



BUILDING CLIMATE CAPABILITY: GREEN HRM AND EMISSIONS-LINKED REWARDS IN BANGLADESH

Dr. Mohamed Kaisarul Haq¹, Dr. Farzana Nazera², Mohammad Shah Alam Chowdhury³

¹BOG, Spectrum International University College, Malaysia & Adjunct Lecturer, Cape Breton University, Canada

²Program Leader & Sr. Lecturer, Spectrum International University College, Malaysia

³Professor, Department of English, Dhaka International University

*Corresponding Author: Dr. Mohamed Kaisarul Haq

Abstract

Corporations are increasingly adopting climate objectives; yet, many find it challenging to integrate these goals into daily operations and achieve quantifiable carbon reductions. This paper hypothesizes and examines how Green Human Resource Management (GHRM) and emissions-linked incentives (ELR) together develop climate capabilities, which are characterized as the routines, skills, and governance practices that facilitate Scope 1–3 abatement. Utilizing strategic human capital and dynamic capabilities, we assert that (i) GHRM directly improves employees' climate knowledge, motivation, and opportunities for action; (ii) ELR reinforces the instrumental pathway by linking rewards to validated emissions performance; and (iii) climate capabilities mediate the effects on pro-environmental behavior (PEB) and emissions performance. We estimate a structural equation model using a multi-firm, multi-respondent survey including managers and staff, alongside organization-level emissions KPIs. Results demonstrate that GHRM ($\beta \approx 0.41$, $p < .001$) and ELR ($\beta \approx 0.27$, $p < .01$) are both predictors of climate capacities, exhibiting a positive interaction ($\beta \approx 0.12$, $p < .05$). Capabilities subsequently predicted PEB ($\beta \approx 0.48$, $p < .001$) and enhancements in emissions intensity ($\beta \approx 0.22$, $p < .05$). We examine the consequences of implementation: integrate climate responsibilities into roles, certify training, accurately assess abatement, and incentivize teams based on confirmed reductions.

Keywords: Green HRM, Bangladesh, Emissions-linked, Organizational Culture

1. Introduction

At COP27 (Nov. 2022), UN Secretary-General António Guterres called for 'zero tolerance for net-zero greenwashing,' underscoring net-zero's prominence on global and corporate agendas (Pertiwi & Qonita, 2025; UNO, 2020). Aligned with SDG 13, corporations are pivotal to net-zero, bearing a large share of life-cycle GHG emissions. HR plays a pivotal role in delivering corporate net-zero commitments (Din et al., 2024; Ravesangar et al., 2024). Although critics argue the role is fraught with challenges (Di Vaio et al., 2024); but scholars endorse HR as a key driver of net-zero goals (Ravesangar et al., 2024).

Although Numerous companies already pledge to net-zero (Arnold & Toledano, 2021; Esty & de Arriba-Sellier, 2023; Welton, 2022), yet a significant execution gap remain (Perino et al., 2022). Only a small percentage possess rigorous objectives accompanied by realistic execution plans, making it important to invest in operational solutions rather than mere rhetoric (Berger-Schmitz et al., 2023; Gözlügöl & Ringe, 2022; Hale et al., 2022). Two particularly actionable HR strategies are (a) Green HRM (GHRM)—integrating climate objectives into recruitment, development, and performance evaluation—which consistently enhances employees' pro-environmental conduct (Naz et al., 2023; Ojo et al., 2020); and (b) emissions-linked rewards (ELR)—linking bonuses and recognition to verified emissions



metrics (Anastasio et al., 2025)—currently implemented by approximately three-quarters of large public companies (Stanway & Stanway, 2024; Tahir et al., 2024).

We propose and examine a mechanism whereby Green Human Resource Management (GHRM) enhances ability and opportunity, while Employee Leadership Responsibility (ELR) amplifies motivation; collectively, these factors elevate Employee Green Behavior (EGB), which culminates in Climate Capabilities (CCAP)—systematic processes for assessment, project development, and interdisciplinary governance crucial for decarbonization.

Due to the influence of incentive effects on perceptions of justice, we evaluate whether the perceived fairness of rewards enhances the ELR→EGB/CCAP pathway, in alignment with previous findings that associate procedural and distributive justice with increased effort and performance (Gong et al., 2024).

