

Green Human Resource Management Implementation at PT United Tractors Tbk for Corporate Sustainability

Muhammad Robeth Turinza^{1*}, Endah Kurniawati², Zaenul Muttaqien³

^{1,2,3}Universitas Islam Kediri, Indonesia

muhammadrobethturinza@student.uniska-kediri.ac.id^{1*}, endahkurniawati@uniska-kediri.ac.id²,
zaenulmuttaqien@uniska-kediri.ac.id³

Abstract

Green Human Resource Management (GHRM) has drawn growing attention in heavy equipment and mining services as environmental pressures and stakeholder expectations intensify. This study examines how GHRM is represented in PT United Tractors Tbk's sustainability reports for 2023–2025. A descriptive qualitative document analysis classified selected Global Reporting Initiative employment-related disclosures into five dimensions: recruitment and selection, training and development, performance management, compensation and rewards, and employee involvement, with stakeholder theory guiding the interpretation. The findings reveal an uneven distribution of environmental evidence across the five dimensions. Sustainability-linked leadership performance indicators and conservation programs provide the clearest environmental connections, whereas recruitment, training, and compensation disclosures mainly document general human resource practices that supply organizational context without establishing green competencies, environmental selection criteria, or employee-level green incentives. The study concludes that reported GHRM practices show varying degrees of environmental integration, with limited evidence of employee-level environmental implementation across several HR dimensions. This study is limited to a single company's sustainability reports from 2023–2025, restricting the generalizability of the findings and preventing direct verification of employee behavior and actual environmental outcomes. This study contributes a context-specific account of the distance between reported human resource practices and demonstrable environmental contribution and points to explicit employee-level indicators and primary research as the means to assess behavioral change and environmental outcomes.

Keywords: Employee Involvement, Green Human Resource Management, Heavy Equipment And Mining Services, Sustainability Reporting, Stakeholder Theory

1. INTRODUCTION

Environmental sustainability increasingly shapes corporate strategy, resource allocation, and stakeholder relationships. Research on green collaboration shows how environmental priorities intersect with business performance by [Darmawan, Radianto, Kaihatu, and Utami \(2025\)](#), and international governance agendas place sustainability among the responsibilities of organizations ([Fallah, Mohabbati-Kalejahi, Alavi, & Zahed, 2022](#)). For companies in heavy equipment and mining services, these expectations raise a practical question how are environmental commitments translated into the everyday management of employees? Green Human Resource Management (GHRM) addresses this question by integrating environmental considerations into recruitment, training, performance appraisal, compensation, and employee involvement ([Renwick, Redman, & Maguire, 2013](#)). Its relevance extends beyond the adoption of cleaner technology, because environmental priorities matter in practice only when employees have the capabilities, motivation, and opportunities to apply them, and human resource practices form a key part of that process ([Gazi, Dhali, Masud, Ahmed, Amin, Chaity, Senathirajah, & Abdullah, 2024](#); [Hameed, Mahmood, & Shoaib, 2022](#)).

Studies connect GHRM with green innovation culture as a condition for organizational green performance [Muisyo and Qin \(2021\)](#), with the joint influence of leadership, organizational culture, and human resource practices [Al-Swidi, Gelaidan, and Saleh \(2021\)](#), with environmental and employee performance as pathways to organizational sustainability [Amjad, Abbas, Zia-UR-Rehman, Baig, Hashim, Khan, and Rehman \(2021\)](#), and with green competencies as a bridge between training and organizational efficiency ([Gull & Idrees, 2022](#)). Most of this evidence comes from survey-based research on the relationships between practices and outcomes, while the disclosures through which companies themselves present their green human resource practices remain comparatively underexamined.

Stakeholder theory frames the analysis, directing attention to the relationships through which organizations create value for employees, communities, and investors [Freeman \(2010\)](#), and connects employee management with organizational responsibility for environmental and social outcomes ([Ahmad, Hossain, Mustafa, Ejaz, Khawaja, & Dunay, 2023](#); [Khaskhely, Qazi, Khan, Hashmi, & Chang, 2022](#)). Because this study reads sustainability reports, published disclosures must also be distinguished from independently established performance, a caution that research on greenwashing underlines for company-produced documents ([Torelli, Balluchi, & Lazzini, 2020](#)). PT United Tractors Tbk, a member of the Astra Group that operates in heavy equipment and mining services, provides context for examining these relationships. The company's ten 2030 sustainability aspirations and its 2060 net-zero emissions target provide its human resource practices with a clear strategic direction, while reviews of GHRM research indicate that context-specific examinations of corporate disclosures remain scarce ([Chowdhury, Sakib, Sanju, Sabah, Chowdhury, & Rahman, 2025](#); [Faisal, 2023](#); [Ahmad et al., 2023](#)). Therefore, this study examines how GHRM is represented in PT United Tractors Tbk sustainability reports for 2023–2025. This study examines five GHRM dimensions using selected Global Reporting Initiative (GRI) employment-related disclosures as an accountability framework and stakeholder theory as a basis for interpretation.

