

-RESEARCH ARTICLE-

## DIAGNOSING THE GAP IN APPLYING GREEN HUMAN RESOURCE MANAGEMENT (GHRM) PRACTICES TO ACHIEVE SHARED VALUE

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### —Abstract—

Considering growing global trends toward sustainability, Green Human Resource Management (GHRM) has emerged as a contemporary managerial approach that integrates environmental dimensions into organizational policies and practices. This study asks whether adopting green practices is sufficient to generate Green Shared Value. The study diagnoses the implementation gap of GHRM practices within the Iraqi Ministry of Higher Education and Scientific Research and analyzes their contribution to Green Shared Value. A case study design was adopted, with data collected through interviews, field observation, and a 30-item checklist covering five GHRM dimensions and the three dimensions of Green Shared Value. Findings are reported as weighted compliance indices with explicit gap decomposition. GHRM implementation reached 77.67% with a gap of 22.33%, while Green Shared Value achieved 69% with a gap of 31%. The value gap therefore exceeds the practice gap by 8.67 percentage points, indicating that adoption is outpacing conversion. The Ministry possesses initial capabilities supporting GHRM but translating them into sustainability outcomes requires green reward systems, environmental innovation support, waste management programs, and clear environmental performance indicators. The study proposes an integrated strategic framework linking practices to value through identified mediating mechanisms.

**Keywords:** Green Human Resource Management, Green Shared Value, Gap Analysis, Sustainability, Public Sector, Higher Education; Iraq

Citation (APA): Alkabi, M. K. B. (2026). Diagnosing The Gap in Applying Green Human Resource Management (Ghrm) Practices to Achieve Shared Value. *International Journal of eBusiness and eGovernment Studies*, 18(2), 31-49. doi:10.34109/ijepeg.2026180202

## INTRODUCTION

Within the last decade, there has been a significant change in priorities related to sustainability in both governmental and private organizations, driven by environmental, societal, and economic pressures. Implementing sustainable management practices has become a strategic necessity rather than an optional organizational concern. Within this context, Green Human Resource Management (GHRM) has become one of the most significant modern management approaches. GHRM refers to the integration of environmental considerations into human resource functions including recruitment and selection, training and development, performance appraisal, and incentives and rewards, thereby encouraging environmentally oriented employee behavior and forming a sustainable organizational culture (Miah et al., 2024; Priyashantha et al., 2026).

Recent literature indicates that the success of any sustainability initiative depends not only on environmental technologies and regulations but principally on an organization's capacity to develop human resources possessing environmental consciousness and the skills required to implement strategic directions in an environmentally responsible manner. GHRM thus becomes a key determinant of sustainable organizational performance and competitiveness (Pawirosumarto, 2026). The empirical base supporting this claim is now substantial: green recruitment, training, appraisal, and compensation have each been linked to environmental performance across manufacturing, hospitality, and healthcare settings (Aftab et al., 2023; Al-Swidi et al., 2021; Kim et al., 2019). The concept of Green Shared Value has emerged as a development of the shared value creation philosophy, implying the need to generate value not only for the organization but also for society and the environment through integration of the economic, social, and environmental dimensions of value creation rather than treating them as separate directions. This tripartite conception aligns Green Shared Value with the triple bottom line, and recent syntheses confirm that GHRM research has increasingly organized itself around exactly these three outcome categories (Kamboj & A, 2024; Pawirosumarto, 2026).

Yet an important asymmetry runs through this literature. The overwhelming majority of empirical studies test whether GHRM practices predict an outcome, typically environmental performance or employee green behavior, and report standardized coefficients from cross-sectional survey data (Ahmad et al., 2022; Ali & Hassan, 2023; Raza & Khan, 2022). Very few ask a prior and arguably more consequential question for practice: whether an organization that has adopted green practices at a reasonable level is thereby generating shared value at a comparable level. Adoption and conversion are distinct constructs, and literature's reliance on association-based designs has left their relationship largely unexamined. An organization may score creditably on practice adoption while failing to translate those practices into measurable economic, environmental, or social returns, and a correlational design cannot detect this because it

does not measure the two on a common scale.

The methodological instrument suited to this question is gap analysis, which measures the distance between current and target states on a common metric and therefore permits direct comparison across constructs. Gap analysis is well established in operations and quality management but remains conspicuously underused in GHRM research, where maturity assessment has attracted far less attention than hypothesis testing. Where implementation has been examined, it has typically been through barrier identification rather than quantified maturity measurement (Sulistiawan et al., 2025). The consequence is that the field can state which practices correlate with which outcomes but cannot tell a specific organization how far it has progressed or where its binding constraint lies.