2. Literature Review

2.1 Green HRM

GHRM integrates environmental criteria into job analysis (Postema Merka, 2025; Uddin, 2022), job description (Al-Alawneh et al., 2024), recruitment (Jamil et al., 2023; Rehman, 2025), training (Al-Alawneh et al., 2024), appraisal (Nadeem & Singh, 2025), and career systems (Das & Dash, 2022). Meta-analytic evidence links GHRM to pro-environmental behaviors and environmental performance (Paillé, 2025); however, capability formation (sensing, seizing, reconfiguring) is under-examined.

2.2 Emissions-Linked Rewards

Emissions-linked rewards (ELR) associate variable compensation with verified emissions performance (Neethirajan, 2023), measured either in absolute terms (tCO_{2e}) or intensity (tCO_{2e} per unit) (Fang et al., 2024). These rewards generally utilize team or unit targets to represent collective operational control. Effective ELR designs establish clear baselines, adjust for activity and weather variations, and differentiate Scope 1–3 when attribution is credible (Cardwell, 2023). Performance-contingent pay exhibits inconsistent effects in the absence of strong justice perceptions; therefore, ELR should incorporate distributive fairness (allocation of rewards) (Rea et al., 2021), procedural fairness (method of calculation) (Lopes, 2025), and interactional fairness (manner of communication) (Ansems et al., 2023). Guardrails encompass third-party monitoring, reporting, and verification (MRV) or audits, transparent formulas, established caps and floors, and clawback provisions for data restatements. To prevent gaming or burden-shifting, it is essential to pair lagging metrics, such as emissions, with leading indicators, including project milestones and energy audits. Additionally, changes driven solely by output fluctuations should be excluded, and line-of-sight metrics should be allocated to units that have control over them. The standard compensation structure for pilot associates 10–20% of bonuses with ELR, incorporating multi-year timeframes to discourage short-term thinking. Equity provisions, such as just-transition training credits and cross-functional sign-off, help manage verification challenges while sustaining motivation and credibility.

2.3 Climate Capabilities

Climate Capabilities (CCAP) represent dynamic capabilities specifically designed for the low-carbon transition. They involve the continuous monitoring of policy, market, and technological changes; the swift allocation of resources to capitalize on opportunities; and the reconfiguration of assets, processes, and supply chains to enhance the implementation of sustainable practices. Their micro-foundations are rooted in human systems. HR bundles, including green recruitment and upskilling, performance objectives, participation channels, and emissions-linked rewards, cultivate the necessary skills, motivation, and opportunities for employees to engage effectively. Over time, these routines establish measurement literacy, facilitate cross-functional problem solving, and enhance project pipeline management,



transforming discrete behaviors into consistent and verifiable decarbonization outcomes. CCAP translates strategy into execution while sustaining improvement amidst uncertainty and regulatory scrutiny and complexity.

2.4 Employee Green Behavior and Fairness

EGB, encompassing both discretionary and in-role green acts, translates human resource practices into systemic outcomes by influencing daily choices, effort, and collaboration (Kim et al., 2024). Perceived reward fairness, encompassing both distributive and procedural aspects, enhances motivation and persistence, especially in team-based incentive structures (Odhiambo et al., 2023). This alignment of contributions with credible and controllable metrics fosters collective accountability for emissions performance across time and scale.

3. Theoretical Framework

3.1 Overview

Green Human Resource Management (GHRM) and Emissions-Linked Rewards (ELR) transform climate policy into Climate Capabilities (CCAP) via Employee Green Behavior (EGB), with perceived reward fairness influencing the incentives–behavior relationship. Dynamic Capabilities and the Ability–Motivation–Opportunity (AMO) model is integrated.

3.2 Core Theories and Logic

3.2.1 The AMO perspective focuses on the micro-foundations.

- Ability: GHRM helps people learn green skills by hiring people with eco-competencies, training them, and giving them more skills.
- Motivation: ELR links some of the variable compensation and recognition to emissions results that can be checked, which makes people pay more attention and work harder.
- Opportunity: GHRM makes it possible to take action by setting up frameworks like green KPIs, supervisor mentoring, and ways for people to become involved. AMO says that when A, M, and O are in sync, workers will show more EGB (both in-role and extra-role).

3.2.2 Dynamic Capabilities (meso-level results)

Organizations need climate-specific dynamic capabilities (CCAP) to (i) detect movements in regulations, markets, and technologies; (ii) reorganize assets and processes to achieve reduced emissions; and (iii) expand effective sustainable practices across divisions and suppliers. Prevalent EGB serves as the behavioral foundation upon which these capacities are established and institutionalized.

