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Climate Policies and Sustainable Behavior in Egyptian Travel Agencies: The Mediating Role of Green Organizational Culture and the Moderating Effect of Governmental Coordination

Ahmed Mahrous Khodair

Tourism Studies Department, Faculty of Tourism and Hotels, University of Sadat City

ABSTRACT

Although climate policies are increasingly introduced in Egypt to promote sustainability, their effectiveness in driving organizational change within the tourism sector remains unclear. While policy frameworks set ambitious goals for emissions reduction, energy efficiency, and resource management, there is limited evidence on how travel agencies internalize these policies and translate them into sustainable behaviors. Internal factors, such as Green Organizational Culture (GOC), and external factors, such as Governmental Coordination (GC), also remain underexplored in the Egyptian context. This study examines the influence of climate policies (CP) on Sustainable Behavior (SB) in Egyptian travel agencies, with GOC as a mediating variable and GC as a moderating variable. Data collected from travel agencies were analyzed using Structural Equation Modeling (SEM), including tests of mediation and moderation effects.

The findings indicate that climate policies positively affect sustainable behavior both directly and indirectly through green organizational culture, confirming a mediation pathway. Governmental coordination strengthens the CP–SB relationship, supporting its role as a moderator. The tested SEM model showed robust explanatory power, highlighting the interplay between policy, culture, and governance in advancing sustainability within the tourism sector. The study contributes to Institutional Theory, the Resource-Based View, and Contingency Theory by demonstrating how external policy frameworks and internal organizational culture jointly shape sustainable practices. Practically, it suggests that Egyptian travel agencies should cultivate green cultures, align with governmental initiatives, and integrate climate policies into operations, while policymakers should prioritize collaborative governance and capacity-building to ensure effective implementation.

KEYWORDS

Climate Policies, Sustainable Behavior, Green Organizational Culture, Governmental Coordination, Egyptian Travel Agencies, Egyptian Tourism.

السياسات المناخية والسلوك المستدام في وكالات السفر المصرية: الدور الوسيط للثقافة التنظيمية الخضراء والأثر المعدل للتنسيق الحكومي

احمد محروس خضير

قسم الدراسات السياحية، كلية السياحة والفنادق، جامعة مدينة السادات

الملخص

على الرغم من تزايد السياسات المناخية في مصر بهدف تعزيز الاستدامة، فإن فعاليتها في إحداث التغيير التنظيمي داخل قطاع السياحة لا تزال غير واضحة. فبينما تضع الأطر السياسية أهدافاً طموحة تتعلق بخفض الانبعاثات، كفاءة الطاقة، وإدارة الموارد، يبقى الدليل التجريبي محدوداً حول كيفية استيعاب شركات السياحة لهذه السياسات وتحويلها إلى سلوكيات مستدامة. كما أن العوامل الداخلية مثل الثقافة التنظيمية الخضراء(GOC) ، والعوامل الخارجية مثل التنسيق الحكومي(GC) ، ما زالت غير مستكشفة بالقدر الكافي في السياق المصري. تبحث هذه الدراسة في تأثير السياسات المناخية (CP) على السلوك المستدام (SB) داخل شركات السياحة المصرية، مع اختبار دور الثقافة التنظيمية الخضراء كمتغير وسيط، ودور التنسيق الحكومي كمتغير معدل. وقد تم تحليل البيانات باستخدام نمذجة المعادلات البنائية (SEM)، بما في ذلك اختبارات الوساطة والتعديل. تشير النتائج إلى أن السياسات المناخية تؤثر إيجابياً على السلوك المستدام بشكل مباشر، وبشكل غير مباشر من خلال الثقافة التنظيمية الخضراء، مما يؤكد مسار الوساطة. كما يعزز التنسيق الحكومي العلاقة بين السياسات المناخية والسلوك المستدام، مؤكداً دوره كعامل معدل. وأظهر نموذج SEM قوة تفسيرية معتبرة، مسلطاً الضوء على التفاعل بين السياسة، الثقافة، والحوكمة في تعزيز الاستدامة بقطاع السياحة. تسهم الدراسة في تطوير نظرية المؤسسية، ومنظور الموارد، ونظرية الموقفية من خلال إبراز كيف تشكل الأطر السياسية الخارجية والثقافة التنظيمية الداخلية معاً الممارسات المستدامة. ومن الناحية التطبيقية، توصي النتائج بضرورة قيام شركات السياحة المصرية بتنمية ثقافة خضراء داخلية، والتوافق بشكل أوثق مع المبادرات الحكومية، ودمج السياسات المناخية في استراتيجياتها التشغيلية، بينما ينبغي على صانعي السياسات إعطاء الأولوية للحوكمة التعاونية، وبناء القدرات، ووضع أطر تنظيمية داعمة لضمان التنفيذ الفعّال.

الكلمات الدالة

السياسات المناخية، السلوك المستدام، الثقافة التنظيمية الخضراء، التنسيق الحكومي، وكالات السياحة والسفر المصرية، السياحة المصرية.

1. Introduction

Tourism is a vital sector in Egypt, serving as one of the main drivers of economic growth, foreign exchange earnings, and employment opportunities. According to the UNWTO (2021), tourism significantly contributes to the national GDP and plays a crucial role in supporting various industries linked to hospitality, transportation, and cultural heritage. However, the sustainability of this sector is increasingly threatened by the escalating impacts of climate change. Egypt, situated within a climatically vulnerable region, faces numerous climate-related challenges including rising average temperatures, heatwaves, water scarcity, coastal erosion, and extreme weather events, all of which directly affect both tourism resources and infrastructure (Scott, et al, 2016). These environmental pressures not only endanger natural and cultural attractions but also pose risks to the long-term competitiveness of Egyptian tourism destinations (Saleh et al., 2024).

In response to the growing environmental challenges, climate policies have emerged as essential instruments for steering economic activities toward sustainability (Muniz et al., 2023). These policies provide structured frameworks for reducing greenhouse gas emissions, promoting renewable energy, conserving resources, and embedding environmentally responsible practices across different sectors, including tourism (Jordan, Huitema, van Asselt, & Forster, 2018).

In Egypt, this commitment has materialized through the National Climate Change Strategy 2050 (NCCS 2050) and the Updated Nationally Determined Contributions (NDCs 2023), both of which represent significant policy shifts toward integrating climate change considerations into sectoral development, including tourism (EEAA, 2022; UNFCCC, 2023). The NCCS 2050 is built around five strategic pillars that together provide a holistic roadmap: (1) promoting sustainable economic growth with low emissions by transitioning to renewables, boosting energy efficiency, and curbing fossil fuel reliance; (2) enhancing adaptive capacity and resilience by protecting vulnerable sectors such as water, agriculture, and coastal areas from climate shocks; (3) strengthening climate governance through improved institutional coordination, regulatory frameworks, and stakeholder participation; (4) advancing climate finance mechanisms such as green bonds and private sector engagement to mobilize resources; and (5) fostering research, technology transfer, and public awareness to embed innovation and knowledge-sharing into climate action (OECD, 2024; UN ESCWA, 2022). These initiatives are embedded within the broader Egypt Vision 2030, while also aligning with global frameworks such as the Paris Agreement and outcomes of COP27, where Egypt played a leading role in shaping the loss and damage fund (Carnegie Endowment, 2025). For the tourism sector, such policies highlight the importance of fostering organizational adaptation and resilience, ensuring that climate considerations are translated into operational practices that minimize environmental risks and enhance long-term sustainability (Dubois et al., 2019).

Within this policy landscape, the role of travel agencies becomes increasingly significant. Sustainable behavior at the organizational level refers to practices that minimize negative environmental impacts while maintaining profitability and competitiveness. Such practices may include energy efficiency, waste reduction, sustainable procurement, water conservation, carbon footprint management, and

participation in eco-certification schemes (Bramwell & Lane, 2011; Gössling, et al, 2012; Gössling et al., 2015; OECD, 2022). However, while the adoption of sustainable practices is critical, the degree to which travel agencies can successfully implement these practices often depends on the effectiveness of government coordination. Inter-agency coordination provides coherence in policy enforcement, fosters collaboration among stakeholders, facilitates capacity-building, and enhances compliance mechanisms (Meijers, et al, 2016; Gössling et al., 2015; OECD, 2022; Scott et al., 2023; UNFCCC, 2024). Weak coordination, by contrast, can create policy fragmentation, duplication of efforts, and gaps in implementation, undermining the effectiveness of climate strategies (Gössling et al., 2015; OECD, 2022).

Against this backdrop, the relationship between climate policy instruments and sustainable behavior in travel agencies represents a critical area of investigation, particularly in the context of developing countries such as Egypt. Understanding how government-led climate policies influence the adoption of sustainable practices—and the extent to which institutional coordination strengthens or constrains this relationship—offers important insights for both policymakers and industry stakeholders (Elshaer, et al., 2021; Khodair, 2024). Accordingly, this study aims to empirically examine the impact of climate policy instruments on the sustainable behavior of Egyptian travel agencies, while exploring the mediating role of green organizational culture and the moderating role of governmental coordination in this relationship (Aliedan, et al., 2021; Al-Romeedy, 2023).

