

Implementation of The Occupational Safety and Health Program In The Mining Sector (Case Study In The Mining Area of Morowali Regency, Central Sulawesi)

Akhmad Fahrul Islam^{1*}, Juanda Nawawi², Muhammad Rusdi³

¹ Doctoral Program in Public Administration, Hasanuddin University, Indonesia

^{2,3} Department of Public Administration, Hasanuddin University, Indonesia

(Jl. Perintis) Independence Km.10 Tamalanrea, Makassar, South Sulawesi, Indonesia)

*Corresponding author: akhmadfahrul17@gmail.com

ABSTRACT

Article Info :

Article history :

Received : 16-03-2026

Revised : 31-05-2026

Accepted : 30-10-2026

Keywords:

K3; Implementasi
Kebijakan, Pertambangan);
Health Program;
Human Resources;
Organization Bureaucratic.

One area experiencing rapid development in this sector is Morowali Regency, Central Sulawesi, especially following the establishment of the PT Indonesia Morowali Industrial Park (IMIP) industrial area as a nickel processing center. This industrial growth has boosted the regional economy, but has also given rise to various problems, particularly related to occupational safety and health (OHS). Mining activities involving the use of heavy equipment, hazardous materials, and complex working conditions make this sector a high risk of occupational accidents. Several reports indicate that a number of occupational accident incidents still occur in the IMIP industrial area, indicating that the implementation of OHS policies has not been fully optimal. This study aims to analyze the process of OHS policy implementation in the mining sector in Morowali Regency and identify factors that influence its effectiveness. The study used a qualitative approach with a descriptive type, conducted in the PT Indonesia Morowali Industrial Park (IMIP) area. Data collection techniques were carried out through observation and interviews with purposively selected informants. Data analysis used an interactive analysis model that includes data reduction, data presentation, and conclusion drawing, supported by the Interpretative Phenomenological Analysis (IPA) approach. The results of the study indicate that normatively the OHS policy has complied with national regulations, but its implementation in the field still faces various obstacles such as low worker understanding of safety procedures, differences in compliance levels between main companies and subcontractors, and weak utilization of incident reporting systems. The effectiveness of the implementation of the OHS policy is influenced by communication factors, the quality of human resources, the organizational bureaucratic structure, and the skills of workers in applying OHS principles.).



This article is an open access article distributed under the terms and conditions of the [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/)

How to cite this article:

Akhmad, A., Nawawi, J., & Rusdi, M. (2026). Implementation of The Occupational Safety and Health Program In The Mining Sector (Case Study In The Mining Area of Morowali Regency, Central Sulawesi). *Journal of Government Science Studies*, 5(2), 278-285. <https://doi.org/10.66254/jgssvol5issue2page278-285>

Copyright © 2026 Akhmad Fahrul Akhmad, Juanda Nawawi, Muhammad Rusdi

Journal homepage: <https://ojs3.unpatti.ac.id/index.php/jgss/>

Journal e-mail : Jurnaljgssunpatti@gmail.com

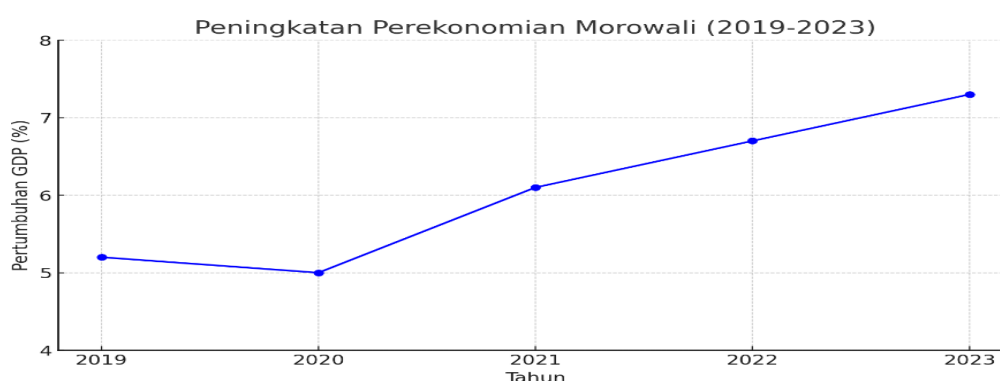
Research Article · [Open Access](#)

INTRODUCTION

Indonesia is one of the countries that has reserves source Power abundant nature , especially in the sector mining such as coal, nickel , copper , and gold . Commodities the become source important for economy national Because give contribution to Product Gross Domestic Product (GDP), state income through taxes and royalties , as well as open field Work for society (Wau, et.al., 2024). Although Thus , the sector mining also faces various challenges , such as impact environment , conflict social , as well as height risk accident demanding work implementation system safety and health work (K3) optimally (Nurmantu , 2003:20).