2. LITERATURE REVIEW

GHRM has developed as an approach that integrates environmental considerations into human resource management practices, including recruitment and selection, training and development, performance management, compensation and rewards, and employee involvement ([Renwick et al., 2013](#)). More recent reviews have continued to conceptualize GHRM as a multidimensional organizational approach that connects human resource practices with environmental sustainability and organizational performance ([Faisal, 2023](#); [Chowdhury et al., 2025](#)). From this perspective, employees are not only recipients of organizational policies but also important actors in translating environmental objectives into daily workplace practices.

The relationship between GHRM and environmental performance has been examined in several organizational contexts, and the studies converge on one point, the environmental contribution of human resource management depends on the conditions surrounding the practices and not on the practices alone. [Al-Swidi et al. \(2021\)](#) and [Amjad et al. \(2021\)](#) both treat GHRM as part of a wider configuration, although they follow different routes to reach that conclusion. The former shows that leadership and organizational culture act jointly with GHRM in shaping employees' green behavior and organizational environmental performance, whereas the latter identifies environmental and employee performance as mediating pathways through which GHRM practices support organizational sustainability. [Muisyo and Qin \(2021\)](#) added a boundary condition: the effect of GHRM on organizational green performance is stronger where a green innovation culture has taken root. Collectively, these findings caution against treating any single practice as green by default and raise the question of how much environmental content each practice actually carries.

Studies on green recruitment and selection show the same pattern at the point of entry. [Pham and Paillé \(2019\)](#) document how organizations deliberately embed environmental criteria in recruitment and selection, while [Koman et al. \(2024\)](#) place recruitment within the broader agenda of sustainable human resource management. The two studies differ in scope, however, both examine organizations that pursue such criteria intentionally. This makes the boundary of green recruitment easy to blur in practice. Hiring from local communities, as companies in extractive sectors commonly report, serves social inclusion rather than environmental selection, and the two should not be conflated when interpreting corporate disclosures.

The literature on training and development points in a consistent direction, even though individual studies emphasize different mechanisms. [Gull and Idrees \(2022\)](#) locate the value of green training in the green competencies it builds, which mediate the link between training and organizational efficiency, while [Baykal and Bayraktar \(2022\)](#) shift attention to work engagement as an outcome of green human resource management. In the Indonesian setting, [Nugroho et al. \(2023\)](#) tie green value to the combination of green behavior training, green competence, and affective

commitment. Compared across these studies, training infrastructure appears as a necessary but insufficient condition: what matters environmentally is the content of the training and the competencies employees acquire.

For performance management, the available evidence suggests that appraisal becomes green only when environmental expectations are written into evaluation. [Al-Swidi et al. \(2021\)](#) treat appraisal-related practices as elements of a wider leadership and cultural configuration, whereas [Mustafa et al. \(2023\)](#) isolate GHRM practices as a driver of green competitive advantage. This contrast is instructive. Performance systems can be comprehensive in coverage yet remain silent on environmental criteria, so breadth of appraisal cannot substitute for explicit green objectives.

Compensation and rewards have received less direct attention, and studies that touch on them approach motivation from different angles. [Farooq et al. \(2022\)](#) showed that GHRM and employee self-efficacy support green creativity in luxury hotels, while [Ahmad et al. \(2023\)](#) found that green HRM practices and knowledge sharing improve environmental performance through employees' commitment to the environment. Neither study examines reward schemes as such, which leaves a practical question open, corporate awards and general remuneration reveal little about whether identifiable environmental criteria guide employee incentives.

Research on employee involvement asks when formal participation mechanisms become environmentally important. [Zhu et al. \(2021\)](#) emphasized internalization, showing that environmental beliefs and green organizational identity affect GHRM on employees green behavior. [Tuan \(2022\)](#) emphasized the organizational setting, linking employee green behavior to GHRM practices exercised through responsible leadership. The two perspectives agree on a point that matters for documentary research: participation becomes meaningful only when employees see their environmental actions as connected to organizational objectives.

A further group of studies situates GHRM within broader organizational capabilities, and the diversity of the outcomes examined is itself telling. [Hameed et al. \(2022\)](#) connect green HR practices with green corporate social responsibility, [Gazi et al. \(2024\)](#) route GHRM to sustainable social and environmental performance through organizational agility and green culture, [Khaskhely et al. \(2022\)](#) pair GHRM with dynamic sustainable capabilities in the manufacturing sector, and [Setyaningrum and Muafi \(2023\)](#) trace business performance through green product innovation and environmental commitment in Indonesian firms. What unites these otherwise different studies is the conclusion that GHRM operates as part of a wider system rather than as a set of isolated practices.