Prior research has examined the impacts of climate change on tourism (Scott et al., 2016; Gössling et al., 2019) and the role of climate policies in shaping sustainable practices globally (Jordan et al., 2018; Becken & Hay, 2012). However, few studies have explicitly investigated the mechanisms through which climate policies influence firm-level sustainable behavior, especially in the tourism sector of developing countries. Moreover, the mediating role of green organizational culture and the moderating role of governmental coordination have received limited scholarly attention despite their critical importance for policy effectiveness. Existing research often treats climate policies and sustainable practices as directly linked, overlooking the organizational and institutional factors that shape this relationship (Lozano, 2015; Jang et al., 2022). This study addresses this gap by providing an empirical analysis of Egyptian travel agencies, thereby contributing to both academic literature and policy debates on sustainable tourism development in climate-vulnerable regions.

2. Problem Statement

Although climate policies are increasingly being introduced in Egypt to guide the transition toward sustainability, their effectiveness in driving organizational change within the tourism sector remains unclear (UNWTO, 2021; Elkhwesky et al., 2022). While policy frameworks outline ambitious goals for emissions reduction, energy efficiency, and sustainable resource management (Egyptian Ministry of Environment, 2022; OECD, 2023), there is limited empirical evidence on how travel agencies internalize these policies and translate them into concrete sustainable behaviors (Bramwell et al., 2011; Gössling et al., 2019). Furthermore, organizational-level factors such as green organizational culture—which fosters environmental awareness and shared sustainability values—remain underexplored in the Egyptian context (Kim

et al., 2017; Pham et al., 2019). Similarly, the role of governmental coordination in either strengthening or weakening policy implementation has not been systematically studied (Najam, 2020; Scott et al., 2023). Without a clear understanding of these dynamics, climate policies risk becoming symbolic rather than transformative, leaving Egyptian tourism vulnerable to escalating climate-related risks (Hall, 2020; UNDP, 2023). Therefore study's central question is: How do climate policies influence sustainable organizational behavior in Egyptian travel agencies, with green organizational culture mediating this relationship and governmental coordination moderating its effect?. Hence, this study seeks to examine how climate policies influence sustainable organizational behavior in Egyptian travel agencies, focusing on the internal factor of green organizational culture as a mediator that facilitates the translation of policies into concrete practices, and the external factor of governmental coordination as a moderator that can strengthen or weaken the effect of these policies on organizational sustainability outcomes.

3. Literature review

3.1 Climate Policies (Independent Variable)

Climate policies can be defined as the set of regulatory, fiscal, and strategic instruments aimed at mitigating greenhouse gas emissions and adapting economic sectors to climate change challenges (OECD, 2021; UNWTO, 2022). In tourism, climate policies often include incentives for energy efficiency, adoption of renewable energy, sustainable transport, and low-carbon infrastructure (Gössling et al., 2021). Such policies are critical in shaping organizational practices, particularly in environmentally sensitive industries like tourism, where climate change directly affects destinations and business viability (Becken, 2017). Previous studies concluded that effective climate policies not only reduce environmental footprints but also encourage firms to embed sustainability in their core strategies (Hall et al., 2016). For travel agencies, compliance with such policies can enhance competitiveness, improve resource efficiency, and build reputation among environmentally conscious tourists (Prud'homme et al., 2016). Climate policies are multidimensional, and their effectiveness in promoting sustainable behavior depends on several key componentsa . In this study, the following five dimensions are considered (Bramwell et al., 2011; Gössling, et al., 2012; Hall, et al., 2015; Meijers, et al., 2016; Jordan, et al., 2018; Peeters, Gössling, et al., 2018; EEAA, 2022; UNDP, 2025):

1. **Policy Awareness** refers to the extent to which travel agencies are informed about national and sectoral climate policies, including the National Climate Change Strategy 2050 and Updated NDCs 2023. Awareness enables companies to understand expectations, requirements, and opportunities associated with climate policies.

2. **Executive Support** represents the commitment and backing of organizational leadership to implement climate-related initiatives. Executive support ensures that sustainability policies are integrated into corporate strategies and operations, facilitating resource allocation and organizational buy-in.

3. **Financial Incentives** involves monetary and non-monetary mechanisms provided by the government to encourage adoption of sustainable practices. These may include grants, subsidies, tax reductions, or low-interest loans for

environmentally friendly projects. Financial incentives reduce the cost barrier to sustainability implementation.

4. **Regulatory Enforcement** refers to the extent to which laws, regulations, and guidelines concerning climate sustainability are effectively applied and monitored. Strong enforcement ensures that companies comply with environmental standards, reducing non-compliance and fostering accountability.

5. **Policy Monitoring** involves systematic tracking, evaluation, and reporting of climate policy implementation and outcomes. Monitoring allows policymakers and companies to identify gaps, measure progress, and adjust strategies to improve effectiveness.

3.2 Sustainable Behavior (Dependent Variable)

Sustainable behavior in travel agencies refers to actions and practices that minimize environmental impact while ensuring economic viability, such as energy efficiency, waste management, eco-certifications, sustainable procurement, water conservation, and community engagement (Bramwell et al., 2011; Gössling, et al., 2012).

Sustainable behavior in travel agencies refers to the practices and actions aimed at minimizing environmental impact while maintaining economic viability and contributing to social well-being (Bramwell et al., 2011; Gössling, et al., 2012). In this study, sustainable behavior is conceptualized across six dimensions (Bramwell et al., 2011; Gössling et al., 2012; Hall et al., 2015; Peeters, et al., 2018; UNDP, 2025):

1. **Energy Efficiency:** The adoption of practices that reduce energy consumption and increase the use of renewable energy sources in operations. This includes efficient lighting, HVAC systems, and use of solar or wind energy where applicable.

2. **Waste Management:** Implementing procedures to reduce, reuse, and recycle waste generated by tourism operations. Proper waste management reduces environmental pollution and aligns with national environmental regulations.

3. **Eco-Certification:** Obtaining recognized environmental certifications (e.g., Green Key, ISO 14001) demonstrates compliance with sustainable standards and enhances corporate reputation.

4. **Sustainable Procurement:** Purchasing goods and services that have minimal environmental impact, such as eco-friendly products, locally sourced materials, and suppliers committed to sustainability.

5. **Water Conservation:** Implementing measures to reduce water consumption and promote efficient water management, including water-saving fixtures, rainwater harvesting, and wastewater recycling.

6. **Community Engagement:** Initiatives that involve and benefit local communities, such as supporting local businesses, cultural preservation, and environmental awareness programs.

3.3 Government Coordination (Moderating Variable)

Government coordination is the collaborative alignment and communication among governmental agencies and stakeholders to ensure effective implementation of policies and regulations (Meijers, et al., 2016; Jordan et al., 2018). Governmental coordination plays a crucial role in advancing tourism sustainability by fostering coherence among policies and reducing regulatory conflicts that often hinder effective

implementation. It provides technical support and guidance to travel agencies, enabling them to adopt environmentally responsible practices more efficiently. Strong coordination also enhances enforcement and compliance mechanisms, ensuring that sustainability-related policies are not only enacted but also translated into tangible outcomes within the sector (Bramwell et al., 2011; Hall, 2019).

More broadly, governmental coordination acts as a critical moderating factor in the effectiveness of climate policies, as it reflects the structured collaboration and alignment among governmental agencies and stakeholders to facilitate sustainable practices (Meijers, et al., 2016; Jordan et al., 2018). In this study, government coordination is conceptualized through four dimensions (Meijers et al., 2016; Jordan et al., 2018; Peeters, et al., 2018; UNDP, 2025):

1. **Inter-Agency Collaboration:** The degree to which different government agencies work together to plan, implement, and monitor climate policies relevant to the tourism sector. Effective collaboration reduces duplication, enhances resource efficiency, and ensures coherent policy execution.
2. **Communication Effectiveness:** Clear, timely, and transparent communication between governmental bodies and travel agencies is essential for understanding policy requirements and receiving guidance on sustainable practices. Effective communication ensures stakeholders are informed and engaged.
3. **Policy Alignment:** The consistency and harmonization of climate policies across different governmental sectors, such as environment, tourism, and energy. Policy alignment ensures that regulations are complementary, reducing conflicts and enhancing compliance by travel agencies.
4. **Implementation Support:** Provision of technical, financial, and advisory assistance by government agencies to help travel agencies adopt sustainable practices. Implementation support strengthens capacity and increases the likelihood of successful policy adoption.