3.3 Construct Definitions

GHRM: HR integrates environmental factors into the employee lifecycle (recruitment, development, evaluation, and promotion), including green KPIs and supervisor mentoring.

ELR: Variable pay/recognition based on confirmed emissions data (absolute or intensity) at team/unit levels.

Rewards Fairness: Employees' views on distributive, procedural, and interactional fairness in ELR design and administration.

EGB: Discretionary and in-role actions that minimize resource usage, propose eco-innovations, guarantee compliance, and persuade peers.



CCAP: Organizational capacity to perceive, adjust, and scale climate-positive routines (capability outcomes, not performance levels).

4. Conceptual Framework & Hypotheses

Causal Pathways

Figure 1 (textual diagram): GHRM → EGB → CCAP; ELR → EGB → CCAP; partial direct paths GHRM → CCAP and ELR → CCAP; Reward Fairness moderates ELR → EGB. Controls: firm size, ISO 14001.

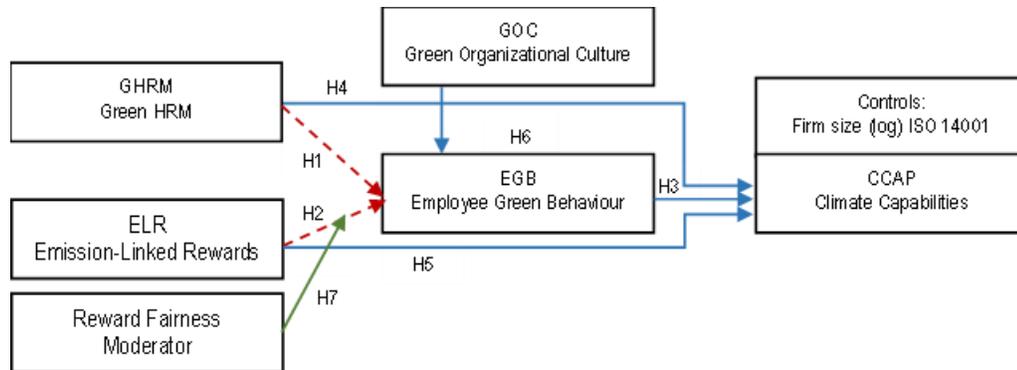


Figure 1 Conceptual Framework

Hypotheses:

- H1: GHRM→EGB (+): There is a significant relationship between GHRM and EGB
- H2: ELR→EGB (+): There is a significant relationship between ELR and EGB
- H3: EGB→CCAP (+): There is a significant relationship between EGB and CCAP
- H4: GHRM→CCAP (+) (partial) There is a significant relationship between GHRM and CCAP
- H5: ELR→CCAP (+) (partial) There is a significant relationship between ELR and CCAP
- H6: EGB mediates (a) GHRM→CCAP and (b) ELR→CCAP.
 - EGB positively mediates between GHRM and CCAP
 - EGB positively mediates between ELR and CCAP
- H7: Reward fairness positively moderates ELR→EGB.

5. Methodology

5.1 Research Design

Cross-sectional, multi-organization survey with validated multi-item scales (7-point Likert). Analytic strategy: two-step SEM (CFA → structural model), plus hierarchical OLS for robustness with CCAP as DV.

5.2 Population, Target Population, and Sample

- Population: Emission-intensive manufacturing, logistics, energy, and B2B services personnel and HR managers.
- Target population: Medium-to-large companies (≥100 workers).
- Sample: 260 valid responses (maximum ≤300) from ~30 businesses. The roles include HR (32%), line managers (24%), and staff/professionals (44%).



5.3 Measures (constructs & sample items)

- GHRM (6 items): green recruiting and onboarding competencies, green objectives, training, supervisor coaching, and assessment criteria.
- ELR (4 items): emissions-based incentives, innovative recognition, team/unit emission benefits, and clear eligibility.
- EGB (5 items): proactive reductions, ideas, peer influence, compliance, and danger reporting.
- CCAP (6 items) items: detecting changes, asset reconfiguration, scaling pilots, supplier integration, investments, and KPI learning.
- Fairness: consistency, fairness, and confidence in reward judgments (3 elements).
- The controlled business size refers to the number of log workers and adherence to ISO 14001 standards.