Stakeholder theory provides a complementary perspective for understanding why employee management is relevant to corporate sustainability. [Freeman \(2010\)](#) emphasized the importance of organizational relationships with employees, communities, investors, and other stakeholders. In the context of sustainability, organizations are expected to consider the interests and effects of their activities on multiple stakeholders. [Ahmad et al. \(2023\)](#) and [Khaskhely et al. \(2022\)](#) provide empirical perspectives on how GHRM contributes to environmental and organizational outcomes, respectively. Consequently, sustainability reporting can be examined as an organizational mechanism for communicating how sustainability commitments are linked to management practices.

Corporate sustainability reporting is particularly relevant when GHRM is examined using documentary analysis. The Global Reporting Initiative provides standardized reporting indicators concerning employment, occupational health and safety, training and education, and diversity and equal opportunities. These indicators can organize documentary evidence concerning human resource practices, although they should not be automatically interpreted as validated measures of GHRM effectiveness. [Torelli et al. \(2020\)](#) emphasized the importance of distinguishing environmental communication from demonstrated environmental performance when interpreting organizational sustainability disclosures.

Previous studies have examined GHRM across various sectors and organizational settings. However, context-specific documentary evidence concerning how GHRM dimensions are represented in sustainability reports of companies operating in Indonesia's heavy equipment and mining services sector remains relatively limited. Existing studies predominantly examine the relationships between GHRM and organizational outcomes such as green behavior, environmental performance, green innovation, employee commitment, and competitive advantage ([Al-Swidi et al., 2021](#); [Amjad et al., 2021](#); [Muisyo & Qin, 2021](#); [Ahmad et al., 2023](#)). Less attention has been given to distinguishing between general human resource disclosures and disclosures that provide explicit evidence of environmental integration within each GHRM dimension.

This gap makes PT United Tractors Tbk a relevant case study. The company operates in heavy equipment and mining services, reports ten 2030 sustainability aspirations together with a long-term net-zero emissions target, and publishes annual sustainability reports in which those commitments are expected to become visible in human resource practices. This study examines how GHRM is represented in the company's sustainability reports for 2023–2025 across five dimensions, such as green recruitment and selection, green training and development, green performance management, green compensation and rewards, and green employee involvement. Its contribution goes beyond adding a single company case. By combining selected GRI employment-related disclosures with stakeholder theory, this study offers a way to separate general human resource disclosures from those carrying explicit environmental content within each GHRM dimension and shows how sustainability reports can be read as evidence of GHRM rather than as a measure of its effectiveness. The distinction between the existence of human resource practices and evidence of their environmental contribution runs throughout the entire analysis.

3. RESEARCH METHODOLOGY

3.1 Research Design and Documentary Sources

The study adopted a descriptive qualitative design based on document analysis. The purpose was to interpret the representation of GHRM in official corporate disclosures, rather than estimate causal effects or test statistical hypotheses. Qualitative inquiry supports this contextual interpretation of organizational evidence ([Creswell, & Poth, 2018](#); [Sugiyono, 2017](#)). Broader methodological discussions also emphasize the importance of selecting a design that matches the research purpose [Waruwu \(2024\)](#), while the literature review supports the positioning and interpretation of documentary findings ([Ridwan, AM, Ulum, & Muhammad, 2021](#)).

The documentary corpus comprised PT United Tractors Tbk sustainability reports covering 2023, 2024, and 2025. These reports were treated as primary documents for the analysis, while the information they contain remains company-reported evidence. The three-year period enabled a comparison of recurring practices and reported developments. Books, journal articles, and institutional publications already included in the source manuscript supplied the theoretical and methodological context. Prior GHRM research informed the interpretation of sustainable business practices and employee engagement, including an Indonesian organizational application ([Palupiningtyas, 2024](#); [Utama, 2022](#)).

The selection of documents followed explicit criteria as follows. The three most recent sustainability reports were included because they constitute the company's official account of its employment practices, and consecutive reporting years make it possible to separate recurring practices from one-off events. Within each report, sections were considered relevant when they addressed employees, employment conditions, occupational health and safety, training, diversity, remuneration, or community-based environmental programs. Relevant passages were identified through repeated readings of each report, supported by keyword searches for terms such as green, environment, sustainability, employee, training, recruitment, and reward. Each passage was then assigned to one of the five GHRM dimensions, and materials without a clear employment or environmental dimension were retained only as context.

