

WORKPLACE WELL-BEING AND CLIMATE RESILIENCE THROUGH GREEN HRM STRATEGIES

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Abstract

Workplace well-being has become a strategic priority in Human Resource Management (HRM), especially in response to the escalating impacts of climate change. Rising global temperatures, extreme weather events, and environmental degradation pose significant threats to employee health, productivity, and organizational sustainability. This conceptual paper explores how Green Human Resource Management (GHRM) can serve as a proactive approach to sustaining workplace well-being amidst climate disruptions. By integrating GHRM with occupational health and safety (OHS) and organizational resilience, we propose a multidimensional framework that addresses key elements of well-being: physical health, psychological resilience, work-life balance, and eco-friendly work environments. The study highlights how strategic HR interventions—including climate resilience training, sustainable workplace policies, and employee assistance programs (EAPs)—can mitigate the adverse effects of climate-related stressors on employees. Furthermore, the model emphasizes the role of organizational resilience in amplifying the positive outcomes of GHRM practices. This research contributes to the growing body of literature on sustainable HRM by offering theoretical insights and practical strategies for enhancing employee engagement and reducing turnover in the face of environmental challenges. It also provides a foundation for future empirical investigations into HR-driven sustainability efforts and their role in supporting workforce well-being. Ultimately, the paper positions GHRM as a vital mechanism not only for organizational competitiveness but also for environmental and human sustainability.

Keywords: workplace well-being, climate change, Green HRM, employee resilience, sustainability, human resource management

INTRODUCTION

The growing impact of climate change has brought profound implications not only for ecosystems and economies but also for human capital within organizations. Employees are increasingly vulnerable to the physical and psychological stressors induced by environmental degradation, including extreme heat, air pollution, and unpredictable natural disasters (IPCC, 2022). These conditions pose serious threats to workplace well-being, a multidimensional construct that encompasses physical health, mental resilience, social connectedness, and overall job satisfaction (Grawitch et al., 2006). Organizations must therefore broaden their understanding of employee well-being by considering environmental risk factors and sustainability concerns.

Climate change has been declared as the most pressing global health and environmental challenge of the 21st century, with profound implications not only on ecosystems and public infrastructure, but also on workplace conditions and the well-being of workers (Tesfaye et al., 2025, p. 1). In many industries—especially those operating in heat-intensive environments or prone to extreme weather—climate-related stressors have begun to directly compromise the health, safety, and productivity of employees (Kjellstrom et al., 2009, p. 1)

Green Human Resource Management (GHRM) has emerged as a strategic response to this challenge. GHRM integrates environmental sustainability into HR practices—such as green recruitment, training, performance management, and safety protocols—with the dual aim of ecological responsibility and employee resilience (Yong et al., 2019, p. 1). Recent studies further underscore the role of GHRM in fostering pro-environmental behavior, enhancing mindfulness, and facilitating green knowledge sharing within organizations (Li & Li, 2025, p. 2)

In response, Green Human Resource Management (GHRM) has emerged as a strategic approach that integrates environmental sustainability into core HR functions such as recruitment, training, performance management, and employee involvement (Renwick et al., 2013). GHRM practices not only reduce the ecological footprint of organizations but also foster employee engagement and a sense of purpose aligned with environmental values (Yusliza et al., 2019). Recent studies have shown that employees working in green-oriented companies report higher levels of job satisfaction, lower stress, and stronger organizational commitment (Pham et al., 2020). These outcomes are crucial in an era when talent retention and workforce resilience are becoming competitive advantages.

This paper develops a conceptual framework that positions GHRM as a catalyst for enhancing workplace well-being in the face of climate change. By incorporating occupational health and safety (OHS) and organizational resilience into the model, the framework aims to capture the complex interplay between sustainable HR practices and employee outcomes. It also identifies actionable HR interventions—such as climate adaptation training and sustainable workplace design—that can serve as buffers against environmental stressors. Ultimately, this study contributes to the evolving discourse on sustainable HRM and underscores the critical role of human resource strategies in supporting both people and the planet.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Green Human Resource Management (GHRM) has emerged as a critical strategic tool in addressing organizational sustainability and employee well-being. GHRM emphasizes the integration of environmental management into human resource policies, including green recruitment, training, and performance appraisal (Yong et al., 2019, p. 2). Studies have highlighted its role in promoting pro-environmental behaviors (PEBs), enhancing employee motivation, and reducing ecological footprints (Li & Li, 2025, p. 2). Furthermore, GHRM practices have been found to improve organizational commitment and environmental performance when linked with knowledge sharing and green mindfulness.

Simultaneously, workplace well-being has gained prominence as a key element of sustainable human resource strategies. Guest (2017) argued for a shift toward mutual gains models in HRM, which prioritize not only organizational performance but also employee psychological and emotional health. The inclusion of well-being as a central HR objective is increasingly supported by evidence linking autonomy, job security, and fair treatment to higher engagement and productivity.

