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Capitalising Green Spend Classifying Sustainability Investments in Middle Eastern Corporations

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Abstract

As sustainability becomes an integral part of corporate strategy, firms face increasing scrutiny over how they account for green investments. Under IFRS, sustainability-related expenditure must be classified either as capital expenditure or operating expenditure, a decision with direct implications for financial performance metrics, investor perceptions, and access to green finance. This paper explores how listed corporations across the Gulf Cooperation Council region approach this classification challenge using a desk-based review of publicly available Environmental, Social, and Governance and financial disclosures, regulatory materials, academic literature, and professional guidance.

The study applies a structured, three-step synthesis framework comprising thematic coding of sustainability initiatives, comparative analysis of classification patterns, and the development of a decision-support matrix. While renewable energy infrastructure and efficiency retrofits are commonly capitalised, other initiatives, such as carbon-capture pilots, SaaS emissions tools, and staff training, exhibit inconsistent treatments across jurisdictions and sectors.

The findings suggest that recognition choices are influenced not only by IFRS criteria but also by strategic priorities, governance structures, and regional policy signals. The study identifies key judgment zones and highlights the need for clearer internal frameworks and contextualised regional guidance. It concludes with practical implications for preparers, auditors, investors, and regulators seeking to improve the consistency and transparency of sustainability-related financial reporting in the Middle East.

Keywords: Sustainability Accounting, IFRS, CAPEX vs OPEX, ESG Reporting, Middle East, GCC, Classification of Green Investments, Judgment Zones, IFRS S1/S2, Carbon Accounting

Introduction

As sustainability shifts from a peripheral concern to a core component of corporate strategy, businesses worldwide are increasingly investing in renewable energy, energy-efficiency retrofits, carbon-reduction technologies, and digital infrastructure aligned with climate objectives. In the Middle East, particularly across the Gulf Cooperation Council (GCC), this momentum is reflected in large-scale national programmes such as Saudi Arabia's Vision 2030 and the UAE's Net Zero by 2050 strategy. These policy frameworks have accelerated corporate commitments to decarbonisation and driven significant investment in climate-aligned initiatives. Yet, while these projects are operationally transformative, they also raise pressing questions for financial reporting under International Financial Reporting Standards (IFRS). Specifically, companies must determine whether such expenditure qualifies for capitalisation or should be expensed; a decision that carries strategic, financial, and compliance implications. Existing IFRS guidance, primarily IAS 16 (Property, Plant and Equipment), IAS 38 (Intangible Assets), and IAS 37 (Provisions and Contingent Liabilities), provides general principles for recognition and measurement. However, these standards were not designed with modern sustainability initiatives in mind, and they offer limited clarity for novel, intangible, or servicebased investments.

The recent publication of IFRS S1 and S2 by the International Sustainability Standards Board (ISSB) marks progress toward global alignment in Environmental, Social, and Governance (ESG) disclosure. However, these standards focus on

transparency and risk reporting, not the accounting classification of sustainability-related outlays. As a result, companies face growing ambiguity, particularly for initiatives that are hybrid in nature, such as carbon offset programmes, software-as-a-service (SaaS) tools for emissions tracking, or early-stage green technology pilots. These judgment-intensive areas can lead to inconsistent treatments across firms and jurisdictions. This study investigates how listed companies in the GCC region are currently classifying sustainability investments, as either capital expenditure (CapEx) or operating expenditure (OpEx), and examines the strategic, regulatory, and governance factors that shape these decisions. The research is entirely desk-based, drawing on publicly available materials including annual reports, ESG disclosures, accounting publications, and regional policy documents. A structured three-phase analytical framework is applied: thematic pattern identification, comparative cross-firm analysis, and the development of a practical decision-support matrix for preparers and auditors.

For the purposes of this study, sustainability initiatives are defined as corporate programmes or investments aimed at reducing environmental impact, improving resource efficiency, or aligning operations with broader climate goals. These may range from tangible assets such as solar farms or Heating, ventilation, and air conditioning (HVAC) upgrades, to intangible investments like staff training or ESG software subscriptions, as well as transitional activities like carbon credit purchases and long-term renewable energy agreements. The form, timing, and benefits of such initiatives vary significantly, making classification under IFRS a complex and sometimes subjective process. By mapping current practice and identifying recurring judgment zones, the paper contributes to a clearer and more consistent accounting approach to sustainability investments in the Middle Eastern context. It offers preparers, auditors, regulators, and policymakers' practical insights into navigating the evolving interface between financial accounting and ESG strategy, at a time when transparency, comparability, and credibility in sustainability reporting are increasingly under the spotlight.

Problem Statement

As environmental and sustainability initiatives become embedded within corporate strategies, businesses are under increasing pressure to reflect these investments accurately in their financial reporting. This pressure is particularly pronounced in the Middle East, where governments have launched ambitious national climate strategies and sovereign ESG frameworks. In response, many firms have accelerated spending on renewable energy infrastructure, energy-efficiency improvements, carbon-reduction technologies, and sustainability-related digital tools. While these expenditures are central to long-term transformation, their accounting treatment under IFRS remains unclear in practice.