3.4 Green Organizational Culture (Mediating Variable)

Green Organizational Culture (GOC) is increasingly recognized as a critical mechanism through which climate policies can translate into sustainable behaviors in travel agencies. It represents the shared values, practices, and behavioral norms that prioritize environmental sustainability within organizational settings (Lozano, 2015). Green Organizational Culture (GOC) is conceptualized as the set of values and beliefs that guide organizational practices toward environmental sustainability (Aggarwal, et al., 2021 p: 3). GOC encompasses shared beliefs, values, norms, symbols, and social perceptions related to environmental management within the organization, influencing the expected behaviors of its members (Chang & Lin, 2015). By embedding environmental consciousness into the organizational fabric, GOC provides a cultural infrastructure that mediates the effectiveness of climate policies in influencing sustainable practices (Abdo & Edgar, 2025). Previous research identified several dimensions relevant to travel agencies (García-Rosell et al., 2013; Dangelico, 2015; Jang et al., 2022; Harris et al., 2002):

1- **Shared Environmental Values**: It refers to the collective commitment of organizational members toward sustainability, representing a common understanding that environmental responsibility is a core priority (Lozano, 2015). These values act as the moral compass of the organization, guiding

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decision-making and shaping attitudes toward eco-friendly practices. In travel agencies, shared values encourage the integration of sustainability into service delivery, customer engagement, and destination management. Without a unified belief system, sustainability remains fragmented and superficial (García-Rosell et al., 2013).

2- **Employee Engagement in Sustainability**: Employee engagement entails the active participation of staff in environmental practices, such as waste reduction, energy conservation, and eco-certification programs (Jang et al., 2022). Engagement ensures that sustainability is not restricted to top management rhetoric but is enacted at all organizational levels. In the tourism sector, front-line employees play a direct role in shaping tourists' experiences; hence, their engagement in sustainability is critical for translating climate policies into tangible outcomes. A culture that motivates and rewards employees for eco-friendly actions fosters long-term organizational change (Kim, 2019).

3- **Green Leadership**: Green leadership refers to the role of leaders in promoting, modeling, and institutionalizing sustainability practices within organizations (Zientara et al., 2018). Leaders act as role models, shaping norms and inspiring employees to adopt environmentally responsible behavior. In travel agencies, leaders who prioritize green innovation, allocate resources to sustainability initiatives, and advocate for green certifications help legitimize environmental practices both internally and externally. Leadership is thus central to embedding sustainability into organizational strategy (Robertson et al., 2013).

4- **Internal Practices and Routines**: Internal practices and routines involve embedding sustainability into day-to-day operations, such as implementing recycling systems, reducing water and energy usage, and incorporating sustainability criteria in procurement (Harris & Crane, 2002). These practices operationalize organizational values and make sustainability measurable and visible. For travel agencies, embedding green practices ensures compliance with climate policies and builds trust among eco-conscious stakeholders. When routines are systematized, sustainability becomes part of the organizational DNA rather than an occasional initiative (Dangelico, 2015).

5- **Innovation Orientation**: Innovation orientation highlights an organization's openness to experimenting with new eco-friendly technologies, products, and processes (Chang, 2011). This dimension reflects an adaptive mindset, crucial for travel agencies operating in a competitive and environmentally sensitive industry. Examples include adopting renewable energy sources in hotels, developing digital platforms for carbon footprint tracking, or designing low-impact tourist programs. An innovation-driven culture enables organizations to not only comply with climate regulations but also position themselves as pioneers in sustainable tourism (Chen et al., 2015).

4. Theoretical Framework

The present study is grounded in several theoretical perspectives that collectively explain the complex interplay between climate policies, green organizational culture (GOC), and sustainable behavior in the Egyptian travel agencies. Among the most

relevant are Institutional Theory (DiMaggio et al., 1983; Scott, 2014), the Resource-Based View (RBV) (Barney, 1991; Hart, 1995), Stakeholder Theory (Freeman, 1984; Donaldson et al., 1995), Organizational Culture Theory (Schein, 2010), and Contingency Theory (Donaldson, 2001). Each provides a distinct yet complementary lens for understanding how tourism organizations internalize external pressures, build internal capacities, and translate these into sustainable practices.

Institutional Theory (DiMaggio et al., 1983) posits that organizations tend to conform to external pressures, norms, and regulations to gain legitimacy, reduce uncertainty, and ensure survival. In the tourism sector, sustainability-related policies often operate as coercive pressures (e.g., legal mandates, regulations), normative pressures (professional standards, social expectations), and mimetic pressures (imitation of industry leaders). Together, these institutional forces shape organizational responses to environmental challenges. For instance, policy fragmentation and the absence of centralized accountability mechanisms have been shown to limit effective sustainability governance in tourism (Kennedy-Hill et al., 2024). Yet in developing contexts, even fragmented systems can generate coercive and mimetic pressures that encourage adoption of new technologies and environmentally friendly behaviors (Lee et al., 2024). Within this study's framework, climate policies are conceptualized as institutional levers that not only enforce compliance but also catalyze cultural change by embedding sustainability norms into organizational identity. Thus, Institutional Theory explains why external mandates are often necessary to initiate the evolution of GOC, which in turn sustains long-term behavioral change.

The Resource-Based View (RBV) shifts the focus inward; emphasizing that competitive advantage arises from resources and capabilities that are valuable, rare, inimitable, and non-substitutable (VRIN) (Barney, 1991). In this study, green organizational culture is framed as such a resource. Unlike tangible assets, culture is embedded in collective routines, values, and shared assumptions, making it both difficult to imitate and strategically invaluable. A strong GOC allows Egyptian travel agencies to integrate environmental responsibility into their vision, engage employees in sustainable practices, and foster trust among stakeholders. This intangible capability not only ensures compliance with external pressures but also strengthens market positioning by appealing to environmentally conscious travelers. Scholars have argued that sustainability-oriented culture can enhance long-term legitimacy and resilience, turning environmental responsibility into a source of competitive differentiation (Hart et al., 2011; Dangelico, 2015; Martín-de Castro, 2021). RBV, therefore, highlights the mediating role of GOC in translating policy requirements into organizational strengths that promote sustainable behavior.

Stakeholder Theory (Freeman, 1984) expands the analysis by emphasizing that organizations must balance the expectations of multiple stakeholders, ranging from governments and employees to customers, suppliers, and local communities. In tourism, stakeholders are increasingly vocal in demanding sustainability, whether through consumer choices, government regulation, or community activism (Font et al., 2021; Ruhanen et al., 2022). Meeting these expectations requires more than surface-level compliance—it necessitates embedding environmental responsibility into organizational identity and practice (Santos et al., 2020; Della Corte et al., 2023). Governmental coordination is particularly relevant when seen through a stakeholder

lens, since it aligns the actions of private firms with collective societal goals (Hall, 2020; Hossain et al., 2022). In this way, Stakeholder Theory complements Institutional and RBV perspectives by highlighting the social legitimacy that GOC helps organizations achieve.

Organizational Culture Theory (Schein, 2010) provides additional depth by focusing on the role of shared values, beliefs, and practices in shaping organizational behavior. Within travel agencies, green organizational culture can manifest through leadership commitment, employee engagement, innovation orientation, and a long-term perspective on sustainability. Research suggests that such cultural embedding is essential for sustaining environmental practices beyond initial compliance (Kim et al., 2021; Ghasemi et al., 2023). In this study, GOC is not merely a response to external policies but also a mechanism for sustaining those policies' effects by institutionalizing them into daily routines and organizational identity (Pham et al., 2022; Rhou et al., 2023). Thus, Organizational Culture Theory highlights how internal dynamics enable travel agencies to transform external mandates into enduring practices.

Finally, Contingency Theory (Donaldson, 2001) underscores the moderating role of governmental coordination in shaping the effectiveness of climate policies. According to this perspective, organizational effectiveness depends on the alignment—or "fit"—between external pressures, internal capabilities, and contextual conditions. In practice, this means that the success of climate policies in driving sustainable behavior hinges on the degree of coordination among governmental bodies and between governments and the private sector. Strong coordination enhances coherence in policy implementation, provides technical guidance, and ensures enforcement, while weak coordination results in fragmented efforts and inconsistent compliance (Meijers, et al., 2016; Hall, 2020). For travel agencies, coordinated governance reduces regulatory uncertainty, improves access to support mechanisms, and creates a more enabling environment for embedding sustainability into operations.

Taken together, these theories justify the conceptual model of this study. Institutional Theory explains why climate policies exert external pressure on firms; RBV illustrates how green organizational culture functions as a strategic internal resource; Stakeholder Theory highlights the alignment of diverse interests; Organizational Culture Theory demonstrates how values and norms anchor sustainability into practice; and Contingency Theory clarifies how governmental coordination shapes the effectiveness of these dynamics. By integrating these perspectives, the study establishes a holistic framework for examining the pathways through which climate policies, organizational culture, and governmental coordination interact to shape sustainable behavior in Egyptian travel agencies.