### **Scope of the Study**

This study is bounded in four respects. Substantively, it addresses the implementation maturity of GHRM practices and the realization of Green Shared Value, not the causal effect of one on the other; the design is diagnostic rather than inferential. Organizationally, it examines a single ministry, treating it as a case rather than a sample, which permits depth of institutional access at the cost of statistical generalizability. Methodologically, it relies on a structured checklist completed through interviews and field observation with informants holding direct operational knowledge, so it records assessed institutional practice rather than employee perception. Geographically, it is confined to Iraq, a setting in which public sector sustainability initiatives operate under budgetary constraint, limited environmental regulation, and an administrative culture in which environmental performance indicators are not routinely collected.

### **Significance of Study**

The significance of the study is threefold. Theoretically, it introduces gap analysis as a diagnostic instrument into literature dominated by variance-based modelling, and in doing so demonstrates that practice adoption and value realization can be measured on a common scale and compared directly. This yields a finding that association-based designs structurally cannot produce: the identification of a conversion deficit, where the gap in outcomes exceeds the gap in practices. Empirically, it supplies evidence from the Arab public education sector, a context almost absent from a GHRM literature concentrated in private manufacturing and hospitality firms in Asia and Europe (Kamboj & A, 2024). Practically, it converts diagnosis into a prioritized and sequenced remediation agenda addressed to identifiable institutional actors, rather than the generic recommendations that typically conclude survey-based studies.

There is also a wider policy relevance. Ministries of higher education occupy an unusual position in the sustainability architecture, since they are simultaneously large employers

with their own environmental footprint and the institutions that shape the environmental literacy of future professionals through the universities they govern. A ministry that cannot operationalize sustainability internally is poorly placed to require it of the institutions under its supervision, which makes the internal implementation gap a matter of sectoral rather than merely organizational consequence (Al Doghan et al., 2024; Zahrani, 2024).

Further consideration concerns the choice of setting. Public sector organizations differ from the private firms that dominate the GHRM evidence base in ways that bear directly on implementation. They operate under budget appropriations rather than discretionary spending, which constrains capital investment in environmental infrastructure; their performance is evaluated against administrative rather than commercial criteria, weakening the business case that motivates private adoption; and their personnel systems are frequently governed by civil service regulations that limit managerial discretion over incentives and working arrangements. Each of these features attenuate precisely the mechanisms through which GHRM is theorized to operate. Evidence generated in private manufacturing or hospitality settings therefore cannot be assumed to transfer, and the scarcity of public sector studies is a substantive gap rather than a matter of coverage (Javed et al., 2024).

Iraq sharpens these conditions further. The higher education sector has expanded rapidly while operating under fiscal constraint, environmental regulation remains thin, and administrative systems for collecting environmental performance data are not established. These are demanding conditions for sustainability initiatives, and they are also the conditions under which a large share of the world's public institutions operate. A diagnosis conducted here therefore speaks to a broader class of organizations than the single case might suggest, and it tests whether the GHRM framework retains diagnostic utility where its enabling conditions are weakest (Akbar et al., 2024).

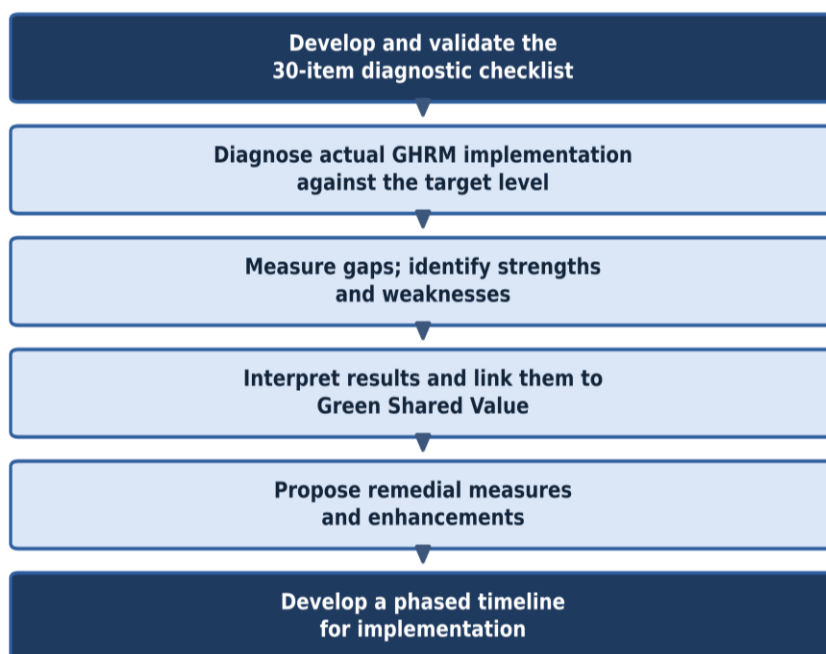
## **Statement of the Problem**

Despite rapid development of GHRM literature, most existing studies are dedicated to testing the influence of these practices on environmental performance or employee green behavior. The number of studies establishing a connection between the level of GHRM implementation and the achievement of Green Shared Value, particularly via gap analysis, is relatively low. Moreover, studies dedicated to GHRM in governmental organizations, especially within the Iraqi context and the higher education sector, are similarly scarce. The problem this study addresses is therefore one of conversion rather than adoption: whether green practices, once implemented, are being transformed into shared value, and if not, where the transmission fails.