At present, the IFRS sustainability framework is disclosure-oriented, leaving a gap in practical classification guidance for sustainability expenditures. Instead, preparers must interpret existing standards such as IAS 16 (Property, Plant and Equipment), IAS 38 (Intangible Assets), and IAS 37 (Provisions) to determine whether sustainability initiatives should be capitalised or expensed. This leads to significant judgment, especially for investments that fall outside traditional asset definitions, such as pilot-phase carboncapture projects, software-as-a-service (SaaS) climate tools, or training programmes. The recent release of IFRS S1 and S2 has improved disclosure expectations but has not resolved recognition or classification challenges.

Within the Middle Eastern context, additional complexities emerge. GCC firms operate in environments characterised by diverse regulatory expectations, evolving ESG reporting mandates, and varying levels of state support for sustainability through subsidies, grants, and tax incentives. Moreover, considerations around Sharia compliance and regional accounting interpretations further complicate standard application. The lack of uniform treatment across similar sustainability initiatives not only creates comparability issues but also affects key performance metrics, investor confidence, and access to climate finance.

This paper addresses the gap by examining how GCC-listed corporations classify common sustainability investments under IFRS, and what strategic, regulatory, and governance factors influence those decisions. It seeks to bring clarity to an increasingly material accounting issue with regional implications for standard-setting, disclosure policy, and corporate financial strategy.

Objectives

This study aims to examine how sustainability-related expenditures are classified under IFRS by corporations operating in the Middle East, with a particular focus on the GCC region. As firms increasingly pursue climate-aligned initiatives, ranging from solar installations and energy-efficiency upgrades to digital emissions tracking tools and carbon-offset programmes, the question of whether these outlays are recognised as CapEx or OpEx has become materially significant.

The primary objective is to understand how IFRS recognition and measurement principles, drawn from standards such as IAS 16, IAS 38, and the IFRS Conceptual Framework, are applied to sustainability investments in practice, particularly in ambiguous or judgment-intensive cases. In doing so, the study investigates how classification decisions may be influenced not just by accounting definitions, but also by strategic intent, regulatory pressures, governance practices, and region-specific considerations such as Sharia compliance and national subsidy schemes.

Specifically, the paper seeks to:

- Identify the most common types of sustainability initiatives reported by GCC-listed companies.

- Analyse how these initiatives are classified (CapEx vs OpEx) based on publicly available disclosures and desk-based review of secondary sources.
- Highlight recurring judgment zones where classification outcomes vary, such as Research & Development-style (R&D) pilots, SaaS-based sustainability tools, and training programmes.
- Assess the strategic, financial, and reporting implications of classification choices, including impacts on Key Performance Indicators (KPIs) like Earnings Before Interest Tax Depreciation and Amortization (EBITDA), Return on Invested Capital (ROIC), and cash flow profiles.
- Develop a practical decision-support framework to guide preparers in applying IFRS to sustainability investments, grounded in thematic synthesis and comparative analysis.
- Explore the regional regulatory landscape and its influence on accounting treatments, drawing on GCC stock exchange ESG guidelines, tax policy reports, and professional publications.

Together, these objectives support the broader goal of enhancing clarity, consistency, and comparability in sustainability-related financial reporting within the Middle Eastern context.

Literature Review

The intersection of sustainability and financial accounting has emerged as a key area of scholarly interest, particularly in the context of climate-aligned investments and corporate environmental responsibility. A growing body of literature has explored how sustainability expenditures are recognised, disclosed, and interpreted within financial statements, and what challenges preparers face in aligning these with existing reporting frameworks such as IFRS. This review situates the current study within that discourse, highlighting the treatment of environmental expenditures, the limitations of IFRS standards, and the implications for comparability, transparency, and strategic alignment, particularly in the context of the Middle East market.

Beattie et al. (2021) offer a comprehensive review of how firms account for environmental and sustainability costs, identifying a wide gap between economic substance and accounting form. They argue that existing standards often force sustainability initiatives into legacy accounting categories, such as tangible fixed assets or provisions, without reflecting their long-term, cross-functional value. This view is especially relevant for investments in sustainability software, employee training, or carbon offset schemes, which often fail to meet the recognition criteria under IAS 16 or IAS 38, yet carry clear strategic significance [1].

The issue of comparability across firms and sectors has also been explored in depth. Boiral and Henri (2017), in a study of Global Reporting Initiative (GRI) disclosures among mining companies, found wide inconsistencies in how sustainability performance is presented, both quantitatively and qualitatively [2]. These disparities are often driven by differences in accounting classification practices and the voluntary nature of many sustainability disclosures. The lack of harmonised treatment hinders benchmarking, investor decisionmaking, and regulatory oversight, concerns that are echoed in the Middle Eastern context, where ESG reporting is still in varying stages of maturity across the GCC states.

Cheng et al. (2014) focus on the broader paradigm shift introduced by integrated reporting, arguing that existing financial standards are insufficient for capturing value creation from non-financial capital [3]. While the International Integrated Reporting Framework (IIRF) encourages a holistic view of corporate performance, its principles are not embedded in IFRS recognition and measurement rules. This creates a conceptual mismatch: firms are encouraged to demonstrate long-term environmental value but must do so within accounting systems focused on short-term, transaction-based recognition. This tension is particularly acute in sustainability pilot programmes, R&D-style carbon projects, or digital investments where benefits are uncertain or indirect.

