bioavailability. Environmental science and pollution research international. 20. <http://dx.doi.org/10.1007/s11356-013-2066-2>
7. Coronado-Maldonado, I., & Benítez-Márquez, M. D. (2023). Emotional intelligence, leadership, and work teams: A hybrid literature review. Heliyon, 9(10), e20356. <https://doi.org/10.1016/j.heliyon.2023.e20356>
8. Dixon, T. & O'Hara, M. (2016). Communication Skills. Retrieved May 2026 from: https://www.valialoutrianaki.com/uploads/1/3/4/7/13471246/11_communication_skills.pdf
9. Department of Prime Minister & National Executive Council. (2024, April 5). K26 Billion Projected for Papua New Guinean Shareholders of New Porgera Mine. Retrieved March, 2026 from: <https://www.pmnc.gov.pg/k26-billion-projected-for-papua-new-guinean-shareholders-of-new-porgera-mine/>
10. Ed, B.N., D.L. & Rasmussen, S. G. (2017). Child Rights and Mining Toolkit. Geneva, Switzerland: UNICEF's Child Rights and Business Unit. Retrieved May, 2026 from: www.unicef.org/csr/files/FINAL_Child_Rights_and_Mining_Toolkit_060217.pdf
11. Ed O'Keefe, B. T., Daniel, L., & Tanja, R., (2017). Child Rights and Mining Toolkit; Best practices for addressing children's issues in large-scale mining: Retrieved May, 2026 from: https://www.unicef.org/csr/files/FINAL_Child_Rights_and_Mining_Toolkit_060217.pdf
12. Egan, S. (2015). TACKLING THE RISE OF CHILD LABOUR IN EUROPE: HOMEWORK FOR THE EUROPEAN COURT OF HUMAN RIGHTS. The International and Comparative Law Quarterly, 64(3), 601–630. <http://www.jstor.org/stable/24760846>
13. Fallon, J. (2020). ECONOMIC IMPACT OF THE PORGERA GOLD MINE: 1990-2019 And Loss of Income from Suspension Of Operations. Institute of National Affairs. Retrieved May, 2026 from: <https://inapng.com/wp-content/uploads/2020/12/Economic-Impact-Porgera-v4.pdf>
14. Figueroa, E. M., Kincaid, L. D., Rani, M., & Lewis, G. (2002). Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes. Johns Hopkins University's Centre for Communication Programs. Retrieved May 2026 from: <http://archive.cfsc.org/pdf/socialchange.pdf>
15. Filer, C. and M. Macintyre. (2006). Grass Roots and Deep Holes: Community Responses to Mining in Melanesia. The Contemporary Pacific, 18 (2), 215-231.
16. Gentle-Genitty, C., Ansari, A., Marshall, I., Gottfried, M., eds. (2024). The unlearning of school attendance: Ideas for change. Lausanne: Frontiers Media SA. <https://doi.org/10.3389/978-2-8325-4760-1>
17. Gideon, A. (2017, November 15). Repost of STD in Porgera. Anglicare Report of Porgera, 01 (06), 16.
18. Gilberthorpe, E., & Banks, G. (2012). Development on whose terms? CSR discourse and social realities in Papua New Guinea's extractive industries sector. Resources Policy, 37(2), 185-193. <https://doi.org/10.1016/j.resourpol.2011.09.005>
19. Hammar, L. (2010). Civic Insecurity: Law, Order and HIV in Papua New Guinea No. 6, (pp.119-140). Canberra, Australia: Australian National University, EPRESS.
20. Hilson, G. (2012). Corporate social responsibility in the extractive industries: experiences from developing countries. Resources Policy, 37(2), 131-137.
21. Hilson, G., & Banchirigah, S. M. (2009). Are alternative livelihood projects alleviating poverty in mining communities? Experiences from Ghana. The Journal of Development Studies, 45(2), 172-196.
22. Howell, K. E. (2013) Introduction to the Philosophy of Methodology. London: Sage Publications.
23. Ishma, H. (2017, November 30). Porgera SML Communities Benefits from Mine. Porgera Positive, 06 (13), 32.
24. Jackson, R. T. (2002). Capacity building in Papua New Guinea for community maintenance during & after mine closure. Mining, Minerals and Sustainable Development (MMSD) project of the International Institute for Environment and Development (IIED) (181). Retrieved from <http://pubs.iied.org/pdfs/G00805.pdf>
25. James, P., Nadarajah, Y., Haive, K., & Stead, V. (2012). Sustainable Communities. Sustainable Development Sustainable Communities, Sustainable Development: Other Paths for Papua New Guinea, Honolulu, Hawaii: University of Hawaii Press.
26. Jell-Bahlsen, S., & Jell, G. (2012). The trans-national gold curse of Papua New Guinea. Dialectical anthropology, 36(3-4), 317-341.