One of the areas that experienced development rapid growth in the sector mining is Morowali Regency , Central Sulawesi. The presence of PT Indonesia Morowali Industrial Park (IMIP) has push transformation of this region become center industry mineral processing , in particular nickel . This area interesting investment big from in and abroad as well as give contribution to growth economy area .

Figure 1. Growth Product Morowali Gross Domestic Product (GDP) in Percentage 2019-2023



Source : Central Sulawesi Statistics Agency 2024

Central Statistics Agency data show that growth economy Morowali experience improvement from around 5.2% in 2019 to 7.3 % in 2023 , which indicates role important sector industry mining in push economy area .

Although give impact positive to development economy , activity industry mining in Morowali also causes various problems , especially related safety and health Occupational Health and Safety (K3). Mining industry is sector with risk accident high work Because involving use tool weight , material dangerous , and condition complex work . A number of incident accident work that occurs in the area IMIP industry shows that implementation K3 policy not yet fully walk optimally . Report various institution show that since 2023 to early 2025 has happen hundreds case accident work in the area industry said , with a number of injured victims and died (Trend Asia, 2023; JATAM, 2024; Kompas.com, 2025). In addition , WALHI Central Sulawesi also recorded a number of incident serious incidents that occurred in the IMIP area throughout 2024 which resulted in loss of life and injuries (WALHI Sulteng , 2024).

The height number accident Work the influenced by various factors , such as lack of understanding worker to procedure safety work , use tool protector self (PPE) which is not optimal, as well as weakness supervision and implementation system management safety work in the company (Annisa, 2017). In addition , the problem communication in the environment

multilingual work is also possible cause misunderstanding in delivery procedure safety and improve potential risk accident work (Widyaningrum , et.al., 2025).

Other factors that influence implementation K3 policy is limitations source power , good source Power human , financial , and means supporters safety work . The lack of training as well as limitations facility safety can cause worker No understand optimal procedure safety that must be implemented in activity Work everyday (Pratiwi, 2024). In addition , the lack of investment in equipment safety and maintenance infrastructure also has the potential increase risk accident work in the sector mining (Bakhrun , et.al., 2019).

On the other hand , the implementation K3 policies are also influenced by factors institutions , including structure bureaucracy , coordination between institutions , as well as culture safety Work in organization (M. Mursak, 2023). Structure lack of bureaucracy flexible as well as procedure complex administrative can hinder monitoring and response to problem safety work in the field (Zein, 2023). In addition , the culture organizations that have not fully put safety as priority main can also become obstacle in implementation K3 policy in general effective (Setiono , 2019).

In a way regulatory , the implementation of K3 in Indonesia has arranged in various policies , such as Constitution Number 1 of 1970 concerning Safety Work as well as Constitution Number 11 of 2020 concerning Job Creation which emphasizes importance implementation System Management Occupational Safety and Health (SMK3) in the environment company (Mukhammad, 2021). However Thus , the effectiveness policy is highly dependent on implementation in the field , including supervision , compliance company , as well as participation worker in build culture safety work (Cantika , 2024; Hendri, 2024).

Implementation K3 policy in the sector mining often face various challenges , especially in the area industry growing mining rapidly like Morowali . Condition This show existence gap between provision regulated normative in regulations with practice implementation in the field(M. T. Mursak, 2019) . Some common problems appear including limitations understanding worker about procedure safety work , less optimally K3 training , as well as low level compliance to standard safety that has been set .

Industrial area mining Morowali , especially in the PT Indonesia Morowali Industrial Park (IMIP) area , is one of the... center industry processing nickel the largest in Indonesia involving thousands power Work with activity operational risky high . Condition the demand implementation effective , integrated and sustainable K3 policies to minimize potential accident Work as well as create environment safe and productive work .