## Research Objectives

In line with the results reported in Section 4, the study pursues four objectives. The first is to develop and apply a diagnostic instrument capable of measuring GHRM implementation maturity at the level of individual practices rather than as an aggregate score. The second is to quantify the implementation gap for GHRM practices, expressed as a weighted compliance index and its complement. The third is to quantify the corresponding gap for Green Shared Value across its economic, environmental, and social dimensions, using the same metric so that the two are directly comparable. The fourth is to compare the two gaps, identify the specific practices where implementation is weakest, and derive a phased remediation agenda whose sequencing follows from the magnitude and interdependence of the measured deficits.

Figure 1 sets out the procedural framework through which these objectives were pursued.



**Figure 1:** Procedural Framework of the Diagnostic Study

**Note:** Prepared by the author. Each stage feeds the next, with the final stage returning to re-measurement in subsequent assessment cycles.

## LITERATURE REVIEW

### Green Human Resource Management: Concept and Evolution

Green human resource management is defined as the integration of environmentally friendly practices into HRM activities and policies for the purpose of achieving

organizational sustainability and promoting environmentally responsible employee behavior (Miah et al., 2024; Priyashantha et al., 2026). Recent systematic reviews confirm that the concept has progressed from isolated practices to a multi-level system in which HRM inputs are linked with green employee behavior and with economic, environmental, and social outputs. Kamboj and A (2024), analysing 204 studies indexed in Scopus and Web of Science, show that GHRM has become an important determinant of organizational environmental capacity and of the transition from traditional to environmentally oriented practices that support employee well-being and sustainable performance.

The evidentiary base has broadened considerably. Aftab et al. (2023), surveying 410 manufacturing managers in Pakistan using partial least squares structural equation modelling, found that GHRM improves environmental performance through green innovation and pro-environmental behavior, with environmental strategy moderating the innovation-performance path. Al-Swidi et al. (2021) demonstrated that the effect of GHRM on employee green behavior and organizational environmental performance is joint rather than independent, operating in combination with leadership and organizational culture. Kim et al. (2019) established the relationship in the hospitality sector, and Singh et al. (2020) showed that green transformational leadership and GHRM together drive green innovation and environmental performance. The consistency of these findings across sectors and estimation strategies makes the general association difficult to dispute.

### **GHRM Practice Dimensions**

Current literature classifies GHRM practices according to the green employee lifecycle, covering all human resource functions. Green recruitment and selection involve hiring environmentally conscious individuals who share sustainability values, introducing environmental criteria into job descriptions and interview processes. Green training and development builds sustainability skills and competencies in energy reduction, recycling, and waste management, and is among the most studied and influential dimensions. Green performance evaluation ties individual and organizational performance indicators to specific and measurable environmental goals. Green incentives and rewards provide tangible and intangible recognition for environmentally responsible behavior. Flexible work policies adopt remote and flexible arrangements to reduce commuting-related carbon footprint and improve work-life balance. Diversity and environmental inclusion create an inclusive environment that draws on varied backgrounds to generate sustainable solutions. Employee engagement and green empowerment involve staff in environmental initiatives and empower them to propose and institutionalize solutions.

These dimensions are not equal in effect. Evidence indicates that green training exerts a strong and consistently replicated influence on environmental outcomes, whereas

incentives and rewards show a stronger association with green innovation specifically, because material recognition alters the risk calculus surrounding experimentation (Kuo et al., 2022). Evidence from public education settings confirms that recognition and rewards operate as moderators rather than as direct drivers, conditioning whether antecedent practices translate into performance (Balakrishnan et al., 2022). Al-Hawari et al. (2021) add an important boundary condition, showing that the effect of GHRM practices on green creativity is contingent on perceived work meaningfulness, which implies that identical practices produce different outcomes depending on how employees interpret them. Darvishmotevali and Altinay (2022) similarly find that servant leadership moderates the relationship between GHRM, environmental awareness, and green behavior. The practical implication is that practice adoption alone is an incomplete predictor of outcome.

## Theoretical Frameworks

GHRM studies draw on several theories explaining how HR practices influence environmental behavior and sustainable performance. The Ability-Motivation-Opportunity framework is the most used, explaining how GHRM practices build ability through recruitment and training, motivation through incentives and evaluation, and opportunity through engagement and empowerment. The Resource-Based View treats green human capital as a rare and valuable resource conferring competitive advantage. Stakeholder theory emphasizes internal and external pressures on the adoption of environmental practices and regards employees as stakeholders influencing environmental performance. Social exchange theory explains positive employee environmental behavior as reciprocation for organizational environmental support. Social identity theory explains how belonging to an environmentally committed organization increases involvement in green initiatives. More recent work applies dynamic capability theory to explain how organizations renew their green practices over time (Pawirosumarto, 2026).