27. Thomason, J., & Hancock, M. (2011). PNG mineral boom: Harnessing the extractive sector to deliver better health outcomes. Canberra: Australian National University. Available at SSRN: <http://ssrn.com/abstract=1919304> or <http://dx.doi.org/10.2139/ssrn.1919304>
28. Johnson, P. (2011). Scoping Project: Social Impact of the Mining Project on Women in the Porgera Area. Port Moresby, PNG: Porgera Environmental Advisory Komiti. Retrieved May, 2026 from http://www.peakpng.org/resources/Women-in-Porgera-Report_Final.pdf
29. Kepore, K. P., & Imbun, B. Y. (2011). Mining and stakeholder engagement discourse in a Papua New Guinea mine. Corporate Social Responsibility and Environmental Management, 18(4), 220-233.

30. Kidde & Hogg-Haught. (2008). Juvenile Delinquency Court Assessment 2008. Administrative Office of The Courts. Centre For Families, Children & The Courts. Retrieved May, 2026 from: <https://courts.ca.gov/sites/default/files/courts/default/2024-10/jdca2008v1full.pdf>
31. Kuir-Ayius, D. D. (2016). Building Community Resilience in Mine Impacted Communities: A Study on Delivery of Health Services in Papua New Guinea. PhD Thesis. Massey University, New Zealand.
32. Kumi, S. (2014). Land Compensation and Community Expectation in Mining Context: A Case Study of Ahafo Gold Mine. An Unpublished MSc Thesis, Kwame Nkrumah University of Science and Technology.
33. Lerner, J.V., Phelps, E., Forman, Y.E. and Bowers, E.P. (2009). Positive Youth Development. In Handbook of Adolescent Psychology (eds R.M. Lerner and L. Steinberg). <https://doi.org/10.1002/9780470479193.adlpsy001016>
34. Lillywhite, S., Kemp, D. and Sturman, K., (2015). Mining, resettlement and lost livelihoods: Listening to the Voices of Resettled Communities in Mualadzi, Mozambique. Oxfam: Melbourne.
35. Management Training Development (MTD). (2010). Effective Communication Skills. MTD Training & Ventus Publishing. Retrieved May, 2026 from: <https://www.otcbahrain.com/wp-content/uploads/2017/12/Effective-Communication-Skills.pdf>
36. Mako, A. A. (2023, June 21). Mining in PNG: blessings, curse and lessons from the Porgera goldmine. Devpolicy Blog. Retrieved March, 2026 from: <https://devpolicy.org/blessings-curse-and-lessons-from-the-porgera-goldmine-20230621/>
37. Martin-Barrado, D. A. & Gomez-Baya, D. (2024, Jul 2). A scoping review of the research evidence of the developmental assets model in Europe. National Library of Medicine. Retrieved March, 2026 from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11250090/>
38. Müller, I., Smith, T., Mellor, S., Rare, L., & Genton, B. (1998). The effect of distance from home on attendance at a small rural health centre in Papua New Guinea. International Journal of Epidemiology, 27(5), 878-884. <https://doi.org/10.1093/ije/27.5.878>
39. National Research Institute. (2012, February). NRI Discussion Paper on Sustainability. Port Moresby: The National Research Institute.
40. Paul, S. & Sali, G. W. (2020). Communicating an Integrated Clan Based Approach to Tribal Warfare in the Enga Province. Journal of Communication, Politics & Society, Vol. 1, No. 3, pp. 1-12.
41. Post Courier. (2024, September 24). Benefit Sharing the Real Issue in Porgera. Retrieved March, 2026 from: <https://www.postcourier.com.pg/benefit-sharing-the-real-issue-in-porgera/>
42. Samata and Nagar (2010, p.9) Ed O'Keefe, B. T., Daniel, L., and Tanja, R., (2017). Child Rights and Mining Toolkit; Best practices for addressing children's issues in large-scale mining: Retrieved May 2026 from: https://www.unicef.org/csr/files/FINAL_Child_Rights_and_Mining_Toolkit_060217.pdf
43. UNICEF. (2009, November). The State of The World's Children. Retrieved May 2026 from: https://www.unicef.org/media/61751/file/SOWC%20Spec_%20Ed.%20CRC%20Main%20Report_EN_090409.pdf
44. Wambu, E. & Paul, S. (2023). Effective Communication Strategies and Community Engagement in Resolving Conflict of Interest between Porgera Landowners and Barrick Ltd Mining Company, Papua New Guinea. International Journal of Innovative Science and Research Technology, vol.8, no.5, pp. 3459-3470. <https://doi.org/10.5281/zenodo.8068948>
45. Wilkerson, A. J. (2010). Competition and Regulation in the Gold Industry: An American Perspective. W&M Law Student Publications. 15. Retrieved May, 2026 from: <https://scholarship.law.wm.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1012&context=studentpubs>