Based on condition said , research This focuses on analyzing the implementation process K3 policies in the region mining Morowali as well as factors that influence success implementation . Analysis This important For understand How K3 policies are implemented in practice organization , at the same time identify various obstacles that arise in its implementation .

In line with formulation problems that have been formulated , research This aim For analyze the implementation process policy safety and health work in the sector mining in the Regency Morowali as well as identify factors that influence effectiveness its implementation . Through analysis said , research expected can give contribution conceptual and practical in strengthening K3 policy in the sector industry mining .

METHOD

Study This use approach qualitative with type descriptive For understand in a way deep implementation policy Occupational Safety and Health (K3) in the sector mining . Approach This used Because study carried out under conditions natural with researchers as instrument main in data collection . Generated data in the form of description from results observations and interviews that describe condition real in the field in a way systematic , factual , and accurate without do broad generalization .

Study was carried out in the PT. Indonesia Morowali Industrial Park (IMIP) area , Morowali Regency Morowali , which is one of the area industry based mining and mineral processing in Indonesia. This location chosen Because own activity complex industry so that relevant For study implementation K3 policies in the environment Work industry .

Data collection techniques were carried out through observation and interviews free guided observation used For observe in a way direct implementation K3 policies in the environment PT. IMIP's work , while interview done to informants who have involvement direct in activity operational and management safety work . Informant study chosen use purposive sampling technique , namely election in a way on purpose based on consideration that informant own knowledge and experience related object research . Informant study covering representative of the Department of Manpower Morowali Regency , Public Relations of PT. IMIP, Safety Officer, HSE Officer, Operator Supervisor, and several operators of PT. IMIP.

Focus study This is analyze implementation models policy Occupational Safety and Health (K3) at PT. IMIP in create environment safe , healthy , and productive work . Analysis done with see a number of aspect main , namely prevention risk accident work , strengthening competence and awareness safety through training and socialization , provision means safety like tool protector self (PPE), preparedness in handling condition emergency , and management environment healthy work .

Data analysis using analysis models interactive which includes data collection , data reduction , data presentation , and data extraction conclusion . In addition , the research this also uses Interpretative Phenomenological Analysis (IPA) approach to understand experience and perception informant to implementation K3 policy through an interpretation process or *double hermeneutic* .

RESULTS AND DISCUSSION

Implementation Process Policy Occupational Safety and Health (K3) in the Mining Sector in Morowali

Policy Occupational Safety and Health (K3)

Policy Occupational Safety and Health (K3) in the sector mining Morowali develop in context area industry with intensity Work high and risk complex work . In the area IMIP industry , K3 policy is functioning as instrument protection worker at a time guard sustainability operational industry . Policy This emphasize approach preventive through identification danger , assessment risks , as well as control risk since stage planning work .

However Thus , the results study show that implementation policy the Not yet fully internalized in practice Work daily . Some workers and management Still view K3 as obligation administrative For fulfil condition operational , not as need main in protection safety work . In addition , diversity background behind power work , good worker local and power Work migrant with level understanding different safety , also influence effectiveness implementation K3 policies in the region industry the.

Standard Operational K3 Procedures (SOP) Based on Job Creation Law

The K3 SOP in the IMIP area is working as guidelines operational in translate policy safety Work to in field practice . The preparation of SOPs has adapt with regulations regulated employment in Job Creation Law as effort harmonization policy safety Work with an improvement agenda investment and convenience try .

Research result show that The effectiveness of K3 SOPs is highly dependent on commitment company in implementation . In the condition supervision limited external , there are difference level compliance between company main and company subcontractors who have capacity managerial and resources different power . In addition , the use of Language technical in SOP often difficult understood by workers operational so that document the more functioning as condition administrative compared to as guidelines real work applied .

Implementation Theory Perspective Public Policy

Analysis implementation K3 policy in study This use a number of perspective theory implementation policy public . According to Mazmanian and Sabatier, the success of implementation policy influenced by commitment implementer , support group targets , and condition social and economic aspects that surround it . In the context of IMIP, although K3 regulations have available in a way clear , low commitment part actor implementers — especially at the level subcontractor — to be constraint main in effectiveness implementation policy .

Grindle's approach emphasizes importance interaction between content policy and context Implementation . Production target pressure , competition between company , as well as demands efficiency costs in the area industry cause safety Work often under priority productivity. Temporary That is , Lipsky 's Street-Level Bureaucracy perspective explains that K3 officers and supervisors field own discretion in determine priority supervision . Discretion This allows flexibility in face condition complex work , but on the other hand has the potential cause inconsistency in implementation policy if No balanced with mechanism strong supervision .