Hahn and Kühnen (2013) provide a meta-analysis of determinants of sustainability reporting and emphasise the importance of institutional context. Regulatory environments, industry norms, and stakeholder expectations significantly influence both disclosure quantity and quality [4]. Their findings support the view that accounting treatment is not just a technical exercise, but also a reflection of broader strategic, social, and institutional dynamics. This is particularly relevant in the GCC region, where government visions, regulatory guidance from stock exchanges (e.g., Tadawul, ADX, Boursa Kuwait), and state-led ESG mandates play a formative role in shaping reporting practice.

The recent introduction of IFRS S1 and S2 by the ISSB marks a notable development in global efforts to improve ESG reporting comparability. However, these standards currently focus on disclosure, not recognition or measurement. As such, they leave unresolved many of the core challenges facing preparers, namely, whether and how to capitalise sustainability initiatives. Without specific guidance, firms must continue to rely on principle-based interpretations of existing IFRS standards. This opens the door to subjective treatment,

inconsistencies across firms, and strategic manipulation of financial outcomes through classification choices.

The academic literature also suggests a growing concern with the strategic implications of sustainability classification. As noted in Beattie et al. (2021), the decision to capitalise or expense sustainability costs affects not only profitability and asset bases, but also key investor metrics like EBITDA, ROIC, and leverage ratios. In a region like the Middle East, where

firms are increasingly exposed to international capital markets and ESG-linked financing instruments, these classification choices carry material weight [1].

In summary, the literature points to three major gaps that this paper seeks to address:

- The absence of an IFRS-based framework for classifying sustainability investments beyond voluntary disclosures.
- The practical difficulty in applying existing standards to emerging sustainability categories, especially those involving intangibles or uncertain future benefits.
- The lack of region-specific studies focusing on how institutional, regulatory, and strategic dynamics shape sustainability accounting in the Middle East.

By integrating these insights into a structured desk-based analysis of GCC-listed companies, this study contributes to the existing body of knowledge by proposing a regionally grounded, IFRS-consistent framework for classifying sustainability investments in a more consistent and decision-useful manner.

Methodology

Here is the structured, three-stage synthesis process used for this paper:

- **Thematic Analysis:** Identification and categorisation of sustainability initiative types based on disclosures and secondary literature.
- **Comparative Analysis:** Cross-sectoral and cross-jurisdictional comparison of classification tendencies, highlighting patterns and divergence.
- **Framework Development:** Design of a conceptual decision-support tool to guide IFRS-based classification of sustainability investments in the GCC context.

This multi-layered process allowed the paper to remain interpretive while grounded in observed practice. Where classification tendencies varied (e.g., SaaS tools being treated differently across firms), the judgment zones were flagged as areas of regulatory or conceptual ambiguity.

Research Approach

This study adopts a qualitative, desk-based research approach grounded in thematic synthesis and interpretive analysis. Rather than relying on primary data collection, the research draws exclusively on secondary sources including publicly available ESG and financial reports, IFRS literature, regional regulatory publications, GCC tax guidance, and professional insights from the Big Four accounting firms. The objective is to investigate how corporations operating in the Middle East, particularly those listed on GCC exchanges, classify sustainability-related expenditures under IFRS.

The IFRS sustainability standards currently focus on transparency and risk disclosure rather than on the accounting treatment of ESG-related expenditures, a key emphasis of this study is on how existing accounting frameworks are interpreted in practice when firms are faced with novel climate-related investments. This approach enables the paper to explore variation, ambiguity, and emerging judgment areas without needing access to internal company records or interviews. The focus remains on disclosure narratives, policy notes, and observable reporting trends as reflected in published documents.

Data Sources and Collection

Source Selection Criteria

The principal evidence base consists of four interlocking sets of documents:

Corporate Filings (2021–2024)

Audited financial statements, management reports and stand-alone ESG or sustainability reports for a number of GCC companies. These provide the primary data on recognition choices, note disclosures and KPI presentation.

Academic Literature

Peer-reviewed articles from journals such as *Accounting, Organizations and Society*, *The British Accounting Review* and *Journal of Cleaner Production* that investigate IFRS capitalisation criteria, environmental cost accounting and the financial impact of green investments. Their theoretical insights inform the initial coding framework and offer benchmarks for international comparison.

Regulatory Materials from Middle Eastern Markets

Including the Saudi Exchange ESG Disclosure Guidelines (2023), UAE Securities and Commodities Authority Sustainable Finance Roadmap (2022), Qatar Financial Markets Authority ESG Reporting Guidelines (2023) and Bahrain Bourse ESG voluntary disclosure framework (2022) [5-7]. These texts specify local expectations that can influence preparer behaviour.

GCC tax Policy Reports

For example, the Unified GCC VAT Agreement (2016) and subsequent national VAT guides, the UAE Corporate Tax Law (2023) and Saudi ZATCA Green Incentives White Paper (2024). They offer context on deductibility, capital-allowance

regimes and green-tax incentives that may sway CapEx vs. OpEx decisions.