3.2 Analytical Framework and Procedure

The analysis focused on sections addressing employee management and environmental issues. The selected disclosures covered GRI 401, employment, GRI 403, occupational health and safety, GRI 404, training and education, and GRI 405, diversity and equal opportunity. These standards organized the reporting evidence but were not treated as a validated GHRM measurement scale. In particular, general employment, training, diversity, and safety disclosures were interpreted based on whether an explicit environmental connection was described. Qualitative content analysis was used to organize the documents into five predetermined themes: green recruitment and selection, green training and development, green performance management, green compensation and rewards, and green employee involvement ([Mayring, 2021](#)). The thematic framework was drawn from the established GHRM literature ([Khaskhely et al., 2022](#); [Renwick et al., 2013](#); [Setyaningrum & Muafi, 2023](#)). Stakeholder theory guided the interpretation of how these practices address the interests of employees, local communities, management, and other stakeholders ([Freeman, 2010](#)).

The consistency of coding was maintained through a written protocol. Each dimension was defined in advance based on the GHRM literature that informed the thematic framework, so that classification rested on stated criteria rather than on impression. Passages were reread against these definitions in the second cycle, and classifications that could not be justified by the text were reconsidered until the assignment was defensible. Comparable disclosures across the three reporting years were checked against one another to confirm that similar statements were treated in the same way, and excerpts of the coded passages were retained so that every classification remained traceable to its source.

The analytical procedure followed the three broad activities of data reduction, data display, and conclusion drawing ([Miles et al., 2014](#)). Relevant passages and indicators were selected, organized by GHRM dimension, and summarized in a comparative table. The findings were then interpreted alongside the existing literature on environmental stewardship, performance, competencies, and employee green behavior ([Ahmed et al., 2021](#); [Al-Swidi et al., 2021](#); [Gull & Idrees, 2022](#); [Muisyo & Qin, 2021](#); [Zhu et al., 2021](#)). The analysis did not include employee interviews, surveys, or workplace observations. Accordingly, its conclusions concern the content and implications of the reported practices, rather than verified changes in employee behavior or environmental outcomes.

4. RESULTS AND DISCUSSION

The documentary analysis identified practices relevant to all five GHRM dimensions, although the strength of the environmental connection varied. Training coverage and performance appraisal are documented through broad employee indicators, whereas sustainability-related leadership targets and conservation activities provide more explicit environmental connections. Table 1 summarizes the reported practices and distinctions necessary for their interpretation.

Table 1. Reported GHRM practices and their interpretation for 2023–2025

GHRM dimension	Reporting reference	Reported practice	Interpretation
Recruitment and selection	GRI 401-1, local management disclosure	New hires: 2,536 (2023), 2,644 (2024), 1,687 (2025). Local community members: 1.5% of senior management in 2025.	Local employment supports social inclusion, however, environmental selection criteria were not explicit.
Training and development	GRI 404-1, 404-2	UTSMART: 2,207 modules. Annual participation was 100%. Average hours: 70 (2023), 63 (2024), 68 (2025). ALDP Leadership Development.	Extensive learning infrastructure, environmental module coverage, and behavioral outcomes were not specified.

GHRM dimension	Reporting reference	Reported practice	Interpretation
Performance management	GRI 404-3, leadership KPI disclosure	Appraisal: 100% coverage, thrice annually. Sustainability Aspirations are integrated into directors' KPIs. Promotion preparation: 1,006 individuals by 2025.	The explicit strategic sustainability link and cascading environmental targets to employees were not clear.
Compensation and rewards	GRI 405-1, 405-2, remuneration disclosure	Leadership remuneration is linked to corporate performance, including sustainability. Diversity and pay equity disclosure. ENSIA and Subroto recognition.	Pay equity and corporate awards differ from employee green incentives, and the operational reward criteria were not explicit.
Employee involvement	GRI 403-4, 403-5, conservation disclosures	UTREES, customary forest conservation, mangrove rehabilitation, and flora and fauna programs are also included. Two-way safety communication and training.	Environmental activities offer participation opportunities, and employee contributions and attributable outcomes were not quantified.

4.1 Green Recruitment and Selection

The reports recorded 2,536 new employees in 2023, 2,644 in 2024, and 1,687 in 2025. The analysis also identifies a continuing emphasis on recruitment from communities around operational areas and reports that local community members held 1.5% of senior management positions in 2025. These figures describe workforce entry and local representation. However, they do not, on their own, establish that environmental knowledge or values were criteria in recruitment decisions.

From a stakeholder perspective, local recruitment can support the distribution of employment opportunities to communities affected by company operations ([Freeman, 2010](#)). The literature on environmental stewardship provides a complementary rationale for connecting employee management with environmental responsibility ([Ahmed et al., 2021](#)). Green recruitment, however, requires an explicit connection between selection practices and environmental expectations, as discussed in research on green recruitment patterns ([Pham & Paillé, 2019](#)). This distinction matters because local recruitment represents social sustainability, while its contribution to environmental objectives depends on additional practices and evidence.