Implementation Process Occupational Health and Safety Policy in Mining Areas Morowali

Implementation K3 policies in the region mining Morowali involving various actors , including government , management area industry , companies , and workers . In the implementation process , managers IMIP area plays a role as bridging party interest between government and companies in implementation standard safety Work .

Research result show that success implementation K3 policies are greatly influenced by commitment leadership and culture organization . In work units that have commitment strong to safety , compliance regarding SOP and use tool protector self relatively more consistent . On the other hand , in more work units oriented towards production targets , the implementation of K3 tends to nature symbolic and reactive to incident accident .

In addition , the learning process organization in K3 policy is still not optimal. Reporting accident work and events almost near miss utilized in a way maximum as base evaluation and improvement system safety , so that information important related potential risk Work often No documented in a way systematic .

Factor affecting Implementation Occupational Health and Safety Policy in Mining Areas Morowali

Connection Communication with Human Resources

Communication own role important in support implementation K3 policy because become means delivery information related procedure safety and standards operational work .

Clear communication through socialization , direction work , as well as safety briefings capable increase understanding worker to potential risk work . With effective communication , workers tend more obedient in use tool protector yourself and follow procedure safety Work .

Connection Communication with Structure Bureaucracy

Communication also plays a role in support effectiveness structure bureaucracy organization . Clear communication flow allows policies and procedures safety Work can understood by all work units . Through good coordination , organization can operate monitoring and evaluation to implementation K3 policy in general more systematic .

Connection Communication with Skills

Effective communication participate increase skills worker in apply principle safety work . Delivery information through training , socialization , and direction Work help worker understand procedure safety as well as method identify potential danger . In addition , two - way communication allows worker give bait come back to management related constraint in implementation of K3.

Connection Human Resources with Structure Bureaucracy

Quality source Power man influence effectiveness structure bureaucracy in implementation K3 policy . Workers who have competence and understanding good safety capable operate task in accordance with distribution role in structure organization . Structure clear bureaucracy also helps coordination between work units in guard safety Work .

Connection Human Resources with Skills

Source Power human beings who have adequate knowledge and skills will more capable apply procedure safety Work in a way right . Improvement capacity through training , coaching and socialization of K3 to become factor important in increase skills worker in identify risk and prevention accident Work .

Connection Structure Bureaucracy with Skills

Structure clear bureaucracy support improvement skills power Work in operate his duties in accordance with standard safety work . Division directed tasks , supported by SOPs and mechanisms systematic supervision , helps worker increase discipline as well as ability in apply principles safety work in the environment industry .

CONCLUSION

Implementation policy Occupational Safety and Health (K3) in the area mining of PT Indonesia Morowali Industrial Park (IMIP) in general normative has follow stages planning , implementation , monitoring and evaluation in accordance with regulations national , such as Constitution Number 1 of 1970 concerning Safety Work and Law Law Number 11 of 2020 concerning Job Creation. However , its implementation in the field Not yet fully optimal. There are still gap between policy written and practical operational , especially in consistency implementation procedures , effectiveness communication safety , as well as utilization results evaluation as base repair K3 system in general sustainable .

Implementation K3 policies are influenced by interactions internal and external factors . Internal factors include commitment management , competence power work , culture safety , as well as availability source power . While that , factor external covers regulation , effectiveness supervision government , structure bureaucracy , as well as dynamics socio-economic area industry . Weaknesses coordination , supervision that is not optimal, and pressure productivity

industry become challenge main in realize effective and consistent implementation of K3 in the sector mining Morowali .

Improvement efforts implementation K3 policies in the region mining Morowali need a number of step strategic . First , strengthening commitment management through implementation leadership safety (safety leadership) and systems award as well as performance - based sanctions safety . Second , improvement competence power Work through sustainable , adaptive and inclusive K3 training for all over worker including power Work contractors and outsourcing.

Third , system reform supervision with increase inspection based risk as well as strengthen coordination between government regions and agencies supervisor employment . Fourth , integration of K3 in governance good corporate governance through independent audit mechanisms and transparent oversight . Fifth , development system reporting open and participatory incidents to encourage involvement worker in culture safety . Lastly , strengthening policy data -based through collaboration between government , companies and society For build system information accident integrated work to support formulation policy safety more work effective and sustainable .