Professional Publications

From the Big Four firms (PwC, EY, KPMG, Deloitte) covering ESG accounting, classification challenges, and regional implementation practices, e.g., PwC Middle East – “Green Finance and Tax Incentives 2024” and annual ESG Reporting in the GCC surveys. KPMG Lower Gulf – “GCC Sustainability Reporting Benchmarking Survey 2023.” EY MENA – technical updates on IFRS S1/S2 implementation and sector reports on decarbonisation investment. Deloitte Middle East – “Energy Transition and the CFO Agenda 2024” and regional IFRS interpretation bulletins. These sources were selected to ensure coverage of both the theoretical accounting framework and the practical regulatory and strategic context of the GCC.

Classification Patterns

Publicly disclosed ESG and financial reports were thematically analysed to identify recurring types of sustainability initiatives. These include:

- Renewable energy infrastructure (e.g., solar farms, wind turbines)
- Energy-efficiency retrofits (e.g., lighting and HVAC upgrades)
- Circular economy investments (e.g., grey-water systems, recycling plants)
- Carbon-capture and R&D-style pilots
- SaaS-based carbon tracking and emissions platforms
- Capability-building and training programmes
- Offsets and credit schemes

Where disclosure permitted, the accounting treatment (CapEx or OpEx) of these initiatives was noted. In the absence of explicit classification, interpretive inferences were drawn from notes to the financial statements, segment reporting, or management commentary. These were then cross-referenced with regional tax guidelines, Big Four practitioner insights, and IFRS classification principles.

While this study draws on a review of sustainability disclosures from various publicly listed companies across the GCC, the analysis is qualitative in nature. No statistical sampling or quantitative modelling was performed. Instead, classification patterns were derived from a thematic synthesis of public financial and ESG disclosures, supported by comparative reading across peer firms and sectors. Where classification treatment was not explicitly disclosed, inferences were based on contextual language, project descriptions, and supporting narrative disclosures in sustainability reports, investor presentations, or financial commentary.

Analytical Method Framework Dimensions

To analyse how classification decisions interact with broader strategic and reporting considerations, the paper employed a four-dimensional analytical lens:

- **Strategic Decision-Making:** Evaluating whether the investment is linked to a firm’s climate roadmap, ESG strategy, or long-term transformation plan.
- **Financial Performance Impact:** Assessing how the classification affects key performance indicators such as EBITDA, ROIC, and asset turnover ratios.
- **Governance and Transparency:** Examining whether the accounting treatment is disclosed clearly and whether internal governance (e.g., audit committee involvement) is referenced.
- **Regulatory and Institutional Context:** Considering the influence of national ESG mandates, subsidies, and tax policy on accounting choices.

This framework supports a holistic understanding of sustainability investment classification beyond technical IFRS compliance, enabling the paper to draw out regionally nuanced insights.

Judgment Zones

The study paid particular attention to areas where classification under IFRS is less clear-cut.

Common judgment zones identified include:

- **R&D-style Pilots:** Carbon-capture or biochar projects, often grant-funded and precommercial.
- **SaaS Platforms:** Subscription-based emissions dashboards and sustainability tracking tools with unclear asset longevity or ownership.
- **Training and Capability-building:** Programmes designed to improve climate literacy or operational sustainability, often embedded in operating budgets.
- **Power Purchase Agreements (PPAs):** Contractual arrangements that may imply embedded assets, depending on control and benefit structures.

In these cases, the literature, professional guidance, and public disclosures frequently suggest divergence in interpretation. The paper examines the basis for each treatment using the IFRS Conceptual Framework (e.g., control, future economic benefit, probability, reliability of measurement) and compares how firms across the region handle these edge cases.

Reliability and Validity

To enhance analytical reliability, the study relied on triangulation across multiple source types, academic, regulatory, and professional. Company-level disclosures were only interpreted when sufficient detail was available. To mitigate bias, classification conclusions were cross-checked with practitioner white papers and regulatory position statements. Where ambiguity persisted, no definitive classification was asserted; instead, the paper highlights the uncertainty and offers guiding considerations based on IFRS principles. Although the research does not involve direct interaction with firms, its use of publicly verifiable, professionally reviewed disclosures enhances transparency and replicability.

Limitations

This study is inherently limited by its reliance on secondary, publicly available information. In many cases, sustainability disclosures lack sufficient granularity to confirm precise accounting treatments, requiring cautious inference. Additionally, while the sample of companies provides regional breadth, it may not capture the full diversity of accounting practices or reflect evolving internal policies not yet visible in public disclosures. Finally, the absence of primary data means that motivations, internal deliberations, and auditor interpretations are outside the scope of this analysis.

Ethical Considerations

As a desk-based study using publicly available information, this research did not require ethics approval or raise human subject concerns. All data was sourced from published materials already in the public domain and is used for academic and policy-oriented analysis only. No confidential or proprietary information was accessed or disclosed.

Findings

This section presents the findings of the structured desk-based analysis, which identifies interpretive trends and thematic patterns in how GCC-listed companies account for sustainability-related expenditures. Rather than employing statistical quantification, the analysis identifies thematic trends and interpretive patterns across firms and sectors.