## Barriers to Implementation

Despite documented benefits, organizations in developing countries and the public sector face substantial barriers. These include high costs associated with adopting environmentally friendly technologies, requiring considerable infrastructure investment; a lack of environmental skills and knowledge, necessitating specialized training programs; resistance to organizational change among individuals and units accustomed to established routines; limited resources and budgets, with weak financial allocation for environmental initiatives constituting one of the most important barriers in developing-country public sectors; the absence of a sustainability culture and weak belief in the benefits of sustainability practices; disparities in environmental legislation across jurisdictions; difficulties in measuring environmental performance owing to the absence of appropriate instruments and standards; and a weak linkage between green

practices and their outcomes, whereby initiatives remain individual and non-institutional and therefore do not translate into measurable shared value (Sulistiawan et al., 2025).

The final barrier is the most consequential for the present study, since it names precisely the conversion failure that gap analysis is designed to detect. Sulistiawan et al. (2025), applying a fuzzy Delphi and DEMATEL procedure to the Indonesian banking sector, found that the absence of green culture, weak confidence in green benefits, insufficient senior management support, and the lack of a comprehensive implementation programme were the most influential barriers, and that these operate as causes rather than effects within the barrier network. Huang et al. (2021) offer a complementary reading from the innovation resistance literature, showing that resistance is frequently a rational response to perceived implementation risk rather than mere inertia. Where an organization lacks measurement systems, the perceived risk of green investment is high because returns cannot be demonstrated, which produces exactly the caution that budgetary constraint alone would not explain.

### **Green Shared Value and the Triple Bottom Line**

Green shared value means the integration of environmental, economic, and social aims, producing profitability, societal benefit, and environmental well-being simultaneously. It is a practical application of the triple bottom line concept. The economic dimension concerns sustainable economic value achieved through increased efficiency, reduced costs, resource efficiency, green innovation, and entry into the green economy. The environmental dimension concerns environmental sustainability achieved through reduced carbon emissions and resource consumption, improved waste management and recycling, and reduced environmental risk. The social dimension links social and environmental responsibility, improves employee well-being, fosters cooperation between organization and community, and develops a sustainability culture. Jerónimo et al. (2020) provide direct evidence that green HR practices shape the organizational rationale for sustainability, indicating that the three dimensions are connected through organizational logic rather than merely aggregated.

The integration of GHRM with corporate social responsibility supports shared value creation by improving efficiency, reducing carbon footprint, positioning human resources as the primary driver of green strategy, embedding a culture of responsibility, and enhancing reputation. Abbas et al. (2023) demonstrate this in the hotel sector, finding that GHRM influences environmental and social sustainability jointly rather than sequentially. Jamil et al. (2023) show that green recruitment in particular contributes to organizational sustainability performance, since selection determines the environmental orientation of the workforce from the outset and therefore conditions the effectiveness of every subsequent practice.

## GHRM in Higher Education and the Public Sector

A small but growing literature examines GHRM in higher education specifically. [Al Doghan et al. \(2024\)](#), surveying 310 faculty and researchers at Egyptian public universities, found that green HRM influences green performance through the mediation of green culture and green values, indicating that cultural transmission rather than practice adoption is the operative mechanism in academic settings. [Zahrani \(2024\)](#), analysing 273 responses from a Saudi university, reported that environmental performance and green commitment mediate the relationship between GHRM and university sustainability. [Asfahani \(2023\)](#) found that servant leadership complements GHRM in driving competitive advantage and environmental performance in higher education institutions.

Three features of this literature are relevant here. First, it is uniformly perceptual and variance-based, relying on staff surveys analysed through structural equation modelling; none of these studies assess institutional implementation maturity directly. Second, all are situated in universities rather than in the ministries that govern them, leaving the policy tire unexamined even though it sets the conditions under which universities operate. Third, the mediation results are consistent in identifying culture, commitment, and values as the transmitting mechanisms, which converges with the barrier literature in suggesting that the practice-to-outcome link is contingent rather than automatic ([Akbar et al., 2024](#); [Javed et al., 2024](#)).

## Measuring Implementation Maturity

A methodological observation follows from the studies reviewed above. Almost without exception they measure GHRM as a latent construct indicated by employee agreement with statements about organizational practice and relate that construct to an outcome through regression or structural equation modelling. This design answers a question about association: whether organizations scoring higher on GHRM also score higher on environmental performance. It does not answer a question about level: whether a given organization has implemented enough of the practice to achieve a defined standard. The two questions are distinct, and only the second is actionable for a manager to decide where to allocate next year's budget.