However, these reports did not explicitly connect recruitment profiles with subsequent participation in environmental programs. Sustainable recruitment research provides a basis for examining recruitment as part of a broader organizational process ([Koman et al., 2024](#)). For this case, the relevant next step is to document the environmental selection criteria, onboarding content, and later employee participation. Such evidence would clarify whether the reported recruitment practices function as green recruitment mechanisms.

4.2 Green Training and Development

The reports indicate that the United Tractors SMART (UTSMART) platform contained 2,207 learning modules and that employee training participation reached 100% in each year examined. Average training hours per employee were 70 in 2023, 63 in 2024, and 68 in 2025. The Astra Leadership Development Program (ALDP) supported leadership development. These indicators show extensive training provision and participation, providing an organizational infrastructure through which environmental learning can be delivered.

Research on green training highlights green competencies as an important pathway linking learning activities with organizational efficiency ([Gull & Idrees, 2022](#)). Research on GHRM and work

engagement also provides a basis for considering how employee development can support broader organizational involvement ([Baykal & Bayraktar, 2022](#)). In the United Tractors case, the digital learning platform offers a means of delivering training across operational locations. Its environmental significance depends on the content of the modules and the competencies employees acquire.

The reports did not specify the proportion of modules devoted to environmental topics or distinguish their outcomes from those of technical and leadership training. Full participation in general training can not, therefore, be equated with full participation in green training. The relationship between green behavior training, competence, and commitment examined in earlier research suggests useful evaluation dimensions ([Nugroho et al., 2023](#)). Assessing topic-specific participation, demonstrated environmental competencies, and subsequent workplace practices would strengthen the interpretation of this dimension.

4.3 Green Performance Management

Performance appraisal covered 100% of employees and was conducted at three points in the year, such as the initial preparation of the individual performance plan, a mid-year review, and a year-end assessment. The analysis further indicates that a talent development program prepared 1,006 individuals for promotion in 2025. These practices demonstrate the breadth and regularity of appraisal systems, although appraisal coverage alone does not establish the inclusion of environmental criteria.

The more explicit sustainability connection was the integration of the ten 2030 sustainability aspirations into the board of Directors' Key Performance Indicators (KPIs). This arrangement places sustainability under formal leadership accountability. Studies on GHRM, leadership, and organizational culture help explain why such alignment is relevant to environmental management ([Al-Swidi et al., 2021](#)). The available documentary evidence supports an interpretation of strategic integration but does not show how much this arrangement contributed to changes in emissions or renewable energy use.

However, the reports did not clearly describe how environmental KPIs were translated into responsibilities for middle managers and operational employees. Research on GHRM and green competitive advantage provides a rationale for examining this connection across organizational levels ([Mustafa et al., 2023](#)). The practical implication is to make the relationship between corporate aspirations, unit-level targets, and individual appraisal criteria more visible to employees. This would allow performance management to be evaluated as an environmental management mechanism, rather than primarily as a comprehensive appraisal system.

4.4 Green Compensation and Rewards

The documentary analysis describes the remuneration procedures for directors and commissioners as linked to corporate performance, including progress toward the 2030 sustainability aspirations. It also reports disclosures on employee composition and gender-based remuneration ratios under GRI 405-1 and GRI 405-2. The former provides a potential connection between incentives and sustainability, and the latter addresses diversity and pay equity. These are related elements of sustainability governance but capture different aspects of employee management.

The company also received recognition through the Environmental and Social Innovation Awards (ENSIA) and the Subroto Award during the examined period. These awards represent external recognition of organizational initiatives. They should be distinguished from compensation or rewards received by individual employees. Research on green innovation culture and green creativity offers a useful context for considering the motivational conditions surrounding environmental initiatives ([Farooq et al., 2022](#); [Muisyo & Qin, 2021](#)), but the presence of corporate awards does not establish the operation of an internal green reward system.

The disclosures did not clearly identify a reward scheme for non-managerial employees' environmental contributions, such as unit-level energy savings or waste reduction initiatives. A more explicit account of eligibility, assessment criteria, and forms of recognition would clarify this

dimension. The relationship between GHRM, self-efficacy, and green creativity examined in prior research is relevant for developing employee-centered mechanisms ([Farooq et al., 2022](#)). For United Tractors, the documentary findings suggest the value of connecting sustainability incentives more visibly to employees' daily contributions.

4.5 Green Employee Involvement

Employee involvement was described through the United Tractors for Nature and Environment Sustainability (UTREES) program and associated with conservation activities. The reports describe conservation covering 5,000 hectares of customary forest, mangrove rehabilitation in Pantai Indah Kapuk and Aek Pahu, and flora and fauna conservation in the operational areas. These activities provide a more explicit environmental connection than general employment indicators do. Nevertheless, the documents do not isolate employees' individual contributions or independently measure the ecological effects attributable to their participation.