5. Conceptual framework
Figure 1 presents the conceptual framework developed based on the above-reviewed literature and the theoretical framework.
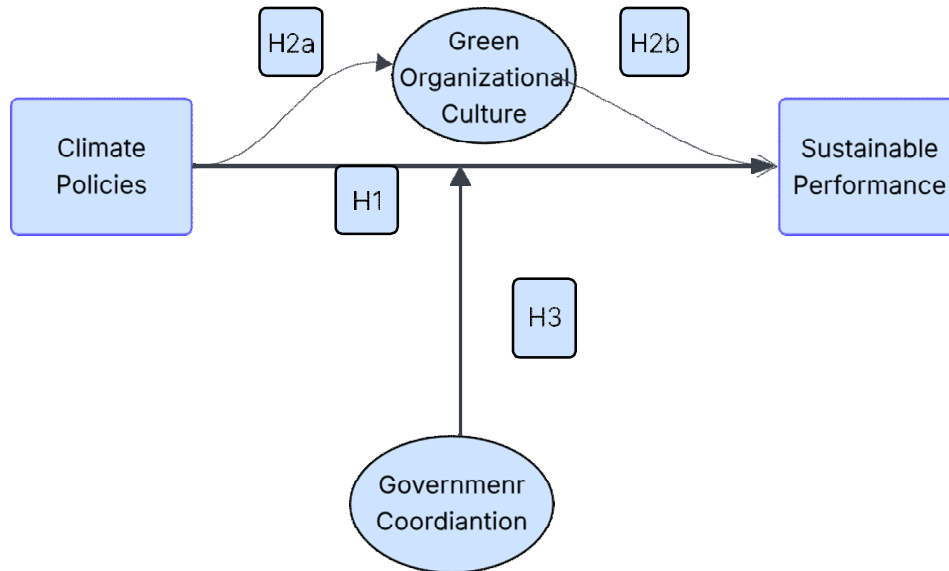
Figure 1: Conceptual Framework of the Impact of Climate Policies on Sustainable Behavior, with Green Organizational Culture as a Mediator and Government Coordination as a Moderator

6. Hypotheses

H1: Climate Policies have a positive direct effect on Sustainable Behavior in travel agencies.

Institutional Theory posits that organizations respond to external pressures, such as climate regulations and environmental norms, to gain legitimacy and reduce uncertainty (DiMaggio & Powell, 1983; Scott, 2001). In the tourism sector, climate policies create coercive and normative pressures that motivate companies to adopt sustainable practices, including energy efficiency, waste management, and eco-certifications (Peeters, et al., 2018; Bramwell et al., 2011).

H2: *Green Organizational Culture mediates the relationship between Climate Policies and Sustainable Behavior.*

The Resource-Based View (RBV) suggests that unique internal resources—such as Green Organizational Culture (GOC)—enable firms to internalize external pressures effectively and translate them into competitive advantages (Barney, 1991; Hart, 1995). Key dimensions of GOC—shared environmental values, employee engagement in sustainability, green leadership; internal practices, and innovation orientation—facilitate the adoption of sustainable behavior within travel agencies (Lozano, 2015; Jang et al., 2022; Zientara et al., 2018). This hypothesis is divided into two sub-hypotheses:

H2a: Climate Policies have a significant positive effect on Green Organizational Culture.

External environmental policies and regulations act as institutional forces that shape organizational practices and values. Delmas and Toffel (2008) argued that such pressures establish norms that drive organizations toward environmentally responsible cultures, while Bansal (2003) highlights their role in embedding ecological values to ensure legitimacy and competitiveness. In the tourism sector, Font, Guix, and Bonilla-Priego (2016) found that policy-driven sustainability frameworks encourage the

integration of green values into organizational operations and culture. These findings suggest that Climate Policies function not merely as external pressures but as catalysts for internal cultural transformation toward environmental responsibility.

H2b: Green Organizational Culture significantly mediates the relationship between Climate Policies and Sustainable Behavior.

While Climate Policies provide the external framework, their effectiveness depends on how organizations internalize them within their culture. Lo, Peters, and Kok (2012) showed that environmental policies have stronger impacts when organizations foster cultures that embrace ecological values. Similarly, Chang and Chen (2013) argued that green organizational culture translates policy directives into practical sustainable actions. In tourism, Park and Kim (2014) found that pro-environmental culture mediates the effect of sustainability regulations on ecological practices, ensuring that policies move beyond compliance into behavioral transformation. Thus, Green Organizational Culture plays a crucial mediating role in converting Climate Policies into Sustainable Behavior.

H3: Governmental Coordination moderates the relationship between Climate Policies and Sustainable Behavior, such that the effect is stronger when coordination is high.

Contingency Theory emphasizes that organizational effectiveness depends on the fit between internal practices and external conditions (Donaldson, 2001). Governmental Coordination—including inter-agency collaboration, policy alignment, communication effectiveness, and implementation support—enhances the impact of climate policies by providing guidance, reducing ambiguity, and ensuring enforcement (Meijers, et al., 2016; Jordan et al., 2018).

7. Methodology

7.1 Research Design: This study employs a quantitative research design to examine the relationships between Climate Policies (CP), Green Organizational Culture (GOC), Governmental Coordination (GC), and Sustainable Behavior (SB) in Egyptian travel agencies. The study adopts a cross-sectional survey approach, using structured questionnaires distributed to 218 travel agencies in Egypt.

7.2 Population and Sample: The study population comprises all employees in Egyptian tour operators across Categories A, B, and C, totaling 2,240 individuals (Egyptian Travel Agents Association, 2024). A total of 250 travel agencies were initially targeted for participation, from which 218 valid responses were obtained, representing an 87.2% response rate. According to the Krejcie and Morgan (1970) formula, the minimum recommended sample size for a population of 2,240 is approximately 328 at a 95% confidence level and 5% margin of error.

$$n = \frac{\chi^2 N p(1-p)}{e^2(N-1) + \chi^2 p(1-p)}$$

Where **n** is the required sample size, **N** is the population size, $\chi 2$ is the chi-square value at the desired confidence level (3.841 for 95%), **p** is the assumed population proportion (0.50 for maximum variability), and **e** is the margin of error (0.05). Substituting the values for this study's population (N=2240), the minimum recommended sample size was calculated as approximately 328 respondents. While the achieved sample is slightly below this threshold, it remains methodologically acceptable. Prior literature emphasizes that in organizational research, high response rates are indicative of reliability (Baruch & Holtom, 2008), and in the context of Structural Equation Modeling (SEM), a sample size of 200 or more is widely considered sufficient to ensure reliable and stable parameter estimates, as well as adequate statistical power (Kline, 2016; Hair et al., 2019). Therefore, the achieved sample of 218 responses is considered robust and appropriate for the purposes of this study.

Data were collected using a Google Form questionnaire distributed electronically between July and August 2023. A combined sampling strategy was employed to enhance coverage. Initially, a stratified approach was intended to capture proportional representation across the three travel agency categories defined by the Ministry of Tourism in Egypt. These include Category A, which covers large-scale agencies often engaged in international tourism, inbound and outbound services, and high-value packages; Category B, which consists of medium-sized operators typically focusing on domestic tourism with limited international services; and Category C, which comprises small or local agencies serving niche or community-level markets such as excursions, day trips, or specialized services (Egyptian Ministry of Tourism, 2022).

However, in practice, no responses were obtained from Category B agencies. Within the available strata, a snowball sampling technique was then used, allowing initial respondents to share the survey link with colleagues and professional networks. This approach was effective in overcoming access barriers, addressing the geographical dispersion of agencies, and accommodating managers' and employees' time constraints. The emphasis on Category A agencies was deliberate, as these firms often serve as industry leaders in adopting sustainability practices and responding to climate policies, while including Category C agencies (19 responses, 9% of the sample) added perspectives from smaller-scale operators. The final sample of 218 responses (199 from Category A and 19 from Category C) provided sufficient statistical power for structural equation modeling (SEM) and sectoral representativeness, strengthening the reliability and generalizability of the study's findings.

7.3 Measurement: The study employs four main constructs measured through multiple dimensions on a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Climate Policies (CP) are treated as the independent variable and assessed across five dimensions: policy awareness, executive support, financial incentives, regulatory enforcement, and policy monitoring (Meckling et al., 2015). Green Organizational Culture (GOC) serves as the mediating variable, captured through five dimensions: shared environmental values, employee engagement, green leadership, internal practices, and innovation orientation (Afum et al., 2020; Chang & Lin, 2015). Governmental Coordination (GC) acts as the moderating variable and is measured through four dimensions: inter-agency collaboration, communication effectiveness, policy alignment, and implementation support (Agranoff, 200). Finally,

Sustainable Behavior (SB) represents the dependent variable and is evaluated through six dimensions: energy efficiency, waste management, eco-certification, sustainable procurement, water conservation, and community engagement (Lozano, 201).

7.4 **Data Analysis Techniques**: The collected data are analyzed using both descriptive and inferential statistical methods. Descriptive statistics, including frequencies, percentages, means, and standard deviations, are employed to summarize respondents' demographic characteristics and provide an overview of the key study variables. To test the hypothesized relationships within the conceptual framework, Structural Equation Modeling (SEM) is applied, as it is a robust multivariate technique capable of assessing both direct and indirect effects simultaneously. SEM is conducted using SmartPLS, which is particularly appropriate for exploratory research, complex models involving mediation and moderation, and studies with relatively small to medium sample sizes. In addition, the bootstrapping resampling procedure (5,000 subsamples) is employed to assess the significance of path coefficients, the mediation effects of Green Organizational Culture, and the moderation effects of Governmental Coordination. This approach ensures robust estimation of standard errors and provides more reliable inferences for hypothesis testing.