Gap analysis addresses the second question by specifying a target state and measuring the distance from it, expressing the result on a bounded scale that permits comparison across constructs measured with the same instrument. Its comparative rarity in GHRM research is notable given its established use in quality management and operations, and given that the barriers literature repeatedly identifies the absence of implementation programmes and measurement systems as primary obstacles ([Sulistiawan et al., 2025](#)). An instrument that measures maturity directly addresses that obstacle rather than merely documenting it. [Yong et al. \(2020\)](#) move in this direction by mapping pathways to

sustainability in manufacturing organizations, showing that GHRM contributes through identifiable intermediate stages rather than as an undifferentiated input, which supports the case for stage-wise measurement.

## **Research Gap**

Four gaps follow from this review. First, GHRM and Green Shared Value have rarely been connected within a single framework, with most studies stopping at environmental performance or green behavior rather than proceeding to the triple bottom line. Second, institutional maturity and gap analysis approaches are largely absent, so the field lacks a means of measuring how far an organization has progressed toward a target state. Third, evidence from the public and educational sectors in the Arab and Iraqi context is scarce, with the literature dominated by private and industrial settings in developed and East Asian economies. Fourth, and cutting across the others, the relationship between practice adoption and value conversion has not been quantified, because the dominant designs measure association between variables rather than distance from a standard. The present study addresses all four.

## **METHODOLOGY**

### **Research Design**

The study adopted a case study methodology. This approach focuses on collecting data related to the phenomenon under study through observation, fieldwork, and direct meetings with senior administrative leaders, department heads, human resources managers, and employees involved in implementing green practices. These individuals were selected because they possess the most knowledge of the actual implementation of the practices under study. The design is diagnostic rather than inferential: its purpose is to establish the current state of implementation against a defined target, not to estimate the effect of one variable on another. A single-case design was appropriate because the constructs of interest are institutional properties observable only through direct access to policy documents, procedures, and the officials who administer them.

### **Instrument Development**

A checklist of 30 items was developed from the GHRM and Green Shared Value literatures, divided into two 15-item sections. The first section operationalizes five GHRM dimensions: green recruitment and selection, green training and development, green incentives and rewards, flexible work policies, and environmental diversity and inclusion. The second operationalizes the three dimensions of Green Shared Value: economic, environmental, and social. Each item was rated on a three-point implementation scale, with fully applied assigned weight of 3, partially applied a weight of 2, and not applied a weight of 1. [Table 1](#) sets out the construct architecture.

**Table 1: Construct architecture of the 30-item diagnostic checklist**

| Construct          | Items | Dimensions covered                                                                                        | Scale                                                     |
|--------------------|-------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| GHRM practices     | 15    | Green recruitment; green training; green appraisal and incentives; flexible work; diversity and inclusion | 3 = fully applied; 2 = partially applied; 1 = not applied |
| Green Shared Value | 15    | Economic value; environmental value; social value                                                         | 3 = fully applied; 2 = partially applied; 1 = not applied |

**Note:** Prepared by the author from the literature reviewed in Section 2. Maximum attainable score per construct = 45 (15 items × weight 3).

## Analytical Procedure

For each construct the weighted arithmetic mean was computed as the sum of item weights divided by the number of items. The compliance percentage was obtained by expressing this mean as a proportion of the maximum attainable weight of 3, and the gap as its complement. Formally,  $\text{compliance} = (\text{weighted mean} / 3) \times 100$ , and  $\text{gap} = 100 - \text{compliance}$ . Because both constructs use an identical scale and item count, their compliance percentages are directly comparable, and the difference between the two gaps constitutes the conversion deficit, defined as the extent to which value realization lags practice adoption. This comparability is the analytical property that motivates the gap-analysis design.

## RESULTS

### GHRM Implementation

Table 2 reports the item-level results of the GHRM checklist. Eight of the fifteen items were fully applied, six partially applied, and one did not apply at all. The compliance rate is 77.67% and the gap 22.33%, indicating that green practices are generally implemented but do not fully meet the target level.