Climate change introduces a new dimension to this discourse, as it directly affects occupational safety and health (OSH). According to the ILO (2023), extreme weather events, heatwaves, and air pollution now pose serious threats to worker health, productivity, and safety, particularly in developing regions. These hazards exacerbate mental stress, respiratory issues, and cardiovascular risks, thus undermining both physical and psychological well-being at work.

The implications of climate change for health workers specifically were explored by Tesfaye et al. (2025), who identified multiple stressors including mental fatigue, burnout, and increased exposure to disease vectors due to rising temperatures. Similarly, Ferrari et al. (2023) noted that

outdoor workers in agriculture, construction, and logistics are increasingly exposed to heat stress and related injuries, which directly impair work performance and raise OSH concerns.

The intersection of GHRM and climate-induced challenges points to the growing relevance of ecological responsibility within HR practices. Organizations must adopt resilient HR frameworks that not only respond to environmental imperatives but also protect employees from emerging risks. According to Makhamara & Bula (2022), firms integrating GHRM strategies are more likely to achieve long-term sustainability and resilience, especially when such practices are embedded into their corporate culture.

Moreover, climate-induced risks such as workplace heat stress have been shown to reduce work capacity by up to 50% during peak heat exposure, with implications for both productivity and income generation (Kjellstrom et al., 2009). This aligns with research that calls for adaptive labor policies, including regulated work hours, heat management strategies, and employee education on coping mechanisms.

The literature also emphasizes the psychological dimension of climate-related workplace stress. Vulnerable populations such as the elderly, children, and low-income workers suffer disproportionate mental health effects during climate disasters (Benevolenza & DeRigne, 2019, p. 270). These stressors, if unmanaged, can contribute to burnout, absenteeism, and turnover, undermining organizational goals and societal equity.

In addition, research by Yong et al. (2019) categorizes GHRM practices into five thematic areas: green job design, green recruitment, green training, green performance management, and green compensation. These categories align with sustainable development goals (SDGs) and can be leveraged to mitigate workplace stressors exacerbated by climate change. Integrating these components into HR systems may help in enhancing workplace resilience and employee satisfaction.

Hypothesis Formulation

Building upon the literature, this study proposes the following hypotheses:

H1: GHRM practices have a positive effect on workplace well-being by enhancing environmental awareness, reducing ecological stressors, and promoting sustainable behaviors among employees.

H2: Climate change-induced stressors (e.g., heat, air pollution, extreme weather) have a negative effect on employee well-being, mediated by occupational health and safety challenges.

H3: The implementation of GHRM practices moderates the negative impact of climate change on workplace well-being by fostering adaptive capacity and psychological resilience.

RESEARCH METHODS

This study adopts a quantitative research approach to examine the relationship between Green Human Resource Management (GHRM) practices, climate change-related challenges, and workplace well-being. The research is explanatory in nature and aims to test the hypotheses developed in the previous section, utilizing a cross-sectional survey design.

Population and SampleThe population of this research consists of employees from various sectors in Indonesia that are considered vulnerable to climate change impacts—particularly those in manufacturing, healthcare, construction, and agriculture. A purposive sampling technique was employed to select respondents who have experience with or knowledge of environmental and sustainability practices in their workplaces. A total of 300 questionnaires were distributed, and 247 valid responses were obtained, achieving a response rate of 82.3%.

Instrument Development.

The survey instrument was developed based on validated constructs from previous studies. GHRM practices were measured using adapted items from Yong et al. (2019), which include green recruitment, training, performance management, and green compensation. Workplace well-being was measured using indicators proposed by Guest (2017), emphasizing job satisfaction, mental health, and perceived organizational support. Climate-related stressors were measured using the framework from the ILO (2023), focusing on heat stress, air pollution, and extreme weather events.

Data Collection Procedure

Data were collected using an online and paper-based structured questionnaire between January and March 2025. Prior to full distribution, a pilot test was conducted with 30 respondents to ensure clarity and reliability of the instrument. The Cronbach's alpha coefficients for all constructs exceeded 0.7, indicating good internal consistency.

Analytical Method

Data were analyzed using Structural Equation Modeling (SEM) with the assistance of SmartPLS 4.0 software. SEM was chosen due to its robustness in testing complex relationships between latent variables and its ability to handle measurement errors. The analysis included Confirmatory Factor Analysis (CFA) to assess the construct validity, and the mediation and moderation effects were tested using the bootstrapping technique with 5,000 resamples.

Ethical Considerations

Ethical approval was obtained from the institutional ethics committee before data collection. Participation in this research was voluntary, and all participants were informed about the purpose of the study. Anonymity and confidentiality of the responses were strictly maintained.

Conceptual Framework

The proposed framework integrates GHRM as the independent variable, climate change-related stressors as moderating variables, and workplace well-being as the dependent variable. Mediating variables include green organizational commitment and sustainable work behavior, following theoretical models by Li & Li (2025) and Benevene & Buonomo (2020).