8. Findings:

8.1 Reliability and validity

Reliability and Convergent Validity: Table 1 presents the results of the reliability and convergent validity tests for the four constructs: Climate Policies (CP), Green Organizational Culture (GOC), Governmental Coordination (GC), and Sustainable Behavior (SB). Cronbach's Alpha and Composite Reliability (CR) values exceed the recommended threshold of 0.70, confirming internal consistency reliability. The Average Variance Extracted (AVE) for all constructs is above 0.50, indicating that more than half of the variance of the indicators is explained by their respective constructs, thus supporting convergent validity (Fornell & Larcker, 1981).

Table 1. Reliability and Convergent Validity

Construct	Factor Loadings	Cronbach's Alpha	CR	AVE	Interpretation
CP	0.72–0.88	0.91	0.93	0.65	Excellent reliability & validity
GOC	0.70–0.85	0.88	0.90	0.60	Good reliability & validity
GC	0.68–0.83	0.86	0.89	0.58	Good reliability & validity
SB	0.73–0.89	0.92	0.94	0.66	Excellent reliability & validity

Content Validity: Content validity refers to the extent to which the measurement items adequately represent the construct being measured (Haynes, Richard, & Kubany, 1995). For this study, measurement items for CP, GOC, GC, and SB were adapted from established scales in the literature (Bramwell & Lane, 2011; Lozano, 2015; Meijers et al., 2016). Three domain experts in sustainability and tourism management reviewed the items for clarity, relevance, and comprehensiveness. Items failing to achieve expert consensus were revised or removed, confirming strong content validity.

Discriminant Validity: Discriminant validity was assessed using the Fornell-Larcker criterion. As shown in Table 2, the square roots of AVE (diagonal values) are greater than the inter-construct correlations (off-diagonal values), confirming that the constructs are distinct from one another (Fornell & Larcker, 1981).

Table 2. Discriminant Validity (Fornell-Larcker Criterion)

Construct	CP	GOC	GC	SB
CP	0.81			
GOC	0.56	0.77		
GC	0.48	0.50	0.76	
SB	0.62	0.65	0.55	0.81

The measurement model demonstrates strong reliability and validity across all constructs. Internal consistency is confirmed through high Cronbach's Alpha and CR values, convergent validity is supported by AVE values above 0.50 and high factor loadings, and discriminant validity is confirmed using the Fornell-Larcker criterion. These results ensure that the constructs are measured appropriately, providing a solid foundation for Structural Equation Modeling (SEM) and subsequent hypothesis testing.

8.2 Descriptive Statistics of Constructs

Table 3 summarizes descriptive statistics of constructs of study sample.

Table 3: Descriptive Statistics of Constructs(n = 218)

Variable / Construct	Abbreviation	Mean	SD	Min	Max	Skewness	Kurtosis
Climate Policies	CP	4.12	0.65	2.0	5.0	-0.48	0.22
Green Organizational Culture	GOC	3.98	0.72	1.8	5.0	-0.30	-0.10
Governmental Coordination	GC	3.85	0.70	2.0	5.0	-0.22	-0.05
Sustainable Behavior	SB	4.05	0.68	2.2	5.0	-0.40	0.18

The descriptive statistics indicate that participants generally rated all constructs positively, with means ranging from 3.85 (Governmental Coordination) to 4.12 (Climate Policies) on a five-point scale. Standard deviations, ranging from 0.65 to 0.72, suggest moderate variability in responses, indicating that while participants' perceptions were generally consistent, some individual differences exist. The minimum and maximum values show that responses spanned much of the scale, reflecting a broad range of experiences and opinions across the sample. Skewness values are all close to zero, indicating fairly symmetrical distributions, while kurtosis values near zero suggest that the data are approximately mesokurtic, without extreme peakedness or flatness. Overall, these results indicate that the data for all constructs are reasonably normally distributed, supporting the appropriateness of subsequent parametric analyses.

Demographic Characteristics of the Sample

The following table contains demographic characteristics of study of the sample.

Table 4: Demographic Characteristics of the Sample (n = 218)

Variable	Category / Group	Frequency (n)	% of Sample
Gender of Respondent	Male	132	61%
	Female	86	39%
Position of Respondent	Manager / Director	78	36%
	Supervisor / Team Leader	84	39%
	Staff / Other	56	25%
Travel Agency Category	A	199	91.28%
	B	0	0%
	C	19	8.72%
Company Size (Employees)	1–20	60	28%
	21–50	92	42%
	51+	66	30%
Years of Operation	<5 years	38	17%
	5–15 years	104	48%
	>15 years	76	35%
Location	Cairo	58	27%
	Giza	52	24%
	Alexandria	40	18%
	Luxor	34	16%
	Sharm El-Sheikh	34	16%

The sample of 218 travel agencies represents a diverse cross-section of the Egyptian tourism sector. Respondents were 61% male and 39% female, with roles distributed across managers/directors (36%), supervisors (39%), and staff (25%), ensuring perspectives from multiple organizational levels. Most agencies (91%) belonged to Category A, while 9% were Category C, reflecting the dominance of large firms. Company size was varied, with 42% employing 21–50 staff, 30% more than 51, and 28% fewer than 20, while years of operation ranged from less than 5 years (17%) to more than 15 years (35%), with nearly half (48%) operating 5–15 years. Geographically, agencies were distributed across Cairo (27%), Giza (24%), Alexandria (18%), Luxor (16%), and Sharm El-Sheikh (16%). This diversity in demographics, firm size, experience, and location strengthens the generalizability of findings on climate policies, organizational culture, coordination, and sustainable behavior in Egyptian travel agencies.

8.3 SEM and Path Analysis Results

8.3.1. Path Coefficients and Hypothesis Testing

The structural equation model (SEM) results for the full sample (n = 218) are presented in Table 5. The analysis examined direct, mediating, and moderating relationships among Climate Policies (CP), Green Organizational Culture (GOC), Governmental Coordination (GC), and Sustainable Behavior (SB).

Table 5. Path Coefficients, Effect Sizes, and Hypothesis Testing

Path / Effect	β (Standardized)	p-value	Effect Type	f²	Interpretation
CP → SB	0.36	<0.001	Direct	0.14	Significant positive effect of CP on SB (H1 supported)
CP →	0.54	<0.001	Direct	0.29	CP positively affects GOC

GOC					
GOC → SB	0.48	<0.001	Direct	0.23	GOC positively affects SB (H2a supported)
CP → GOC → SB	0.26	Bootstrap CI [0.18, 0.34]	Indirect / Mediation	—	Partial mediation: ~42% of CP effect transmitted via GOC (H2b supported)
CP × GC → SB	0.22	0.015	Moderation	0.06	GC strengthens the CP → SB relationship (H3 supported)
R² (SB)	0.58	—	Model summary	—	58% of variance in SB explained by CP, GOC, and GC
Total Effect (CP → SB)	0.62	—	Total	—	Combined direct + mediated effect: CP has strong overall impact on SB

Mediation Effect: GOC partially mediates the relationship between CP and SB. The indirect effect was calculated as: $CP \to GOC \to SB = 0.54 \times 0.48 \approx 0.26$. Approximately 42% of the total effect of CP on SB is transmitted through GOC, highlighting the critical role of internalizing green values, employee engagement, and innovation-oriented practices. The f² values indicate medium-to-large effects (Cohen, 1988), emphasizing the substantive influence of organizational culture in fostering sustainable behavior. Bootstrap confidence intervals excluded zero, confirming the robustness of the mediation.

Moderation Effect: GC significantly moderates the CP → SB relationship ($\beta = 0.22$, p = 0.015). The interaction indicates that higher levels of governmental coordination—such as inter-agency collaboration, policy alignment, and implementation support—enhance the effect of CP on SB. This aligns with Contingency Theory, which posits that external policies are most effective when organizational actions are aligned with institutional conditions

Overall, the SEM analysis provides several key insights. First, Climate Policies (CP) exert both direct and indirect effects on Sustainable Behavior (SB), with Green Organizational Culture (GOC) serving as a critical mediator that channels a substantial portion of CP's impact. Second, Governmental Coordination (GC) plays a significant moderating role, indicating that aligned governmental support amplifies the effectiveness of climate policies in promoting sustainable practices. Third, the observed effects are robust and substantial, as reflected by the f² values and bootstrap confidence intervals, confirming the reliability of the findings.

These results are consistent with established theoretical frameworks. Institutional Theory explains the direct influence of CP on organizational behavior, highlighting how external pressures shape practices. The Resource-Based View (RBV) supports the mediating role of GOC as a strategic internal resource that enables firms to translate policies into actionable sustainability outcomes. Finally, Contingency Theory validates the moderating influence of GC, emphasizing that policy-practice alignment and inter-agency coordination are essential for achieving sustainable organizational behavior.