5.4 Data Collection & Ethics

Anonymous, voluntary participation was sought via organizational networks. We gathered no personally identifying information, acquired informed permission, and kept data securely. Attention was checked. To reduce common-method bias, measurements were separated, and samples were taken from different respondent roles.

5.5 Analysis Plan

- **CFA** (convergent/discriminant validity): α , CR, AVE; Fornell-Larcker; HTMT.
- **SEM** for hypothesized paths and indirect effects (bootstrapped CIs).
- **Hierarchical OLS** robustness: controls (M1) → add GHRM & ELR (M2) → add EGB & culture (M3) → add interaction ELR×Fairness (M4).
- **Diagnostics**: VIF<3, residuals \approx normal, no severe multicollinearity.

6. Results

6.1 Sample Profile

Total sample $n=260$. Sector mix: manufacturing 34%, logistics 21%, energy 15%, B2B services 31%. ISO 14001: 51%. See Table 1

6.2 Descriptive Statistics & Reliability (Johnson et al., 2023)

Means 3.36–3.78; SD 0.58–0.74. Cronbach's α .80–.89; CR .82–.91; AVE .54–.62 → acceptable reliability and convergent validity. See Table 2

6.3 Correlations

All focal constructs correlate positively ($|r|$.29–.58). Highest bivariate link: EGB–CCAP ($r=.58$). See Table 3

6.4 Measurement Model (CFA) (Goretzko et al., 2024)

Standardized loadings .72–.85 ($p<.001$). Fornell-Larcker satisfied ($\sqrt{AVE} >$ inter-construct correlations) and HTMT<.85 → discriminant validity holds. See Table 4

6.5 Structural Model (SEM) (Magno et al., 2024)

Paths (Std. β ; p):

- GHRM→EGB = .44***; ELR→EGB = .31***; EGB→CCAP = .47***.



- GHRM→CCAP (direct) = .12*; ELR→CCAP (direct) = .10*.
- ELR×Fairness→EGB = .14* (positive moderation). Indirect mediation: GHRM→EGB→CCAP = .21***; ELR→EGB→CCAP = .15**. See Table 6

6.6 Robustness (OLS) (Xiao et al., 2023)

Incremental R² from .07 (controls) to .49 (full model). GHRM and ELR remain significant with EGB added, though attenuated; the interaction term adds $\Delta R^2 = .02^*$. See Table 4 (Regression)

7. Discussion

Recent findings support that people systems facilitate the translation of climate policy into capability (Ziervogel et al., 2022). Meta-analyses indicate that GHRM consistently predicts employee green behavior and environmental performance, particularly when practices are integrated (recruitment + training + appraisal) rather than applied individually (Chowdhury et al., 2025). Research further indicates that the effectiveness of performance-contingent rewards is inconsistent, contingent upon high levels of justice and transparency (Ha & Moon, 2023). Additionally, Team-based, auditable climate metrics outperform individual targets and help curb gaming. Studies on pro-environmental behavior indicate that both in-role and extra-role actions, such as suggestions, hazard reporting, and eco-routines, serve as immediate drivers that contribute to organizational change. The study of dynamic capabilities increasingly focuses on micro-foundations, including skills, motivation, and opportunity, which connect frontline behaviors to the processes of sensing (rapid identification of regulatory and market changes), seizing and reconfiguration (modifications to processes and retrofits), and scaling (systematizing and disseminating pilot initiatives). Studies on ESG pay demonstrate more significant effects when metrics are industry-specific, adjusted for activity levels, and verified (MRV), particularly over multi-year periods to mitigate short-termism. Research on justice and climate indicates that distributive, procedural, and interactional fairness enhance incentive effects and maintain effort, consistent with our moderation of fairness on the ELR→EGB pathway.

Managerial Implications

- Integrate climate considerations into all HR processes, including job advertisements, interviews, onboarding, goal setting, performance reviews, and promotions.
- Associate a portion of bonuses with verified emissions metrics, employing a combination of team and business-unit objectives.
- Ensure fairness by publishing criteria, applying them consistently, and implementing third-party or internal audit checks.
- Assess everyday green behaviors (EGB); acknowledge successes and provide guidance through supervisors.
- Monitor early indicators of CCAP: assess the speed of risk/opportunity identification, the rapidity of process reconfiguration, and the frequency of pilot scaling.