This methodological approach enables an in-depth understanding of how environmentally responsible HRM practices can mitigate the negative consequences of climate change on employee well-being, thereby contributing to sustainable human resource development.

RESULTS AND DISCUSSION

Results

The data collected from 247 respondents were analyzed using Structural Equation Modeling (SEM) with SmartPLS 4.0. The model exhibited good fit indices, with the SRMR value at 0.061 and all factor loadings exceeding 0.70. The composite reliability and AVE values for each construct confirmed internal consistency and convergent validity.

The results confirmed that Green Human Resource Management (GHRM) practices have a significant positive effect on workplace well-being ($\beta = 0.431$, $p < 0.001$). Furthermore, green organizational commitment was found to partially mediate the relationship between GHRM and employee well-being ($\beta = 0.287$, $p < 0.01$). Sustainable work behavior also acted as a mediator, reinforcing the effect of GHRM on employee outcomes ($\beta = 0.214$, $p < 0.05$).

Interestingly, climate change-related stressors—particularly heat stress and air pollution—were found to negatively moderate the relationship between GHRM and workplace well-being ($\beta = -0.198, p < 0.05$). This indicates that in high-risk environments, even proactive HRM practices may have limited impact unless complemented by occupational safety measures. However, organizations with high levels of resilience and strong climate adaptation strategies showed mitigated negative effects.

Discussion

These findings reinforce the argument that GHRM plays a crucial role in enhancing employee well-being, particularly in environmentally volatile contexts. The positive direct effect of GHRM on well-being supports previous studies by Yong et al. (2019) and Li & Li (2025), who emphasized that green training and sustainable leadership practices contribute to higher levels of job satisfaction and psychological comfort.

The mediating roles of green organizational commitment and sustainable work behavior are consistent with the results of Yang & Li (2023), suggesting that internal motivation and value alignment strengthen the link between environmental HR practices and positive employee outcomes. Moreover, this aligns with the AMO framework, where employee ability, motivation, and opportunity are key to driving well-being in sustainable workplaces.

However, the negative moderating role of climate-related hazards echoes the ILO (2023) and Ferrari et al. (2023) findings on how heatwaves, air pollution, and natural disasters limit productivity and mental health. This underscores the need for organizations to go beyond HRM by integrating environmental risk management into employee support systems.

Furthermore, the discussion aligns with Guest's (2017) mutual gains perspective, which advocates for HRM strategies that address both performance and well-being. The results show that GHRM practices can be both ethically responsible and strategically beneficial, but their success depends heavily on external environmental stability and internal organizational resilience.

Overall, this study contributes to the growing body of literature linking climate adaptation, sustainability, and employee well-being, reinforcing the need for integrated HR and environmental strategies.

CONCLUSION

Conclusion

This study examined the impact of Green Human Resource Management (GHRM) practices on workplace well-being in the context of increasing climate change-related challenges. The findings confirm that GHRM plays a critical role in fostering employee well-being, primarily through the development of sustainable behaviors and a strong sense of green organizational commitment. However, the benefits of GHRM are potentially diminished by the presence of climate-induced stressors such as extreme heat, air pollution, and unpredictable weather patterns.

The study also validates the importance of integrating environmental resilience into HR strategies. Organizations that embed sustainability into their core HR practices—through green training, eco-conscious leadership, and performance systems—are better positioned to maintain employee motivation and well-being in climate-vulnerable settings. Additionally, the mediating role of green behaviors and commitment provides deeper insights into how GHRM translates into outcomes.

Theoretical Implications

This research contributes to the growing literature at the intersection of environmental sustainability and human resource management. It extends the AMO (Ability-Motivation-Opportunity) framework by demonstrating how green HR initiatives influence employee outcomes through both individual (e.g., behavior) and organizational (e.g., commitment) mechanisms. Furthermore, it advances the mutual gains model proposed by Guest (2017), supporting the notion that HR practices can simultaneously enhance organizational performance and employee well-being, particularly when aligned with environmental strategies.

Practical Implications

For HR practitioners and organizational leaders, the findings suggest that investing in GHRM practices is essential not only for environmental performance but also for employee resilience and satisfaction. Organizations should implement structured green training programs, incentivize pro-environmental behavior, and ensure that workplace design and safety policies account for climate hazards. Moreover, occupational health and safety (OSH) frameworks must be upgraded to reflect climate realities, particularly in sectors vulnerable to extreme environmental conditions.

Policymakers are encouraged to develop regulatory frameworks that promote the adoption of green HR practices and ensure that climate adaptation is embedded in national labor strategies. Support mechanisms, such as climate-related OSH guidelines, green workplace certification programs, and employee climate literacy initiatives, can amplify the impact of organizational efforts.

In conclusion, the integration of GHRM into climate-responsive organizational strategies is no longer optional—it is imperative for safeguarding both environmental and human sustainability in the workplace.

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