The results are organized around three key dimensions: (1) the classification of sustainability initiatives, (2) regional variations in accounting practices, and (3) areas of ambiguity, termed judgment zones, where the application of IFRS principles varies. Together, these findings offer insight into how GCC-based companies approach the recognition of sustainability-related expenditures and where inconsistencies or gaps in practice are most evident.

For the purposes of this study, judgment zones refer to categories of sustainability-related expenditure where the application of IFRS recognition and measurement principles, particularly under IAS 16 and IAS 38, is ambiguous due to the novelty, intangibility, or hybrid nature of the investment. These are areas where economic substance is not easily mapped to existing accounting categories, and preparers must exercise significant discretion in determining whether expenditures should be capitalised or expensed. Judgment zones typically emerge in initiatives that lack physical form, offer uncertain or indirect future benefits, or are delivered through third-party arrangements, such as SaaS-based carbon tracking tools, carbon offset purchases, or early-stage decarbonisation pilots.

Classification Patterns by Initiative Type

Thematic coding identified seven dominant categories of sustainability initiatives disclosed by listed firms across the GCC region:

- Renewable Energy Installations (e.g., solar farms, solar panels)
- Energy-Efficient Retrofits (e.g., lighting upgrades, HVAC replacements)
- Carbon-Capture and Circular Economy Projects (e.g., grey water systems, pilot biochar units)
- Sustainability-Related Software Tools (e.g., carbon tracking dashboards)
- Capability Building (e.g., internal climate training programmes)
- Carbon Offsets and Environmental Credits
- Third-Party Power Purchase Agreements

Across these categories, classification treatment varied by asset type, project maturity, and the nature of control and benefit.

- Infrastructure-heavy Projects, such as solar installations and HVAC retrofits, were almost uniformly treated as capital expenditure. These investments typically met the recognition criteria under IAS 16 as tangible assets generating probable future economic benefits.
- Digital Tools, such as SaaS-based emissions trackers, were more inconsistently treated. While some firms capitalised development costs of in-house tools under IAS 38, others expensed ongoing subscriptions or licence fees as OpEx.
- Training Programmes, even those with long-term cultural or operational value, were consistently expensed.
- Carbon-capture Pilots and offset Schemes revealed mixed treatment, largely depending on the extent of commercial integration and cost capitalisation policies.
- This variation confirms the hypothesis that recognition of sustainability initiatives is not uniform, particularly in areas lacking tangible deliverables or clearly defined asset ownership.

Regional Patterns and Regulatory Influence

A comparative review of sustainability and financial disclosures revealed regional nuances in classification practice:

- **Saudi Arabia:** Firms demonstrated greater consistency in capitalising renewable infrastructure, influenced by explicit ESG reporting mandates from Tadawul and broader alignment with Vision 2030 initiatives. Some firms disclosed subsidies received under the Saudi Green Initiative, which in turn influenced the treatment of partially funded assets.
- **UAE:** Disclosure narratives were more detailed, particularly among companies participating in Abu Dhabi's Clean Energy Programmes. However, even within this context, classification of software and offsets remained ambiguous, with only a few companies detailing their IFRS rationale.
- **Qatar and Kuwait:** Firms generally provided less transparency in their classification methods, with minimal explanation of accounting treatments in ESG reports. Nonetheless, capitalisation of retrofit projects was common in the real estate and utility sectors.
- **Bahrain and Oman:** Fewer sustainability disclosures were observed, but where present, they were mostly narrative-driven and lacked accounting clarity.

These regional patterns reflect not only differences in regulatory pressure but also in access to state subsidies, tax incentives, and sector-specific governance practices. The presence or absence of public ESG guidance in each jurisdiction appeared to correlate with the maturity and specificity of accounting treatment.

Strategic Framing and Governance Oversight

A notable finding across high-disclosing firms was the influence of strategic positioning and governance involvement on classification outcomes. Where sustainability initiatives were clearly embedded in long-term business models, such as clean energy commitments or climate-transition roadmaps, there was a stronger tendency to capitalise the related expenditure. This suggests that beyond technical IFRS application, classification decisions may be shaped by internal narratives and board-level ESG engagement. For example, two Saudi industrial firms explicitly referenced their sustainability councils and audit committees in the development of classification policy for climate-related investments. These firms provided clearer rationale for capitalisation based on expected ROI, asset life, and internal control reviews.

Identified Judgment Zones

The most prominent areas of interpretive variability, judgment zones, were concentrated in the following:

- **SaaS Sustainability Platforms:** Where licence terms, ownership rights, and system integration varied, so too did accounting treatment. Some firms capitalised configuration costs under IAS 38, while others expensed everything under service contracts.
 - **Carbon-Capture R&D Projects:** Often disclosed as strategic pilots, these initiatives presented the clearest classification ambiguity. Firms differed on whether to capitalise setup costs or treat them as speculative expenses with no reliably measurable future benefit.
 - **Third-Party PPAs:** These were occasionally treated as lease-like arrangements under IFRS 16, but this was rare. Most firms either did not explicitly disclose the accounting classification of such initiatives or treated them as operating expenditures embedded within procurement or service contracts, resulting in off-balance sheet treatment.
 - **Environmental Offsets:** Treatment varied widely. Some companies treated them as inventory (for later resale or application), while others expensed purchases as part of annual ESG cost lines.
- This inconsistency underscores the need for enhanced guidance, either through firm-level policies, industry position papers, or region-specific interpretive frameworks.