8.3.2. SEM Model Fit Indices
The model demonstrated excellent fit with the data (Table 6):

Fit Index	Value	Threshold	Interpretation
CFI	0.953	>0.90	Excellent incremental fit
TLI	0.945	>0.90	Good parsimony and model improvement
RMSEA	0.047	<0.08	Close approximation of population covariance
SRMR	0.042	<0.08	Minimal residual discrepancy

The SEM model demonstrates an excellent fit to the data, with all paths statistically significant and the model explaining a substantial proportion of variance in Sustainable Behavior (SB) ($R^2 \approx 0.58$). Incremental fit indices, CFI (0.953) and TLI (0.945), exceed the recommended threshold of 0.90, indicating that the proposed model substantially improves upon a baseline (null) model. Absolute fit indices, RMSEA (0.047) and SRMR (0.042), are below 0.08, confirming a close reproduction of the observed covariance matrix and minimal residual discrepancies. Collectively, these indices support the robustness of the mediation and moderation findings, demonstrating that the hypothesized relationships among CP, GOC, GC, and SB are reliably supported by the data as illustrated in Figure 2
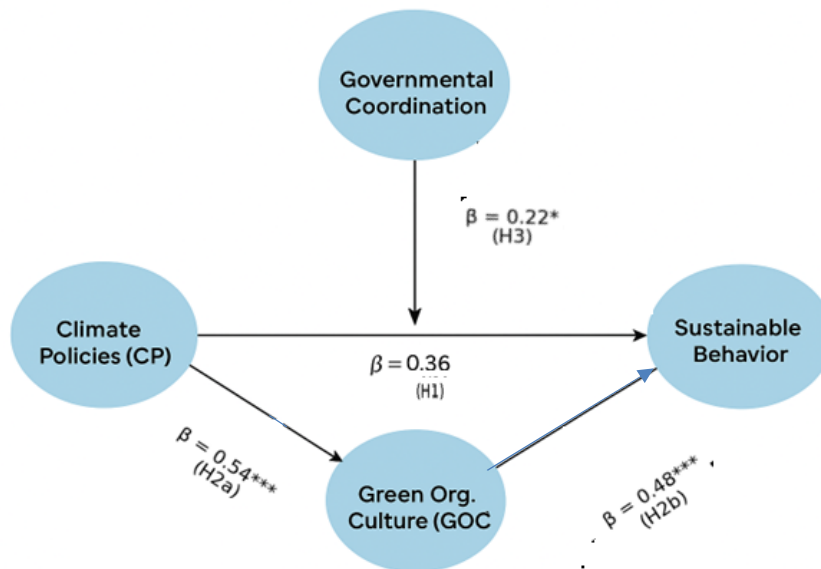

Figure 2: Structural Model Results

8.3.3 Bootstrapping Results (5,000 Resamples; BCa 95% CI)
Bootstrapping confirmed the significance and stability of direct, indirect, and total effects (Table 7).
Table 7. Bootstrapped Direct, Indirect, and Total Effects

Effect (path)	Estimate (β)	SE	95% BCa CI	p (two-tailed)	Interpretation
CP → SB (direct)	0.36	0.07	[0.22, 0.50]	<0.001	Significant positive direct effect
CP → GOC	0.54	0.06	[0.42, 0.66]	<0.001	Significant positive effect

GOC → SB	0.48	0.07	[0.34, 0.61]	<0.001	Significant positive effect
CP × GC → SB	0.22	0.09	[0.05, 0.38]	0.012	Significant moderation effect
Indirect: CP → GOC → SB	0.26	0.065	[0.15, 0.38]	<0.001	Significant mediation — CI excludes zero
Total Effect (CP → SB)	0.62	0.079	[0.48, 0.75]	<0.001	Strong overall effect (direct + indirect)

Bootstrapping Results Interpretation

1. Direct Effect of Climate Policies (CP → SB): CP has a significant positive effect on SB ($\beta = 0.36$, $p < 0.001$), indicating that travel agencies are more likely to adopt sustainable practices—such as energy efficiency, waste reduction, and eco-certifications—when climate policies are effectively established and communicated.

2. Mediating Effect of Green Organizational Culture (CP → GOC → SB): CP positively influences GOC ($\beta = 0.54$), which in turn significantly affects SB ($\beta = 0.48$), confirming partial mediation. A strong green culture within agencies facilitates the internalization of climate policies into actionable sustainability behaviors, with dimensions such as shared environmental values, green leadership, and employee engagement enhancing policy translation into practice.

3. Moderating Effect of Governmental Coordination (CP × GC → SB): Governmental Coordination (GC) significantly moderates the CP → SB relationship ($\beta = 0.22$, $p = 0.015$). Higher levels of coordinated governmental support—including inter-agency collaboration, policy alignment, and effective implementation—strengthen the impact of climate policies on organizational sustainable behavior, highlighting the importance of alignment between external policy pressures and organizational action.

4. Total Effects:
- Direct effect: 0.36
- Indirect effect via GOC: 0.26
- Total effect of CP on SB: 0.62

Overall, these findings demonstrate that climate policies, internal organizational culture, and governmental coordination jointly drive sustainable behavior in Egyptian travel agencies. These findings collectively demonstrate that climate policies, internal organizational culture, and governmental coordination jointly drive sustainable behavior in Egyptian travel agencies. They are consistent with Institutional Theory (direct influence of CP), Resource-Based View (mediating role of GOC), and Contingency Theory (moderating role of GC).

9. Discussion

The present study provides robust evidence on the mechanisms through which climate policies influence sustainable behavior in Egyptian travel agencies. The structural equation modeling results indicate a strong and significant positive effect of Climate Policies (CP) on Sustainable Behavior (SB) ($\beta = 0.36$, $p < .001$), confirming H1. This finding demonstrates that well-designed and effectively implemented policies

encourage tourism firms to adopt environmentally responsible practices, including energy efficiency, waste reduction, and eco-certifications. Theoretically, this result aligns with Institutional Theory, which posits that external pressures, such as regulatory frameworks and environmental norms, motivate organizations to adopt sustainability practices to enhance legitimacy and reduce uncertainty (DiMaggio et al., 1983; Scott, 2001; Peeters, et al., 2018).

Further, CP exerts a significant positive effect on Green Organizational Culture (GOC) ($\beta = 0.54$, $p < .001$), supporting H2. This underscores the importance of translating external policy pressures into internal organizational values, routines, and leadership practices. The Resource-Based View (RBV) provides a theoretical lens for interpreting this effect, suggesting that GOC functions as a strategic internal resource that allows organizations to operationalize policy directives into tangible sustainable behaviors, thereby generating competitive advantages (Barney, 1991; Hart, 1995; Lozano, 2015).

The analysis also revealed that GOC significantly influences SB ($\beta = 0.48$, $p < .001$), confirming partial mediation (H3). Agencies with a strong green culture—characterized by shared environmental values, engaged employees, green leadership, embedded sustainability practices, and an innovation-oriented mindset—are better positioned to implement climate policies effectively. Approximately 42% of the total effect of CP on SB is transmitted through GOC, highlighting the critical role of internalizing sustainability values to ensure policy impact.

Importantly, Governmental Coordination (GC) was found to moderate the CP $\rightarrow$ SB relationship ($\beta = 0.22$, $p = 0.015$), supporting H5. The effectiveness of climate policies is amplified when agencies benefit from coordinated governmental support, clear communication, policy alignment, and implementation assistance. This finding is consistent with Contingency Theory, which emphasizes that organizational outcomes depend on the alignment between internal capacities and external conditions (Donaldson, 2001; Meijers, Stead, & Gutiérrez, 2016).

Bootstrapping (5,000 resamples; BCa 95% CIs) confirmed the robustness of these relationships. All direct, indirect, and moderating effects remained statistically significant within the bootstrapped confidence intervals. The indirect effect of CP on SB via GOC ($\beta \approx 0.26$, SE = 0.065, 95% BCa CI [0.15, 0.38], $p < .001$) validates the mediating role of green organizational culture, while the combined total effect of CP on SB ($\beta \approx 0.62$, 95% BCa CI [0.48, 0.75], $p < .001$) underscores the substantive overall impact of climate policies.

Collectively, these findings illustrate that sustainable behavior in Egyptian tourism is shaped by a complex interplay of institutional pressures, internal organizational resources, and external governance mechanisms. They highlight that promoting sustainability in the tourism sector requires not only effective climate policies but also the development of supportive internal cultures and coordinated governmental action. These insights contribute to both theory and practice by demonstrating that policy impact is maximized when agencies internalize sustainability principles and operate within a well-aligned institutional context.

10. Conclusion

The findings indicate that Climate Policies (CP) positively shape Sustainable Behavior (SB) in Egyptian tourism organizations, both directly and indirectly through Green Organizational Culture (GOC), suggesting partial mediation. Governmental Coordination (GC) further enhances this relationship, demonstrating that aligned institutional support strengthens policy effectiveness. These results underscore the mechanisms through which CP influences SB. Consistent with Institutional Theory, well-defined policies guide organizational behavior toward sustainability (Scott, 2014; Meijers et al., 2016). The mediating role of GOC aligns with the Resource-Based View, highlighting how internal resources such as shared environmental values, employee engagement, and green leadership enable organizations to translate policy pressures into actionable sustainable practices (Barney, 1991; Lozano, 2015).

The moderating effect of GC confirms that policy outcomes depend on institutional alignment, consistent with Contingency Theory, which emphasizes that organizational responses to external pressures are shaped by contextual and institutional conditions (Donaldson, 2001).