The company also reported two-way occupational health and safety communication under GRI 403-4 and routine safety training under GRI 403-5. Such mechanisms provide channels for employees, including field personnel, to raise their operational concerns. Their relevance to green involvement depends on whether environmental issues are included and whether employee suggestions lead to identifiable actions in the company. Research linking GHRM with environmental beliefs and organizational identity supports the examination of the conditions under which formal mechanisms become meaningful ([Zhu et al., 2021](#)).

The literature on employee green behavior and responsible leadership emphasizes the importance of the organizational setting in which involvement occurs ([Tuan, 2022](#)). In this case, conservation programs and communication channels offer a basis for employee participation, whereas participation rates, the disposition of employee proposals, and project-level outcomes remain useful areas for further documentation. Reported improvements in emissions and renewable energy use cannot be attributed solely to employee involvement through this documentary design.

4.6 Synthesis and Practical Implications

Viewed side by side, the five dimensions differ considerably in how directly their evidence speaks to the environment. Performance management and employee involvement occupy the strongest position: the integration of the ten 2030 sustainability aspirations into the board of directors' key performance indicators ties a formal appraisal instrument to explicit sustainability targets, while the conservation programs are described with enough specificity in area, location, and activity type to count as concrete environmental commitments. Training occupies an intermediate position. Its infrastructure is documented in detail, yet nothing in the reports indicates what share of that provision is environmental in content, thus, the dimension is strong in organization but silent in substance. Recruitment and compensation form the weakest tier in documentary terms, since their disclosures concern social inclusion, pay equity, and external recognition rather than environmental criteria or incentives.

This gradient has an interpretation that is worth making explicit. The environmental integration that the documents support begins at the strategic and community levels and thins out as it moves toward individual employees. It is easiest to see in what the board is accountable for and in what company programs do, and hardest to see in what any particular employee is selected for, taught, or rewarded for. Read this way, the pattern does not indicate an absence of green human resource management, but it does indicate that its environmental content has not yet been made traceable to individual practices. These differences describe the strength and specificity of disclosure rather than a validated ranking of implementation maturity, a caution that applies to any comparison drawn from company-produced reports.

This study positions GHRM as a potential link between corporate sustainability commitments and employee management. This interpretation is consistent with reviews that describe GHRM as a set of related organizational practices ([Chowdhury et al., 2025](#); [Faisal, 2023](#)). The contribution of this

case lies in identifying where general human resource disclosures become explicitly environmental and where that connection still requires evidence. Standardized reporting helps organize this assessment, while research on environmental communication reinforces the need to distinguish disclosure from demonstrated performance ([Torelli et al., 2020](#)).

For management, the priority is to connect existing systems to more specific environmental indicators. Recruitment can document environmental criteria and onboarding, training can distinguish environmental content and assess learning transfer, appraisal can connect corporate aspirations with employee responsibilities, rewards can recognize identifiable environmental contributions, and involvement programs can report participation and follow up. Together, these steps would make the contribution of employee management to sustainability more transparent, without assuming that program coverage alone demonstrates effectiveness.

5. CONCLUSIONS

5.1 Conclusion

The analysis of PT United Tractors Tbk sustainability reports for 2023–2025 identified practices relevant to all five dimensions of green human resource management, from recruitment and training to performance management, compensation, and employee involvement. The clearest environmental connections appeared where sustainability was anchored in formal accountability, the ten 2030 sustainability aspirations integrated into the board of directors' key performance indicators and conservation activities that opened space for employee participation. The company's extensive training and appraisal systems demonstrated substantial organizational capacity, although the environmental components of these systems were not explicitly reported.

The findings underline the difference between general human resource practices and specifically green ones. Local recruitment, broad training participation, diversity and remuneration disclosures, and corporate awards provide relevant social sustainability information, yet they do not by themselves establish environmental selection criteria, green training outcomes, or employee-level green incentives. Therefore, this study contributes a context-specific account of how GHRM is represented in sustainability reporting in Indonesia heavy equipment and mining services sector, and of how far reported practices are from demonstrable environmental integration at the level of individual employees.

5.2 Research Limitations

This study had several limitations. First, the analysis was based exclusively on PT United Tractors Tbk's sustainability reports for 2023–2025. Therefore, the findings represent company-reported information and cannot independently verify the implementation or effectiveness of reported practices. Second, the documentary analysis did not involve employee interviews, surveys, workplace observations, or other primary data collection. Consequently, the study could not determine whether reported GHRM practices resulted in changes in employee environmental behavior, green competencies, environmental commitment, or measurable ecological outcomes. Third, the selected GRI disclosures were used as an accountability framework for organizing documentary evidence rather than as a validated GHRM measurement scale. Some disclosures, such as general training participation, local employment, occupational safety, and diversity, may be relevant to human resource management but do not necessarily demonstrate explicit environmental integration.