Decision-Support Matrix for Classifying Sustainability Initiatives

To guide preparers facing classification uncertainty, table 1 presents a decision-support matrix synthesising common sustainability initiatives observed in the GCC region. For each category, typical accounting treatments are outlined alongside relevant IFRS references, key areas of professional judgment, and suggested disclosure practices.

Table 1: Decision-Support Matrix

Initiative Type	Typical Treatment	Relevant IFRS	Key Judgment Considerations	Disclosure Recommendation
Solar PV or Wind Infrastructure	CapEx	IAS 16	Direct control, measurable economic benefit, and physical form support asset recognition.	Disclose asset type, depreciation method, useful life.
HVAC or Energy-Efficient	CapEx	IAS 16	May require distinction between upgrade vs. repair. Materiality and enhancement of value are critical.	Clarify scope and rationale for capitalisation.

Carbon Capture Pilots (R&D Phase)	OpEx / CapEx (Hybrid)	IAS 38 / IAS 16	Depends on stage: research is expensed; development phase may qualify for capitalisation if criteria are met.	Disclose assessment basis and phase of project.
SaaS-Based Carbon Tracking Tools	OpEx / CapEx (Hybrid)	IAS 38 / IFRIC 12 analogies	Lacks ownership; if part of internal system development, partial capitalisation may apply.	Disclose contract type, purpose, and treatment logic.
Carbon Offset Purchases	OpEx (generally)	IAS 38 / IFRS S2	Lacks control and future economic benefit under current frameworks; often considered compliance cost.	Disclose policy rationale; refer to sustainability goals.
Renewable Energy PPAs	CapEx / Off-Balance	IFRS 16 / IFRS 9	May qualify as right-of-use asset or financial instrument depending on structure. Contract terms are critical.	Present clear justification; summarise PPA terms.
Employee Sustainability Training	OpEx	IAS 38	Lacks identifiability and control; typically treated as expense unless linked to internal development project.	Link to broader sustainability strategy.
Green Building Certifications	OpEx / CapEx	IAS 16 / IAS 38	If linked to capitalised projects or asset value enhancement, partial capitalisation may apply.	Clarify treatment and benefit attribute.

Discussion

The findings of this study reveal a significant divergence in how Middle Eastern corporations classify sustainability-related expenditures under IFRS. These discrepancies mirror global trends, particularly in judgment-intensive areas such as early-stage carbon capture pilots, subscription-based ESG tools, and third-party power purchase agreements, where the economic substance of the investment is not easily mapped to the asset definitions under IAS 16 or IAS 38. This reinforces concerns raised by Beattie et al. (2021), who observed that traditional accounting standards often fail to capture the strategic and long-term value of sustainability-related spending, leading to inconsistent or overly conservative treatment [1].

Further, the study confirms Hahn and Kühnen's (2013) proposition that the determinants of sustainability reporting, and by extension, accounting treatments, are heavily influenced by both internal governance dynamics and external regulatory pressures. In the GCC, companies operating in jurisdictions with stronger ESG mandates (such as Saudi Arabia and the UAE) demonstrated greater disclosure clarity and more defensible classification decisions [4]. Conversely, firms in markets with less developed sustainability reporting frameworks tended to provide minimal explanation for capitalisation judgments, reinforcing the literature's call for harmonised policy infrastructure.

The integration of sustainability into strategic planning also appears to play a critical role in classification outcomes. Where ESG initiatives were explicitly framed within long-term value creation plans, often backed by board-level oversight, firms were more likely to capitalise expenditures. This aligns with Boiral and Henri (2017), who argue that sustainability performance is only truly comparable when it is embedded in an organisation's governance structures and internal control systems [2].

Moreover, these classification choices carry significant implications for financial metrics and stakeholder perception. The decision to capitalise or expense sustainability investments affects EBITDA, asset profiles, and the attractiveness of a firm's ESG narrative to investors. As Cheng et al. (2014) note, integrated reporting frameworks must evolve to reflect not only the environmental or reputational benefits of such initiatives, but also their financial impact [3]. The lack of alignment between sustainability disclosures and underlying accounting treatments observed in this study underscores a critical credibility gap.

In summary, the literature on sustainability accounting underscores the same themes revealed by this study: accounting for ESG is no longer a technical afterthought but a central element of corporate strategy, governance, and market positioning. The absence of IFRS guidance on classification creates real-world ambiguity, and the role of preparers, auditors, and regulators in bridging this gap will shape the next phase of corporate sustainability practice in the Middle

East.

Interpreting IFRS in a Sustainability Context

At its core, IFRS requires that expenditures be capitalised only when they meet specific criteria: control over the asset, future economic benefits, and reliable measurement. These principles, articulated across IAS 16 and IAS 38, were designed in an industrial era and are arguably ill-equipped to accommodate the intangible, emergent, or hybrid nature of many sustainability investments. The data suggests that preparers often resort to analogies, treating a carbon dashboard like other intangible software, or treating a circular economy pilot as R&D expenditure, but these analogies are inconsistently applied.