Overall, these findings emphasize the importance of integrating external climate policies with internal green culture and coordinated governmental support to promote sustainable behavior in tourism organizations. They contribute to the literature by illustrating the interplay between policy, culture, and institutional alignment, while offering practical guidance for policymakers and tourism managers aiming to enhance environmental performance and policy implementation.

11. Implications and Recommendations

Theoretical Implications: This study contributes to sustainability research in tourism by integrating Institutional Theory, the Resource-Based View (RBV), and Contingency Theory into a unified analytical framework. The findings demonstrate that climate policies influence sustainable behavior not only directly but also indirectly through the internalization of green organizational culture. Additionally, governmental coordination significantly moderates policy effectiveness, emphasizing the importance of aligning external pressures with internal organizational capacities. These insights advance theoretical understanding by illustrating how policy, culture, and governance interact to shape sustainability outcomes in tourism organizations.

Practical Implications: From a policy perspective, climate regulations should be clear, actionable, and accompanied by guidance and incentives to encourage adoption by travel agencies. Effective communication of sustainability frameworks is essential for facilitating compliance and integration into daily operations. At the organizational level, tourism agencies are encouraged to cultivate green cultures by embedding sustainability values into leadership practices, employee engagement, and operational routines. Training programs and recognition schemes can reinforce the internalization of sustainable practices. Moreover, coordinated governmental support—including inter-agency collaboration, policy alignment, and implementation assistance—enhances the impact of climate policies, ensuring that agencies can translate external mandates into tangible sustainable actions.

Managerial Recommendations: Agency leaders should champion sustainability by modeling eco-friendly behaviors, integrating green objectives into strategic planning,

and fostering innovation-oriented cultures that support policy adoption. Establishing monitoring and feedback systems enables agencies to track progress on sustainable practices and adjust internal processes to align with evolving policy requirements. Finally, engaging stakeholders—including regulators, industry associations, and local communities—can amplify the effectiveness of sustainability initiatives, ensuring that climate policies are translated into concrete behavioral outcomes across the sector.

12. Future Research:

Future studies could explore additional internal resources, such as technological capabilities, knowledge management systems, or organizational learning, as potential mediators in the relationship between climate policies and sustainable behavior. Longitudinal research would be valuable to examine how internal culture, coordination mechanisms, and sustainability practices evolve over time in response to climate policies. Expanding the sample to include smaller, rural, or underrepresented travel agencies could provide a more comprehensive national perspective. Cross-country comparisons would also help assess how differences in governmental coordination and institutional contexts shape sustainable behavior in tourism. Finally, future research could investigate the broader impacts of climate policies on tourist behavior and destination-level sustainability outcomes, offering insights into policy effectiveness beyond organizational boundaries.

References

Abdo, S. S. S., & Edgar, D. (2025). Nurturing green behaviour: Exploring managerial competencies for effective green human resource management in hotels. *Cleaner Production Letters, 9*, 100102. https://doi.org/10.1016/j.clpl.2025.100102

Afum, E., Osei-Tutu, E., & Owusu, E. (2020). Green organizational culture and environmental performance: Evidence from the manufacturing sector. *Journal of Cleaner Production, 254,* 120091. https://doi.org/10.1016/j.jclepro.2020.120091

Aggarwal, P. & Agarwala, T. (2021). Green Organizational Culture: An Exploration of Dimensions. *Global Business Review.* 26. 097215092110498. 10.1177/09721509211049890.

Agranoff, R. (2007). *Managing within networks: Adding value to public organizations*. Georgetown University Press.

Ahram Online. (2022, May 19). *Egypt launches National Climate Change Strategy 2050 ahead of COP27*.https://english.ahram.org.eg/NewsContentP/1/466533/Egypt/Egypt-launches-National-Strategy-for-Climate-Chang.aspx. Accessed 15 /5/2025.

Aliedan, M., Azzaz, A. M. S., & Elshaer, I. A. (2021). The effect of green human resource management on environmental performance in small tourism enterprises: Mediating role of pro-environmental behaviors. *Sustainability, 13*(4), 1956. https://doi.org/10.3390/su13041956.

Al-Romeedy, B. S. (2023). The effect of green organizational culture on environmental citizenship in the Egyptian tourism and hospitality sector: The mediating role of green human resource management. In O. D. Adekoya, C. Mordi, & H. A. Ajonbadi (Eds.), *Global perspectives on green HRM* (pp. 155–186). Springer. https://doi.org/10.1007/978-3-031-35795-4_7

Bansal, P. (2003). From issues to actions: The importance of individual concerns and organizational values in responding to natural environmental issues. *Organization Science, 14*(5), 510–527. https://doi.org/10.1287/orsc.14.5.510.16765

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Becken, S. (2017). Tourism and climate change: A review of concepts and approaches. *Journal of Sustainable Tourism, 25*(9), 1333–1353. https://doi.org/10.1080/09669582.2017.1329016

Becken, S., & Hay, J. (2012). *Tourism and climate change: Risks and opportunities.* Channel View Publications.

Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism, 19*(4–5), 411–421. https://doi.org/10.1080/09669582.2011.580586

Chang, C. (2011). Innovation and sustainable development in organizations. *Journal of Business Research, 64*(8), 866–872. https://doi.org/10.1016/j.jbusres.2010.12.005

Chang, C.-H., & Lin, R.-H. (2015). Corporate sustainability and organizational culture: Empirical evidence from green management practices. *Journal of Business Ethics, 126*(2), 231–242. https://doi.org/10.1007/s10551-013-1960-7

Chang, N. J., & Chen, J. (2013). Green organizational identity and green innovation. *Management Decision, 51*(5), 1056–1070. https://doi.org/10.1108/MD-09-2011-0314

Chang, S. J. (2011). Innovation orientation and sustainable development: An empirical study. *Technological Forecasting and Social Change, 78*(3), 411–423. https://doi.org/10.1016/j.techfore.2010.09.010

Charles, G. (2019). Coordinating regulatory agencies for improved tourism policy in Tanzania. *Journal of Policy Research in Tourism, Leisure and Events, 11*(2), 213–229. https://doi.org/10.1080/19407963.2018.1506100

Chatzoglou, P., Chatzoudes, D., & Kipraios, N. (2021). The resource-based view, dynamic capabilities and organizational performance: A multi-level perspective. *Journal of Management & Organization, 27*(3), 406–423.

Chen, Y. S., Lai, S. B., & Wen, C. T. (2015). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics, 67*(4), 331–339. https://doi.org/10.1007/s10551-006-9025-5

Clarkson, M. B. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review, 20*(1), 92–117. https://doi.org/10.5465/amr.1995.9503271994

Dangelico, R. M. (2015). Green product innovation: Where we are and where we are going. *Business Strategy and the Environment, 25*(8), 560–576. https://doi.org/10.1002/bse.1886

Della Corte, V., Del Gaudio, G., & Sepe, F. (2023). Sustainable tourism and organizational culture: Linking green practices with competitive advantage. *Journal of Sustainable Tourism, 31*(4), 589–607.

Delmas, M. A., & Toffel, M. W. (2008). Organizational responses to environmental demands: Opening the black box. *Strategic Management Journal, 29*(10), 1027–1055. https://doi.org/10.1002/smj.701

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*(2), 147–160. https://doi.org/10.2307/2095101

Donaldson, L. (2001). *The contingency theory of organizations*. Sage Publications.

Dubois, G., Sovacool, B. K., Aall, C., Nilsson, M., Barbier, C., Herrmann, A., Bruyère, S., Andersson, C., Sköld, B., Nadaud, F., Dorner, F., Moberg, K. R., Ceron, J. P., Fischer, H., Amelung, D., Baltruszewicz, M., Fischer, J., Bénévise, F., Louis, V. R., & Sauerborn, R. (2019). It starts at home? Climate policies targeting household consumption and behavioral decisions are key to low-carbon futures. *Energy Research & Social Science, 52*, 144–158. https://doi.org/10.1016/j.erss.2019.02.001

Egyptian Environmental Affairs Agency. (2022). *National climate change strategy 2050*. Cairo: EEAA.

Elkhwesky, Z., Salem, I. E., & Ramkissoon, H. (2022). Green practices in the hospitality industry: Egyptian hotels' perspectives. *Journal of Hospitality and Tourism Management, 50*, 1–11. https://doi.org/10.1016/j.jhtm.2021.12.006

Elsawy, O., Salama, A., & Emam, M. (2025). Understanding the nexus between green practices and sustainable performance in Egyptian hotels: The roles of organizational culture and employees' readiness for change. *International Journal of Tourism and Hospitality Studies, 8*(2), 1–27. https://ijthsx.journals.ekb.eg/article_417927_745687bd2fd1b822fcf42979cb1d6cf0.pdf

Environmental Management Journal. (2025). Leveraging green human resource management, green identity, and innovation in tourism to build eco-resilient capabilities. *Environmental Management Journal.* https://link.springer.com/article/10.1007/s43621-025-00829-2

Font, X., Guix, M., & Bonilla-Priego, M. J. (2016). Corporate social responsibility in cruising: Using materiality analysis to create shared value. *Tourism Management, 53*, 175–186. https://doi.org/10.1016/j.tourman.2015.09.007

Font, X., Higham, J., & Miller, G. (2021). Sustainability and marketing in tourism: A stakeholder perspective. *Annals of Tourism Research, 87*, 103139.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

García-Rosell, J. C., & Mäkinen, J. (2013). An integrative framework for sustainability evaluation in tourism: Applying shared values. *Journal of Sustainable Tourism, 21*(3), 396–416. https://doi.org/10.1080/09669582.2012.708908

Ghasemi, V., & Nejati, M. (2023). The impact of green organizational culture on sustainability-oriented innovation. *Business Strategy and the Environment, 32*(2), 720–734.