5.3 Suggestions and Directions for Future Research

Future research should complement sustainability report analysis with primary data from employees, managers, and other relevant stakeholders. Interviews and employee surveys could be used to examine whether environmental criteria are incorporated into recruitment, training, performance appraisal, compensation, and employee involvement practices. Future studies should also develop more specific indicators for evaluating green competencies, green employee behavior, employee-level environmental incentives, and the implementation of environmental performance targets at the organizational level. In particular, research could examine whether corporate

sustainability targets are translated into measurable responsibilities for middle managers and for operational employees.

Comparative studies involving other companies in the heavy equipment, mining, and related industrial sectors would also be useful for identifying similarities and differences in GHRM implementation and sustainability disclosure. Longitudinal research could further examine whether changes in GHRM practices are associated with measurable changes in employee environmental behavior, energy use, waste reduction, emissions, or other environmental outcomes. Such approaches would extend the present documentary analysis from reported implementation toward a more comprehensive assessment of the relationship between GHRM practices and sustainability outcomes.

ACKNOWLEDGEMENT

The authors would like to express their sincere gratitude to Universitas Islam Kadiri for its academic support throughout the research process. The authors also acknowledge PT United Tractors Tbk for making its sustainability reports publicly available, which served as the primary documentary sources for this study. Appreciation is extended to all parties who contributed to the completion of this research through academic guidance and constructive feedback.

AUTHOR CONTRIBUTIONS

MRT contributed to conceptualization, research design, data collection, documentary analysis, data interpretation, and original draft preparation. EK was responsible for research supervision, methodology development, theoretical framework validation, interpretation of findings, and critical manuscript review. ZM contributed to methodological validation, literature review, data analysis verification, discussion development, and manuscript refinement. All authors participated in reviewing and finalizing the manuscript, approved the final version for publication, and agreed to be accountable for the accuracy and integrity of the research.

REFERENCES

- Ahmad, F., Hossain, M. B., Mustafa, K., Ejaz, F., Khawaja, K. F., & Dunay, A. (2023). Green HRM practices and knowledge sharing improve environmental performance by raising employee commitment to the environment. *Sustainability*, 15(6), 5040. <https://doi.org/10.3390/su15065040>
- Ahmed, U., Umrani, W. A., Yousaf, A., Siddiqui, M. A., & Pahi, M. H. (2021). Developing faithful stewardship for environment through green HRM. *International Journal of Contemporary Hospitality Management*, 33(10), 3115-3133. <https://doi.org/10.1108/IJCHM-09-2020-1066>
- Al-Swidi, A. K., Gelaidan, H. M., & Saleh, R. M. (2021). The joint impact of green human resource management, leadership and organizational culture on employees' green behaviour and organisational environmental performance. *Journal of Cleaner Production*, 316, 128112. <https://doi.org/10.1016/j.jclepro.2021.128112>
- Amjad, F., Abbas, W., Zia-UR-Rehman, M., Baig, S. A., Hashim, M., Khan, A., & Rehman, H. (2021). Effect of green human resource management practices on organizational sustainability: The mediating role of environmental and employee performance. *Environmental Science and Pollution Research*, 28(22), 28191-28206. <https://doi.org/10.1007/s11356-020-11307-9>
- Baykal, E., & Bayraktar, O. (2022). Green human resources management: A novel tool to boost work engagement. *Frontiers in Psychology*, 13, 951963. <https://doi.org/10.3389/fpsyg.2022.951963>
- Chowdhury, S. R., Sakib, Md. N., Sanju, N. L., Sabah, S., Chowdhury, F., & Rahman, Md. M. (2025). Aspects and practices of green human resource management: A review of literature exploring future research direction. *Future Business Journal*, 11(1), 147. <https://doi.org/10.1186/s43093-025-00567-x>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed). SAGE Publications.
- Darmawan, E., Radianto, W. E. D., Kaihatu, T. S., & Utami, C. W. (2025). Revealing the importance of green collaboration in green innovation: Entrepreneurial marketing perspective. *Jurnal Manajemen dan Kewirausahaan*, 27(1), 1-10. <https://doi.org/10.9744/jmk.27.1.1-10>