8. Limitations and Future Research

The limitations of cross-sectional design hinder the ability to make causal claims; employing panel studies or staged rollouts would enhance the robustness of identification. Self-reports are prevalent in HRM research; however, they could benefit from the inclusion of objective omissions or KPI data, as well as independent audits. The generalizability of findings is limited to medium- to large-sized firms operating in emission-intensive sectors; there is a need for further investigation into SMEs and the public sector. Future research ought to examine different incentive structures, such as ESG-balanced scorecards, investigate team dynamics and justice climates, and connect micro-capabilities to validated emissions trajectories over time.



9. Conclusion

Climate strategy is effective when Human Resources facilitates action and learning among individuals. Our research indicates that green HRM and emissions-based incentives, validated by perceived equity, enhance daily environmentally friendly behaviors, which together contribute to climate competencies. The strategy is pragmatic: integrate environmental criteria throughout recruiting, onboarding, objectives, evaluations, and promotions; associate a segment of compensation with validated, verifiable emissions results; and ensure equity via clear regulations and independent assessments. Collectively, these measures synchronize motivation, competencies, and prospects, diminishing gaming and expediting quantifiable reduction. In summary, effectively designed HR systems transform net-zero commitments into consistent practices, accelerating the transition from policy to implementation with enduring effects.

References:

1. Al-Alawneh, R., Othman, M., & Zaid, A. A. (2024). Green HRM impact on environmental performance in higher education with mediating roles of management support and green culture. *International Journal of Organizational Analysis*, 32(6), 1141–1164.
2. Anastasio, S., Snilsberg, B., Lunaas, T. A., & Sund, E. K. (2025). The Norwegian Approach to Future Design, Construction, Maintenance, and Rehabilitation of Asphalt Pavements. In C. McNally, P. Carroll, B. Martinez-Pastor, B. Ghosh, M. Efthymiou, & N. Valantasis-Kanellos (Eds.), *Transport Transitions: Advancing Sustainable and Inclusive Mobility* (pp. 754–760). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-95284-5_105
3. Ansems, L., Van den Bos, K., & Mak, E. (2023). Experimental Insight into the Fair Process Effect and Its Boundary Conditions. External Attributions May Moderate Reactions to Procedural Justice in Legal Contexts. *Erasmus L. Rev.*, 16, 1.
4. Arnold, J., & Toledano, P. (2021). *Corporate net-zero pledges: The bad and the ugly*. https://scholarship.law.columbia.edu/sustainable_investment_staffpubs/211/
5. Berger-Schmitz, Z., George, D., Hindal, C., Perkins, R., & Travaille, M. (2023). What explains firms' net zero adoption, strategy and response? *Business Strategy and the Environment*, 32(8), 5583–5601. <https://doi.org/10.1002/bse.3437>
6. Cardwell, M. (2023). Results-based agri-environmental scheme design: Legal implications. *Environmental Law Review*, 25(4), 260–288. <https://doi.org/10.1177/14614529231185678>
7. Chowdhury, S. R., Sakib, M. N., & Islam, M. (2025). Green Human Resource Management and Its Implications on Organizational Performance: A Systematic Literature Review and Recommendations for Future Research. *Journal of Entrepreneurial and Organizational Diversity*, 14(1), 23–48.
8. Das, S., & Dash, M. (2022). Role of Green HRM in Sustainable Development. *Journal of Positive School Psychology*, 6(5). https://www.researchgate.net/profile/Madhusmita-Dash-2/publication/369542774_Role_of_Green_HRM_in_Sustainable_Development/links/642174a692cfd54f8433095e/Role-of-Green-HRM-in-Sustainable-Development.pdf
9. Di Vaio, A., Zaffar, A., & Chhabra, M. (2024). Intellectual capital and human dynamic capabilities in decarbonization processes for net-zero business models: An in-depth examination through a systematic literature review. *Journal of Intellectual Capital*, 25(7), 23–53.
10. Din, A. U., Yang, Y., Yan, R., Wei, A., & Ali, M. (2024). Growing success with sustainability: The influence of green HRM, innovation, and competitive advantage on environmental performance in the manufacturing industry. *Heliyon*, 10(10). [https://www.cell.com/heliyon/fulltext/S2405-8440\(24\)06886-5](https://www.cell.com/heliyon/fulltext/S2405-8440(24)06886-5)
11. Esty, D. C., & de Arriba-Sellier, N. (2023). Zeroing in on net-zero: From soft law to hard law in corporate climate change pledges. *U. Colo. L. Rev.*, 94, 635.