**Table 2: Implementation of GHRM practices by item**

| No. | Item — the Ministry works on:                                     | Status            | Weight |
|-----|-------------------------------------------------------------------|-------------------|--------|
| 1   | Including environmental criteria in job descriptions              | Partially applied | 2      |
| 2   | Adopting interview questions that measure environmental awareness | Fully applied     | 3      |
| 3   | Attracting candidates with an environmental orientation           | Fully applied     | 3      |
| 4   | Implementing environmental training programs for employees        | Fully applied     | 3      |
| 5   | Training individuals on reducing resource consumption             | Fully applied     | 3      |
| 6   | Promoting recycling practices                                     | Partially applied | 2      |
| 7   | Creating incentives for environmental behavior                    | Partially applied | 2      |
| 8   | Linking performance to environmental goals                        | Fully applied     | 3      |
| 9   | Rewarding environmental initiatives                               | Partially applied | 2      |
| 10  | Implementing remote or flexible work                              | Not applied       | 1      |

|    |                                                                 |                   |        |
|----|-----------------------------------------------------------------|-------------------|--------|
| 11 | Reducing paper use through digital transformation               | Fully applied     | 3      |
| 12 | Involving employees in environmental initiatives                | Fully applied     | 3      |
| 13 | Supporting green innovation                                     | Partially applied | 2      |
| 14 | Promoting diversity and inclusion to support sustainability     | Partially applied | 2      |
| 15 | Involving all managerial levels in implementing green practices | Fully applied     | 3      |
|    | Weighted mean / compliance / gap (as reported)                  | 2.33 / 77.67%     | 22.33% |

**Note:** Source: Field data collected by the author. Weights: 3 = fully applied, 2 = partially applied, 1 = not applied. See Section 4.4 for verification of the reported summary statistics.

## Green Shared Value Realization

Table 3 reports the Green Shared Value checklist. The compliance rate is 69%, lower than that for green practices, while the gap is 31%, indicating a problem in converting green practices into practical value at the economic, environmental, and social levels.

**Table 3: Realization of Green Shared Value by item**

| No. | Item — the Ministry works on:                        | Status            | Weight |
|-----|------------------------------------------------------|-------------------|--------|
| 1   | Applying green practices to reduce costs             | Partially applied | 2      |
| 2   | Supporting sustainability to improve productivity    | Fully applied     | 3      |
| 3   | Using resources efficiently                          | Fully applied     | 3      |
| 4   | Supporting innovation to achieve economic value      | Fully applied     | 3      |
| 5   | Achieving a sustainable competitive advantage        | Partially applied | 2      |
| 6   | Reducing energy consumption                          | Fully applied     | 3      |
| 7   | Waste management and recycling                       | Not applied       | 1      |
| 8   | Reducing carbon emissions                            | Partially applied | 2      |
| 9   | Applying daily environmental practices               | Partially applied | 2      |
| 10  | Using eco-friendly technologies                      | Fully applied     | 3      |
| 11  | Improving employee well-being                        | Partially applied | 2      |
| 12  | Enhancing social responsibility                      | Fully applied     | 3      |
| 13  | Promoting a culture of sustainability                | Fully applied     | 3      |
| 14  | Participating in community environmental initiatives | Fully applied     | 3      |
| 15  | Achieving work-life balance                          | Partially applied | 2      |
|     | Weighted mean / compliance / gap (as reported)       | 2.07 / 69.00%     | 31.00% |

**Note:** Source: Field data collected by the author. Weights as in Table 2. See Section 4.4 for verification.

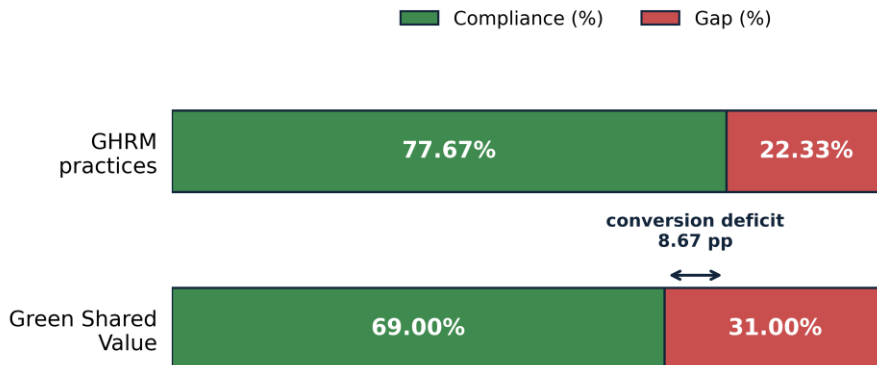
## Comparative Gap Analysis

Table 4 places the two constructs side by side, and Figure 2 displays the comparison graphically. The value gap of 31.00% exceeds the practice gap of 22.33% by 8.67 percentage points. This differential is the study's central empirical finding. It indicates that the Ministry is adopting green practices more successfully than converting them into shared value, and therefore that the binding constraint lies in the transmission mechanism rather than in practice adoption itself.

**Table 4: Comparative gap analysis of GHRM practices and Green Shared Value**

| Construct          | Weighted mean | Compliance (%) | Gap (%) | Interpretation      |
|--------------------|---------------|----------------|---------|---------------------|
| GHRM practices     | 2.33          | 77.67          | 22.33   | Acceptable adoption |
| Green Shared Value | 2.07          | 69.00          | 31.00   | Weaker realization  |
| Conversion deficit | 0.26          | 8.67 pp        | 8.67 pp | Value lags practice |

**Note:** Derived by the author from Tables 2 and 3. pp = percentage points. The conversion deficit is the difference between the two gaps and expresses the extent to which value realization lags practice adoption.