Author Contributions

Writer First : Conceptualization , methodology , investigation , data collection , formal analysis , writing draft original , and visualization .

Writer Second : Data curation , data validation , and writing review and editing manuscript .

Writer Third : Supervision , administration projects , as well as validation methodology and results study .

All writer involved in the discussion process results study as well as give agreement to version end manuscript to be published .

Funding Statement

Study This No accept grant special from institution any funding in the sector public , commercial, or non-profit .

Acknowledgment

Writer say accept love to Department of Manpower Morowali Regency , management of PT Indonesia Morowali Industrial Park (IMIP) , and informants research that has been give information and support during the data collection process . Appreciation was also expressed to all over the party that has give input and assistance in compilation as well as improvement article This .

Declarations

Conflict interests . The authors state that they No own conflict interest related study This .

REFERENCES

Book :

- Annisa. (2017). *Occupational Safety, Health, and Environmental Engineering in Industry* . Media Nusa Creative (Mnc Publishing).
- Bakrun, M., Khurniawa , AW, & Widjajanti , C. (2019). Financing Non-Personnel Operations For Vocational School Based Regional Advantages
- Mursak, M. (2023). Implementasi Sistem Zonasi dalam Penerimaan Siswa Baru di Kecamatan Tellulimpoe Kabupaten Sinjai. *Journal of Government Science Studies*, 2, 61–70. <https://ojs3.unpatti.ac.id/index.php/jgs/article/view/8116%0Ahttps://ojs3.unpatti.ac.id/index.php/jgs/article/download/8116/5708>
- Mursak, M. T. (2019). PENGUATAN NILAI-NILAI KEARIFAN LOKAL DALAM PENYELENGGARAAN PEMERINTAHAN DESA DI KECAMATAN SINJAI TENGAH KABUPATEN SINJAI Oleh: *Jurnal Ilmiah Administrasita'*, 10(02), 138–145.
- National JATAM. (2024). *Notes Critical Occupational Health and Safety (K3) Issues in Indonesia's Mining Industry: Morowali Focus* . Jakarta: Jaringan Mining Advocacy
- Nurmantu , S. (2003). *Introduction Taxation* . Obor Indonesia Foundation
- Pratiwi, AT (2024). Analysis Influence System Management Occupational Safety and Health (SMK3) on Worker Performance Construction on the District Command Headquarters Development Project Pati Military (Makodim)
- Setiono , BA, & Andjarwati , T. (2019). *Culture safety , leadership safety , training safety , climate safety and performance* . Zifatama Jawaara
- Trend Asia. (2023). *Report Investigation : Condition Work and Accidents in the IMIP Morowali Nickel Industry* . Jakarta: Trend Asia
- WALHI Central Sulawesi. (2024). *Workplace Accident Situation Report in the IMIP Industrial Area 2024*. Palu : Indonesian Forum for the Environment, Central Sulawesi
- Widyaningrum , SST, Ilham, ST, Lubna Anwar Sadat, MKK, Henny Saida Flora, SH, Elang Pramudya Wijaya, ST, Mt, I., ... & Ip, ME (2025). *Introduction to Occupational Health and Safety (K3)* . CV Rey Media Grafika
- Zein, MHM (2023). *Bureaucratic Reform : The World of Bureaucracy and Government* . Sada Kurnia Pustaka

Journal

- Wau, F.T., Kiton, M.A., Wau, M., & Fau, J.F. (2024). Analysis Strategic Policy Mineral Downstreaming : Economic Implications and Impacts To Indonesian Economy . *Journal Publicuho* , 7(3), 1215-1224
- Cantika , DA, & Sofyan, M. (2024). Implementation Occupational Safety and Health: A Case Study at PT Mega Cipta Bangsa. *Journal of Economics, Management , Business , and Social Affairs (Embiss)* , 4 (3), 237-246
- Hendri, H. (2024). Legal Protection of Occupational Safety and Health Based on Law No. 1 of 1970. *Prima Legal Science (Ihp)* , 7 (2), 203-211

Website :

- Kompas.com. (2025, February 1). Explosion , Accident , and Fatalities at PT IMIP: Here's the Chronology Series Events in Morowali . <https://regional.kompas.com/read/2025/02/01/>