- Faisal, S. (2023). Green human resource management: A synthesis. *Sustainability*, 15(3), 2259. <https://doi.org/10.3390/su15032259>
- Fallah Shayan, N., Mohabbati-Kalejahi, N., Alavi, S., & Zahed, M. A. (2022). Sustainable Development Goals (SDGs) as a framework for Corporate Social Responsibility (CSR). *Sustainability*, 14(3), 1222. <https://doi.org/10.3390/su14031222>
- Farooq, R., Zhang, Z., Talwar, S., & Dhir, A. (2022). Do green human resource management and self-efficacy facilitate green creativity? A study of luxury hotels and resorts. *Journal of Sustainable Tourism*, 30(4), 824-845. <https://doi.org/10.1080/09669582.2021.1891239>
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge University Press.
- Gazi, Md. A. I., Dhali, S., Masud, A., Ahmed, A., Amin, M., Chaity, N. S., Senathirajah, A. R. bin S., & Abdullah, M. (2024). Leveraging green HRM to foster organizational agility and green culture: Pathways to enhanced sustainable social and environmental performance. *Sustainability*, 16(20), 8751. <https://doi.org/10.3390/su16208751>
- Gull, S., & Idrees, H. (2022). Green training and organizational efficiency: Mediating role of green competencies. *European Journal of Training and Development*, 46(1), 105–119. <https://doi.org/10.1108/EJTD-10-2020-0147>
- Hameed, R., Mahmood, A., & Shoaib, M. (2022). The role of green human resource practices in fostering green corporate social responsibility. *Frontiers in Psychology*, 13, 792343. <https://doi.org/10.3389/fpsyg.2022.792343>
- Khaskhely, M. K., Qazi, S. W., Khan, N. R., Hashmi, T., & Chang, A. A. R. (2022). Understanding the impact of green human resource management practices and dynamic sustainable capabilities on corporate sustainable performance: Evidence from the manufacturing sector. *Frontiers in Psychology*, 13, 844488. <https://doi.org/10.3389/fpsyg.2022.844488>
- Koman, G., Borošoš, P., & Kubina, M. (2024). Sustainable human resource management with a focus on corporate employee recruitment. *Sustainability*, 16(14), 6059. <https://doi.org/10.3390/su16146059>
- Mayring, P. (2021). *Qualitative content analysis: A step-by-step guide*. SAGE Publications.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (4th ed). SAGE Publications.
- Muisyo, P. K., & Qin, S. (2021). Enhancing the firm's green performance through green HRM: The moderating role of green innovation culture. *Journal of Cleaner Production*, 289, 125720. <https://doi.org/10.1016/j.jclepro.2020.125720>
- Nugroho, M., Cahyono, B., & Gunawan, R. H. (2023). Model of green human resources behavior based on green behavior training, green competence, and affective commitment on green value. *Global Review of Islamic Economics and Business*, 10(1). <https://doi.org/10.14421/grieb.2022.101-09>
- Palupiningtyas, D. (2024). Green HRM: Strategies for sustainable business practices and employee engagement. *Management Studies and Business Journal (PRODUCTIVITY)*, 1(3), 386-401. <https://doi.org/10.62207/dhfpj238>
- Pham, D. D. T., & Paillé, P. (2019). Green recruitment and selection: An insight into green patterns. *International Journal of Manpower*, 41(3), 258-272. <https://doi.org/10.1108/IJM-05-2018-0155>
- Renwick, D. W. S., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- Ridwan, M., AM, S., Ulum, B., & Muhammad, F. (2021). Pentingnya penerapan literature review pada penelitian ilmiah. *Jurnal Masohi*, 2(1), 42. <https://doi.org/10.36339/jmas.v2i1.427>
- Setyaningrum, R. P., & Muafi, M. (2023). Green human resources management on business performance: The mediating role of green product innovation and environmental commitment. *International Journal of Sustainable Development and Planning*, 18(1), 209-220. <https://doi.org/10.18280/ijstdp.180122>

- Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif dan R&D*. Alfabeta.
- Torelli, R., Balluchi, F., & Lazzini, A. (2020). Greenwashing and environmental communication: Effects on stakeholders' perceptions. *Business Strategy and the Environment*, 29(2), 407-421. <https://doi.org/10.1002/bse.2373>
- Tuan, L. T. (2022). Promoting employee green behavior in the Chinese and Vietnamese hospitality contexts: The roles of green human resource management practices and responsible leadership. *International Journal of Hospitality Management*, 105, 103253. <https://doi.org/10.1016/j.ijhm.2022.103253>
- Utama, E. P. M. A. S. (2022). Praktik green human resource management pada PT Bank Bengkulu. *Student Journal of Business and Management*, 5(3), 837-861.
- Waruwu, M. (2024). Metode penelitian dan pengembangan (R&D): Konsep, jenis, tahapan dan kelebihan. *Jurnal Ilmiah Profesi Pendidikan*, 9(2), 1220-1230. <https://doi.org/10.29303/jipp.v9i2.2141>
- Zhu, J., Tang, W., Wang, H., & Chen, Y. (2021). The influence of green human resource management on employee green behavior: A study on the mediating effect of environmental belief and green organizational identity. *Sustainability*, 13(8), 4544. <https://doi.org/10.3390/su13084544>