**Figure 2: Compliance and Gap by Construct**

**Note:** Prepared by the author from Table 4.

### Verification of Reported Summary Statistics

Two features of the reported summary statistics require explicit comment, recorded here rather than adjusted silently because the original scoring sheets were not available for re-derivation. First, recomputing the weighted mean directly from the item ratings in Table 2 yields  $37/15 = 2.467$ , corresponding to 82.22% compliance and a 17.78% gap, rather than the reported 2.33 and 77.67%. The same recomputation applied to Table 3 yields an identical 2.467 and 82.22%, rather than the reported 2.07 and 69.00%.

Second, and more consequentially, both checklists exhibit the same distribution of ratings, namely eight items fully applied, six partially applied, and one did not apply. Two instruments with identical item counts, identical weights, and identical rating distributions cannot mathematically produce different weighted means. The reported divergence between 2.33 and 2.07 is therefore inconsistent with the item-level data as tabulated. The most plausible explanations are a transcription error in the tick marks of one table or the application of an unreported weighting scheme. Because the substantive argument of the paper rests on the comparison between the two constructs, this inconsistency should be resolved before publication by re-deriving both indices from the original scoring sheets. The interpretation offered in Section 5 follows the reported values and would be strengthened rather than weakened if the underlying item ratings prove to differ, since a genuine difference in ratings would place the conversion deficit

on firmer evidential ground.

## Diagnostic Priorities

Table 5 sets out the specific gap areas identified through the diagnosis, together with their severity and the remediation mechanism proposed for each. Priorities are ordered by severity, with items rated not applied taking precedence over those partially applied.

**Table 5: Implementation Gaps and Remediation Priorities**

| No. | Gap area                                   | Severity                | Remediation mechanism                                                                                                       |
|-----|--------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1   | Waste management and recycling             | High (not applied)      | Adopt an institutional waste management and recycling system with defined requirements and follow-up indicators             |
| 2   | Flexible and remote work policies          | High (not applied)      | Issue a flexible work policy where the nature of the work permits, to reduce carbon footprint and improve work-life balance |
| 3   | Green incentives and rewards               | Medium (partial)        | Introduce a green incentive system linking rewards to contribution to environmental goals                                   |
| 4   | Green innovation                           | Medium (partial)        | Build an institutional programme to incubate environmental ideas and convert them into viable projects                      |
| 5   | Environmental footprint indicators         | Medium (partial)        | Develop indicators for emissions and resource consumption and incorporate them into performance evaluation                  |
| 6   | <b>Well-being linked to sustainability</b> | <b>Medium (partial)</b> | <b>Design a healthy green work environment explicitly linking well-being to environmental practice</b>                      |

**Note: Source:** Prepared by the author from the diagnostic findings. Severity reflects the item rating in Tables 2 and 3.

## DISCUSSION

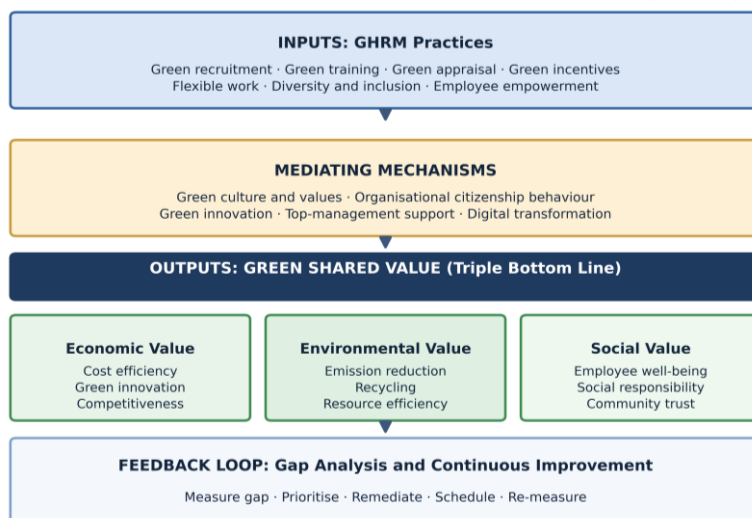
The Ministry has reached an acceptable level of adoption of GHRM practices, yet this achievement was not reflected in the desired outcome of Green Shared Value. This can be explained by the fact that the success of GHRM practices depends not only on their implementation but on their integration with strategic direction and monitoring systems. When practices are implemented as independent administrative measures, they deliver limited operational gains but fail to produce the institutional transformation necessary to generate sustainable value. The comparative gap analysis in Table 4 quantifies this: the conversion deficit of 8.67 percentage points is the measurable signature of practices operating without an institutional transmission mechanism.