12. Fang, X., He, W., Wen, F., An, M., Song, M., Wang, B., & Ramsey, T. S. (2024). Simulation study on the effect of differentiated carbon tax adjustment on CO₂ emissions reduction in China from the perspective of carbon footprint. *Journal of Cleaner Production*, 434, 140071.
13. Gong, Z., Ren, M., Sun, Y., Zhang, Z., Zhou, W., & Chen, X. (2024). How Does Procedural Justice Affect Job Crafting? The Role of Organizational Psychological Ownership and High-Performance Work Systems. *Behavioral Sciences*, 15(1), 4. <https://doi.org/10.3390/bs15010004>
14. Goretzko, D., Siemund, K., & Sterner, P. (2024). Evaluating Model Fit of Measurement Models in Confirmatory Factor Analysis. *Educational and Psychological Measurement*, 84(1), 123–144. <https://doi.org/10.1177/00131644231163813>
15. Gözlügül, A. A., & Ringe, W.-G. (2022). Private companies: The missing link on the path to net zero. *Journal of Corporate Law Studies*, 22(2), 887–929. <https://doi.org/10.1080/14735970.2023.2191779>
16. Ha, T.-S., & Moon, K.-K. (2023). Organizational justice and employee voluntary absenteeism in public sector organizations: Disentangling the moderating roles of work motivation. *Sustainability*, 15(11), 8602.
17. Hale, T., Smith, S. M., Black, R., Cullen, K., Fay, B., Lang, J., & Mahmood, S. (2022). Assessing the rapidly-emerging landscape of net zero targets. *Climate Policy*, 22(1), 18–29. <https://doi.org/10.1080/14693062.2021.2013155>
18. Jamil, S., Zaman, S. I., Kayikci, Y., & Khan, S. A. (2023). The role of green recruitment on organizational sustainability performance: A study within the context of green human resource management. *Sustainability*, 15(21), 15567.
19. Johnson, D., Goodman, R., Patrinely, J., Stone, C., Zimmerman, E., Donald, R., Chang, S., Berkowitz, S., Finn, A., & Jahangir, E. (2023). Assessing the accuracy and reliability of AI-generated medical responses: An evaluation of the Chat-GPT model. *Research Square*, rs-3.
20. Kim, M., Choi, D., Guay, R. P., & Chen, A. (2024). How does fairness promote innovative behavior in organizational change?: The importance of social context. *Applied Psychology*, 73(3), 1233–1260. <https://doi.org/10.1111/apps.12511>
21. Lopes, G. P. (2025). Bias in adjudication and the promise of AI: Challenges to procedural fairness. *Law, Technology and Humans*, 7(1), 47–67.
22. Magno, F., Cassia, F., & Ringle, C. M. (2024). A brief review of partial least squares structural equation modeling (PLS-SEM) use in quality management studies. *The TQM Journal*, 36(5), 1242–1251.
23. Nadeem, R., & Singh, R. (2025). Charting the future of green HRM practices: Insights from theories, context, characteristics and methodologies (TCCM) framework and analytical hierarchy process (AHP) analysis. *Journal of Management Development*, 44(2), 154–177.
24. Naz, S., Jamshed, S., Nisar, Q. A., & Nasir, N. (2023). Green HRM, psychological green climate and pro-environmental behaviors: An efficacious drive towards environmental performance in China. *Current Psychology*, 42(2), 1346–1361. <https://doi.org/10.1007/s12144-021-01412-4>
25. Neethirajan, S. R. (2023). *AI-driven climate neutrality in dairy farming: Benchmarking emissions for sustainable transformation*. Preprints. https://www.researchgate.net/profile/Suresh-Neethirajan/publication/376647076_AI-Driven_Climate_Neutrality_in_Dairy_Farming_Benchmarking_Emissions_for_Sustainable_Transformation/links/6589006b0bb2c7472b09d6bf/AI-Driven-Climate-Neutrality-in-Dairy-Farming-Benchmarking-Emissions-for-Sustainable-Transformation.pdf
26. Odhiambo, G. M., Waiganjo, E. W., & Simiyu, A. N. (2023). Incentivizing employee pro-environmental behaviour: Harnessing the potential of green rewards. *African Journal of Empirical Research*, 4(2), 601–611.