This inconsistency aligns with Beattie et al. (2021), who noted that accounting treatments often reflect form over substance, with sustainability initiatives forced into inadequate legacy categories. The same theme emerges here: where the economic rationale for capitalisation exists (e.g., long-term emissions reduction or regulatory alignment), it is not always reflected in the accounting treatment due to perceived uncertainty in benefits or asset control [1].

Institutional Influence and Regulatory Pressure

The GCC context brings additional layers of complexity. ESG mandates are emerging across the region, but they are uneven in scope, enforcement, and alignment with international standards. In jurisdictions like Saudi Arabia and the UAE, where regulatory agencies have issued ESG reporting guidelines, firms show a higher propensity to articulate and justify their accounting treatments. However, even in these jurisdictions, ambiguity persists in judgment-heavy categories.

State-led climate initiatives, subsidy programmes, and tax incentives also play a role. For instance, where a firm receives partial state funding for a solar project, capitalisation becomes more straightforward. In contrast, grant-funded R&D pilots without clear monetisation pathways are more likely to be expensed. These dynamics highlight the interaction between policy signals and accounting outcomes, a key theme in Hahn and Kühnen's (2013) analysis of sustainability reporting determinants [4].

Moreover, some firms appear to use capitalisation as a signal of strategic commitment, particularly when sustainability initiatives are embedded in long-term transition plans. Where audit committees and ESG subcommittees are actively involved, there is greater transparency and consistency in classification rationale. This suggests that governance quality, as much as technical guidance, shapes classification decisions in practice.

Impact on Financial Metrics and Strategic Positioning

The accounting treatment of sustainability expenditure is not just a compliance issue, it directly affects financial optics. Classifying an initiative as CapEx can improve EBITDA by deferring expense recognition, increase reported assets, and support ESG-linked financing metrics. Conversely, immediate expensing can signal lower short-term profitability but arguably more conservative accounting.

In the GCC context, where many firms are engaging international investors or pursuing ESG-linked bonds, these decisions have real implications. The findings align with Cheng et al. (2014), who argue that accounting frameworks must evolve to reflect value creation beyond traditional capital, or risk undermining comparability and investor confidence [3].

At the same time, overly aggressive capitalisation without sufficient justification can raise audit and regulatory red flags, particularly as IFRS S1 and S2 begin to embed more rigorous disclosure expectations around sustainability-related risks and opportunities. While these standards do not yet address recognition and measurement, they signal a shift toward integrated thinking and holistic financial stewardship.

Need for Interpretive Guidance

The presence of recurring judgment zones, carbon pilots, digital tools, and PPAs, points to a pressing need for clearer guidance. This could take the form of:

- Sector-specific application notes under existing IFRS standards.
- Regional interpretive publications aligned with GCC regulatory expectations.
- Industry whitepapers led by professional bodies or the Big Four firms providing benchmark treatment for common sustainability initiatives.

Absent such guidance, preparers are left to navigate ambiguity using inconsistent analogies, which undermines the comparability and reliability of financial reporting. Moreover, the lack of disclosure around the basis of classification, observed in many firms, limits stakeholder understanding of how sustainability strategy aligns with financial treatment.

Implications

The findings of this study hold several important implications for key stakeholders involved in financial reporting, sustainability strategy, regulation, and capital allocation in the Middle East. While IFRS S1 and S2 provide a structured framework for sustainability-related disclosures, they stop short of offering specific guidance on recognition and

measurement of green investment. In the GCC context, where national climate goals are accelerating corporate green investment, this ambiguity has operational, financial, and reputational consequences. Below, we outline the implications for four primary stakeholder groups: preparers, auditors, regulators, and investors.

Implications for Preparers

The most immediate implication is the need for stronger internal frameworks to guide the classification of sustainability-related spending. Given that many initiatives, such as carbon-capture pilots or SaaS-based tracking tools, sit in judgment zones, preparers must apply IFRS principles with clear documentation of assumptions and rationale. Inconsistent treatment of like-for-like projects across peer firms suggests a lack of shared internal policies or decision trees.

Firms operating in the GCC should consider developing formal accounting policies specific to sustainability investments, linked to their climate strategy and endorsed by audit committees. These policies can establish criteria for determining when future benefits are “probable” and when control over an asset exists, critical considerations under IAS 16 and IAS 38. Preparers should also anticipate scrutiny from lenders and ESG rating agencies, particularly as classification impacts key metrics used in sustainable finance covenants.

Implications for Auditors

Auditors face increasing pressure to evaluate sustainability-related recognition choices not just for technical compliance, but for consistency with strategic disclosures and integrated reporting narratives. The variability observed in classification suggests that audit oversight is uneven or insufficiently calibrated for green investments.

The Big Four firms operating in the region may need to expand their ESG accounting playbooks to include common sustainability initiatives and treatment benchmarks. Enhanced documentation requirements and greater emphasis on disclosure of accounting policy judgments will improve the defensibility of classification decisions. Auditors should also encourage clients to disclose the IFRS rationale for their sustainability classifications, especially when expenditure is material or diverges from industry norms.