The results also demonstrate that environmental training, digital transformation, and attracting environmentally conscious individuals are the most mature dimensions, suggesting growing awareness of the need to invest in human capital as a component of sustainability. This positive tendency is offset by weakness in dimensions requiring structural change, namely green incentive systems, environmental innovation support, and flexible work policies. The pattern is theoretically coherent. The mature dimensions are those a human resources department can implement within its own authority; the

weak dimensions all require cross-departmental budget authority, policy change, or measurement infrastructure. The gap is therefore not attributable to insufficient environmental commitment but to the limits of unilateral departmental action.

This reading aligns with the mediation findings from higher education literature. [Al Doghan et al. \(2024\)](#) found that green culture and values mediate the path from green HRM to green performance, and [Zahrani \(2024\)](#) identified environmental performance and green commitment as mediators of university sustainability. In both cases the transmitting mechanism is institutional rather than procedural. The present results are consistent with those findings and extend them: where the mediating mechanisms are underdeveloped, as the weak scores on innovation support and performance indicators suggest, practices accumulate without converting. [Sulistiawan et al. \(2025\)](#) reach the same conclusion from the barriers side, identifying the absence of a comprehensive implementation programme as a causal rather than consequential barrier.

Two findings warrant particular emphasis. The complete absence of waste management and recycling is striking given that these are the most visible and least technically demanding of environmental practices, and their absence alongside relatively strong training scores suggests that environmental awareness has been developed without corresponding operational infrastructure. The complete absence of flexible work is equally notable, since this practice requires no capital expenditure and would simultaneously reduce commuting emissions and improve work-life balance, the latter being among the weaker Green Shared Value items. That both zero-rated items sit in areas of low technical difficulty indicates a policy rather than capability constraint.



**Figure 3:** Proposed framework for transforming GHRM practices into Green Shared Value

**Note:** Prepared by the author. The mediating layer is the element the diagnosis identifies as underdeveloped.

Figure 3 presents the model that follows from this diagnosis. Inputs in the form of GHRM practices do not generate shared value directly; they are transmitted through mediating mechanisms comprising green culture and values, environmentally oriented behavior, innovation, management support, and digital infrastructure. The feedback loop, operationalized through periodic gap analysis, provides the measurement capacity whose absence the diagnosis identified as a binding constraint.

## CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

The study concludes that the Ministry possesses initial capabilities supporting the implementation of GHRM practices, with adoption reaching 77.67%. However, the achievement of Green Shared Value reached only 69%, reflecting limited capacity to translate sustainability efforts into tangible economic, environmental, and social outcomes. The central conclusion is therefore not that green practices are absent but that they are insufficiently converted: the value gap exceeds the practice gap by 8.67 percentage points, locating the constraint in transmission rather than adoption.

The study recommends establishing an integrated strategic framework for GHRM that reduces existing gaps and enhances the achievement of Green Shared Value, through more comprehensive policies, development of green reward systems, support for environmental innovation, implementation of waste management and recycling programmes, and adoption of clear environmental performance indicators. These measures should be sequenced rather than pursued simultaneously. In the short term, of up to six months, the Ministry should launch a waste management and recycling system, issue a pilot flexible work policy, and appoint a sustainability coordinator, since these address the two zero-rated items and require limited capital. In the medium term, of six to eighteen months, it should develop an environmental footprint dashboard, establish a green innovation incubation programme, and integrate environmental criteria into recruitment and evaluation, thereby building the measurement infrastructure whose absence currently prevents demonstration of returns. In the long term, of eighteen to thirty-six months, it should embed sustainability indicators in institutional performance evaluation, build external partnerships, and re-measure the gap to verify convergence.

For sectoral policy, the finding carries an implication beyond the Ministry itself. As the body governing Iraqi universities, the Ministry sets expectations for institutions that collectively educate the country's future professional workforce. A conversion deficit at the policy tier propagates downward, since universities are unlikely to institutionalize what their supervising ministry has not, and the environmental literacy of graduates is shaped by the practices they observe as much as by the curriculum they study.

Three implications follow. Theoretically, the study demonstrates that practice adoption and value realization are separable and separately measurable, and that gap analysis can detect a conversion deficit that variance-based designs cannot. Methodologically, it

offers a validated 30-item instrument transferable to comparable public institutions. Practically, it establishes that in resource-constrained public organizations the binding constraint on sustainability outcomes is frequently measurement and policy authority rather than environmental commitment. The study is limited by its single-case design, its reliance on a three-point rating scale that constrains variance, and by the arithmetic inconsistencies documented in Section 4.4, which should be resolved by re-derivation from the original scoring sheets. Future research should apply the instrument across multiple ministries and track the same indicators longitudinally to establish whether measured gaps close following intervention.

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