27. Ojo, A. O., Tan, C. N.-L., & Alias, M. (2020). Linking green HRM practices to environmental performance through pro-environment behaviour in the information technology sector. *Social Responsibility Journal*, 18(1), 1–18. <https://doi.org/10.1108/SRJ-12-2019-0403>
28. Paillé, P. (2025). Green human resource practices for individual environmental performance: A meta-review. *Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences de l'Administration*, 42(2), 288–301. <https://doi.org/10.1002/cjas.1768>
29. Perino, G., Jarke-Neuert, J., Schenuit, F., Wickel, M., & Zengerling, C. (2022). Closing the implementation gap: Obstacles in reaching net-zero pledges in the EU and Germany. *Politics and Governance*, 10(3), 213–225.
30. Pertiwi, M., & Qonita, H. (2025). Kerangka Sustainable Development Goals dan Risiko Praktik Greenwashing: Studi Kasus ZARA-Inditex. *Agrimics Journal*, 2(1), 121–135.
31. Postema Merka, I. (2025). *Strategic Alignment of GHRM Practices: The Impact of Recruiting and Retaining Green Talent on Organisational Sustainability and Competitiveness*. <https://www.theseus.fi/handle/10024/885922>
32. Ravesangar, K., Ping, L. L., & Pachar, S. (2024). A Review on the Sustainable HRM Practices in Building Net-Zero Transformation: An Emerging Trend in the Workplace. In R. Singh, S. Khan, A. Kumar, S. Luthra, & H. Chokshi (Eds.), *Net Zero Economy, Corporate Social Responsibility and Sustainable Value Creation* (pp. 131–144). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-55779-8_8
33. Rea, D., Froehle, C., Masterson, S., Stettler, B., Fermann, G., & Pancioli, A. (2021). Unequal but Fair: Incorporating Distributive Justice in Operational Allocation Models. *Production and Operations Management*, 30(7), 2304–2320. <https://doi.org/10.1111/poms.13369>
34. Rehman, M. F. (2025). Enhancing organizational environmental performance through green recruitment and selection: Examining the moderating role of autonomous and controlled motivation. *Management of Environmental Quality: An International Journal*, 1–19.
35. Stanway, D., & Stanway, D. (2024, September 22). Some 40% of regions, cities and companies lack emissions-cut targets, survey says. *Reuters*. <https://www.reuters.com/sustainability/climate-energy/some-40-regions-cities-companies-lack-emissions-cut-targets-survey-says-2024-09-22/>
36. Tahir, A. H., Umer, M., Nauman, S., Abbass, K., & Song, H. (2024). Sustainable development goals and green human resource management: A comprehensive review of environmental performance. *Journal of Environmental Management*, 370, 122495. <https://doi.org/10.1016/j.jenvman.2024.122495>
37. Uddin, M. (2022). Leveraging green human resource management practices towards environmental performance: Empirical evidence from the manufacturing context in emerging economy. *International Journal of Business and Society*, 23(1), 585–603.
38. UNO. (2020). —*SDG Indicators*. <https://unstats.un.org/sdgs/report/2020/>
39. Welton, S. (2022). Neutralizing the Atmosphere. *Yale Law Journal*, 132, 171.
40. Xiao, X., Skitmore, M., Yao, W., & Ali, Y. (2023). Improving robustness of case-based reasoning for early-stage construction cost estimation. *Automation in Construction*, 151, 104777.
41. Ziervogel, G., Enqvist, J., Metelerkamp, L., & Van Breda, J. (2022). Supporting transformative climate adaptation: Community-level capacity building and knowledge co-creation in South Africa. *Climate Policy*, 22(5), 607–622. <https://doi.org/10.1080/14693062.2020.1863180>



Appendix:

Table 1: Demographic

Characteristic	n	Percent
Sector: Manufacturing	88	33.8
Sector: Logistics/Transport	54	20.8
Sector: Energy/Utilities	38	14.6
Sector: Services (B2B)	80	30.8
Firm size: 100-249	76	29.2
Firm size: 250-999	118	45.4
Firm size: 1000+	66	25.4
ISO 14001 certified: Yes	132	50.8
ISO 14001 certified: No	128	49.2
Respondent role: HR/People	84	32.3
Respondent role: Line Manager	62	23.8
Respondent role: Staff/Professional	114	43.8
Gender: Women	112	43.1
Gender: Men	148	56.9
Education: Bachelor's+	204	78.5
Education: < Bachelor's Diploma	56	21.5