Implications for Regulators and Policy Makers

The study highlights an urgent need for regionally contextualised interpretive guidance on the application of IFRS to sustainability expenditures. Regulatory bodies, such as the Saudi Capital Market Authority, UAE Securities and Commodities Authority, and Qatar Financial Markets Authority, can play a catalytic role in issuing classification guidance notes or sectoral position papers. These could be developed in coordination with national green finance platforms or sustainability councils [6].

In the longer term, regulators may also consider mandating enhanced narrative disclosure around the accounting treatment of material sustainability projects, similar to existing requirements under IFRS for critical judgments and estimates. Doing so would reduce information asymmetry and improve comparability across the market.

Implications for Investors and ESG Analysts

For institutional investors and ESG analysts, this study underscores the need to look beyond headline disclosures and scrutinise the accounting treatments underlying reported sustainability progress. Capitalisation of green investments can inflate profitability and asset bases, affecting valuation models and risk assessments. Conversely, conservative expensing may mask strategic progress if not properly explained.

Investors should demand transparency on the classification logic for material ESG expenditures and engage in dialogue with issuers on how IFRS criteria are applied. Moreover, ESG data providers may need to refine their assessment models to account for classification variability, especially when comparing companies across sectors or jurisdictions.

Implications for Standard Setters

The ISSB and IASB may find value in reviewing how recurring sustainability investment categories are treated across sectors and regions. While principle-based standards remain appropriate, authoritative interpretation, such as agenda decisions, staff papers, or illustrative examples, could reduce ambiguity. Key candidates include:

- Treatment of carbon offsets and compliance credits;
- SaaS environmental platforms;
- Sustainability-linked R&D initiatives.

Overall, the study underscores that reliable sustainability reporting is not only about disclosure but also about recognition, measurement, and alignment. Strengthening classification discipline will enable more meaningful ESG reporting, foster capital market confidence, and support the region’s strategic transition toward a low-carbon economy.

Recommendations

To address the classification ambiguity surrounding sustainability-related investments in the GCC, this paper offers the following actionable recommendations:

- **Develop Internal Guidance Frameworks:** Preparers should establish structured accounting policies for sustainability

initiatives, aligned with IFRS principles and overseen by audit committees.

- **Enhance Disclosure Transparency:** Firms should explicitly disclose the IFRS rationale for classification decisions, especially for material or judgment-intensive initiatives.
- **Create Regional Position Papers:** Regulatory authorities in the GCC, in collaboration with standard-setters and the Big Four firms, should publish interpretive notes or classification benchmarks for common ESG investments.
- **Strengthen Audit Oversight:** Audit firms should expand their ESG accounting playbooks and require enhanced documentation of classification judgments under IAS 16, IAS 38, and related standards.
- **Educate Stakeholders:** Workshops, regional forums, and continuing professional development programmes should incorporate IFRS-based classification training for sustainability investments, tailored to Middle Eastern business contexts.

Conclusion

This paper explored how sustainability-related investments are classified under IFRS by companies operating in the Middle East, particularly within the GCC region. The issue is both timely and material, as firms rapidly scale up climate-aligned spending in response to national net-zero targets, investor expectations, and regulatory ESG mandates. The current IFRS sustainability regime focuses on what to report, but not how to account for the underlying economic transactions thus leaving firms to interpret general recognition principles when deciding whether to capitalise or expense these expenditures.

Through a desk-based thematic analysis of various public company disclosures, supported by secondary literature and regional regulatory guidance, this study identified widespread divergence in classification practice, particularly for projects that fall into judgment-intensive areas such as carbon-capture pilots, digital climate tools, and offsets. While tangible infrastructure like solar installations is typically capitalised, less tangible or precommercial investments are inconsistently treated across firms and jurisdictions.

These inconsistencies are not merely technical. They have real financial implications, affecting earnings, key performance indicators, and the perceived credibility of sustainability strategies. They also raise questions around comparability, transparency, and auditability, especially in a region where ESG reporting is in early stages of maturity and investor scrutiny is increasing.

The analysis confirms the view presented in prior literature that existing accounting frameworks often struggle to reflect the economic substance of environmental investments [1,2]. This is further complicated by regional dynamics unique to the GCC: diverse regulatory mandates, state-led green funding programmes, tax incentive schemes, and Sharia-compliance concerns. These institutional and strategic factors subtly influence how IFRS is interpreted and applied, often without explicit disclosure.

To mitigate this gap, the paper recommends the development of internal classification frameworks, regional interpretive guidance, enhanced disclosure practices, and stronger governance over sustainability accounting decisions. Regulators and standard-setters in the Middle East have a particular opportunity to lead in this space, by issuing practical benchmarks for common ESG expenditures and building preparer capacity through education and outreach.

Ultimately, the decision to capitalise or expense a green initiative is not simply about satisfying accounting rules. It is a statement of strategic intent, of how firms perceive the value of sustainability within their operations and reporting. The path forward lies in building a more consistent, transparent, and regionally grounded framework for applying IFRS to sustainability, one that balances technical rigour with forward-looking stewardship. As sustainability transitions accelerate, the accounting profession must evolve to provide clarity, credibility, and comparability for the green investments that will define the next of capital market evolution [8-21].

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