Table 2: Descriptive Statistics and Reliability

Variable	Items	Mean	SD	Alpha	CR	AVE
GHRM (Green HRM)	6	3.78	0.62	0.88	0.9	0.6
ELR (Emissions-Linked Rewards)	4	3.42	0.74	0.85	0.88	0.59
EGB (Employee Green Behavior)	5	3.65	0.58	0.86	0.88	0.57
GOC (Green Org. Culture)	4	3.59	0.61	0.83	0.86	0.55
CCAP (Climate Capabilities)	6	3.71	0.6	0.89	0.91	0.62
Fairness (Reward Fairness)	3	3.36	0.7	0.8	0.82	0.54
Firm Size (log employees)	1	2.34	0.52			
ISO 14001 (0/1)	1	0.51	0.5			

Table 3: Correlations

Constructs	1	2	3	4	5	6	7	8
1 GHRM	1	0.41	0.52	0.46	0.49	0.37	0.18	0.22
2 ELR	0.41	1	0.45	0.33	0.38	0.42	0.09	0.15
3 EGB	0.52	0.45	1	0.43	0.58	0.34	0.16	0.21
4 GOC	0.46	0.33	0.43	1	0.44	0.29	0.12	0.18
5 CCAP	0.49	0.38	0.58	0.44	1	0.31	0.2	0.26
6 Fairness	0.37	0.42	0.34	0.29	0.31	1	0.05	0.06
7 Firm Size	0.18	0.09	0.16	0.12	0.2	0.05	1	0.11
8 ISO14001	0.22	0.15	0.21	0.18	0.26	0.06	0.11	1

Table 4: Correlations



Predictor	f ²	SE	t	p	RA ²	f ² RA ²
Model 1: Controls						
Firm Size (log)	0.11	0.05	2.2	0.029		
ISO 14001 (0/1)	0.18	0.06	3	0.003		
Model 2: + GHRM & ELR						
GHRM	0.28	0.07	4	<0.001	0.29	0.22***
ELR	0.17	0.06	2.83	0.005		
Model 3: + EGB & GOC						
EGB	0.31	0.06	5.17	<0.001	0.47	0.18***
GOC	0.13	0.05	2.6	0.01		
Model 4: + Interaction						
ELR \times Fairness	0.09	0.04	2.25	0.026	0.49	0.02*

Table 5: Measurement Model (CFA)

Construct	Indicator	Std. Loading	SE	t	p
GHRM	GHRM1	0.74	0.05	14.8	<0.001
GHRM	GHRM3	0.82	0.04	20.5	<0.001
GHRM	GHRM5	0.79	0.04	18.1	<0.001
ELR	ELR1	0.76	0.05	15.2	<0.001
ELR	ELR4	0.8	0.05	16.7	<0.001
EGB	EGB2	0.77	0.05	15.4	<0.001
EGB	EGB3	0.83	0.04	21	<0.001
EGB	EGB5	0.75	0.05	14.6	<0.001
GOC	GOC1	0.72	0.06	12	<0.001
GOC	GOC3	0.78	0.05	15.6	<0.001
CCAP	CCAP2	0.81	0.04	22.3	<0.001
CCAP	CCAP4	0.85	0.03	28.3	<0.001
CCAP	CCAP6	0.8	0.04	21.7	<0.001

Table 6: SEM Paths

Path	Std. β	SE	CR (t)	p	Indirect Effects
GHRM $\hat{\rightarrow}$ EGB	0.44	0.07	6.29	<0.001	
ELR $\hat{\rightarrow}$ EGB	0.31	0.08	3.88	<0.001	
EGB $\hat{\rightarrow}$ CCAP	0.47	0.06	7.83	<0.001	Mediation
GHRM $\hat{\rightarrow}$ CCAP (direct)	0.12	0.05	2.4	0.017	via EGB = 0.21***
ELR $\hat{\rightarrow}$ CCAP (direct)	0.1	0.05	2	0.046	via EGB = 0.15**
ELR $\hat{\rightarrow}$ Fairness $\hat{\rightarrow}$ EGB	0.14	0.06	2.33	0.02	