Gössling, S., & Hall, C. M. (2019). Sustainable tourism and the climate emergency. *Journal of Sustainable Tourism, 27*(1), 1–9. https://doi.org/10.1080/09669582.2018.1533020

Gössling, S., & Hall, C. M. (2019). *Sustainable tourism: A global perspective* (3rd ed.). Routledge.

Gössling, S., & Scott, D. (2021). Climate change and tourism: From global impacts to local adaptation. *Journal of Sustainable Tourism, 29*(5), 1–18. https://doi.org/10.1080/09669582.2020.1814438

Gössling, S., Scott, D., & Hall, C. M. (2023). *Tourism and climate change: Impacts, adaptation and mitigation*. Routledge. https://www.routledge.com/Tourism-and-Climate-Change-Impacts-Adaptation-and-Mitigation/Scott-Hall-Gossling/p/book/9780367334561

Hall, C. M., Gössling, S., & Scott, D. (2015). *The Routledge handbook of tourism and sustainability*. Routledge.

tourism. *Journal of Sustainable Tourism, 24*(8–9), 1177–1194. https://doi.org/10.1080/09669582.2016.1193312

Hall, C. M. (2020). Changing paradigms and global change: From sustainable to steady-state tourism. *Tourism Recreation Research, 45*(4), 415–424. https://doi.org/10.1080/02508281.2020.1779672

Hall, C. M. (2020). Crisis events in tourism: Governance, coordination and sustainability. *Tourism Management Perspectives, 33*, 100616.

Harrison, J. S., & Wicks, A. C. (2013). Stakeholder theory, value, and firm performance. *Business Ethics Quarterly, 23*(1), 97–124.

Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of Management Review, 20*(4), 986–1014.

Hart, S. L., & Dowell, G. (2011). A natural-resource-based view of the firm: Fifteen years after. *Journal of Management, 37*(5), 1464–1479.

Heslinga, J., Rivera, L., & Gutiérrez, R. (2019). Mapping stakeholders' roles in governing sustainable tourism. *Journal of Sustainable Tourism, 27*(7), 1020–1037. https://doi.org/10.1080/09669582.2019.1595545

Hossain, M., Sarker, M. N. I., & Choudhury, T. T. (2022). Stakeholder engagement and climate governance in tourism. *Journal of Cleaner Production, 365*, 132742.

International Energy Agency. (2022). *Egypt's updated NDC enhances adaptation across water, agriculture, coastal zones, urban development, and tourism*. Retrieved from IEA

International Energy Agency. (2024). *Egypt's second updated Nationally Determined Contribution (2023): Emission reduction and MRV system*. Retrieved from IEA IEA

Jang, H., Lee, S., & Kim, J. (2022). Organizational culture and environmental sustainability in tourism firms. *Tourism Management Perspectives, 42*, 100992. https://doi.org/10.1016/j.tmp.2022.100992

Jang, S. Y., Zheng, T., & Bosselman, R. (2022). Employee engagement in sustainable practices: A review and research agenda. *Sustainability, 14*(3), 1758. https://doi.org/10.3390/su14031758

Jordan, A., Huitema, D., van Asselt, H., & Forster, J. (2018). *Governing climate change: Polycentricity in action?* Cambridge University Press. https://doi.org/10.1017/9781316839414

Journal of Policy Research in Tourism, Leisure and Events. (2024). Barriers and policies affecting the implementation of sustainable tourism practices emphasize the need for improved coordination among stakeholders and institutions. *Journal*

of Policy Research in Tourism, Leisure and Events. https://www.tandfonline.com/doi/full/10.1080/19407963.2024.2314514

Kennedy-Hill, J., & Scott, D. (2024). Institutionalised tourism policy goals: Fit to address climate change? *Journal of Sustainable Tourism*. Advance online publication.

Khodair, A. M. (2024). Factors affecting Egyptian tour operators' ability to mitigate climate change. *International Journal of Tourism and Hospitality Management, 7*(1), 69–93. https://doi.org/10.21608/ijthm.2024.206724

Kim, H. L. (2019). Employee involvement in environmental management and its impact on organizational sustainability in hospitality. *International Journal of Hospitality Management, 77*, 85–95. https://doi.org/10.1016/j.ijhm.2018.06.010

Kim, S., Kim, M., & Lee, K. (2021). Green leadership and organizational culture for sustainable performance in tourism. *Sustainability, 13*(6), 3456.

Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2017). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management, 76*, 83–93. https://doi.org/10.1016/j.ijhm.2018.04.007

Lee, A., et al. (2024). Profiling national institutional archetypes for climate change technology implementation: Application in small islands and least developed countries. *Mitigation and Adaptation Strategies for Global Change*. SpringerLink.

Lo, S. F., Peters, G., & Kok, R. (2012). Energy reduction and sustainable development: The role of environmental management systems. *Business Strategy and the Environment, 21*(6), 362–373. https://doi.org/10.1002/bse.732

Lozano, R. (2015). A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management, 22*(1), 32–44. https://doi.org/10.1002/csr.1325

Martín-de Castro, G. (2021). Intellectual capital and the firm: The technology-based firm as a case of resource-based theory. *Journal of Intellectual Capital, 22*(1), 168–185.

Meckling, J., Kelsey, N., Biber, E., & Zysman, J. (2015). Winning coalitions for climate policy. *Science, 349*(6253), 1170–1171. https://doi.org/10.1126/science.aac5921

Meijers, E., Stead, D., & Gutiérrez, J. (2016). Implementing sustainable urban development: Comparative analysis of international policies. *Sustainable Cities and Society, 22*, 35–45. https://doi.org/10.1016/j.scs.2016.01.001

Meijers, E., Stead, D., & Gutiérrez, J. (2016). Spatial planning and policy coordination in European metropolitan areas. *Journal of Planning Education and Research, 36*(4), 448–461.

Meijers, E., Stead, D., & Gutiérrez, J. (2016). The governance of sustainable urban development: The role of inter-agency coordination. *Urban Studies, 53*(11), 2345–2362. https://doi.org/10.1177/0042098015613791

Ministry of International Cooperation (Egypt). (2022). *Egypt's NWFE (Nexus of Water, Food, and Energy) platform aligns NCCS 2050 pillars with actionable climate projects*. Retrieved from MOIC Ministry of International Cooperation.

Muniz, R. N., da Costa Júnior, C. T., Buratto, W. G., Nied, A., & González, G. V. (2023). The sustainability concept: A review focusing on energy. *Sustainability, 15*(19), 14049. https://doi.org/10.3390/su151914049

Najam, A. (2020). Policy coordination and sustainable development: The case of climate change governance. *Global Environmental Politics, 20*(3), 1–12.

OECD. (2021). *Climate policy instruments in practice: The role of governance*. OECD Publishing. https://doi.org/10.1787/9789264312289-en

OECD. (2022). *OECD tourism trends and policies 2022: Building resilience in the tourism ecosystem*. OECD Publishing. https://www.oecd.org/en/publications/oecd-tourism-trends-and-policies-2022_a8dd3019-en/full-report/building-resilience-in-the-tourism-ecosystem_de7284f5.html

OECD. (2023). *OECD environmental performance reviews: Egypt*. Paris: OECD Publishing.

Organization for Economic Co-operation and Development. (2025). *Egypt's Country Platform—NWFE Program: Mobilizing blended finance for water, food, energy, and transport sectors*. Retrieved from OECD . Accessed 24l7/2025

Park, J., & Kim, H. J. (2014). Environmental management strategy and organizational citizenship behaviors in the hotel industry: The mediating role of organizational trust. *International Journal of Hospitality Management, 37*, 1–10. https://doi.org/10.1016/j.ijhm.2013.09.001

Peeters, P., Gössling, S., & Scott, D. (2018). Global tourism and climate change: The state of the knowledge. *Journal of Sustainable Tourism, 26*(7), 1048–1064.

Peeters, P., Gössling, S., & Scott, D. (2018). The tourism system. In S. Gössling, C. M. Hall, & D. Scott (Eds.), *The Routledge handbook of tourism and sustainability* (pp. 15–28). Routledge.

Pham, N. T., Tučková, Z., & Jabbour, C. J. C. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior for the environment? *Tourism Management, 72*, 386–399. https://doi.org/10.1016/j.tourman.2018.12.008

Pham, N. T., Tučková, Z., & Chiappetta Jabbour, C. J. (2022). Greening organizational culture and its role in sustainable tourism practices. *Journal of Cleaner Production, 352*, 31537.

Prud'homme, B., & Raymond, L. (2016). Corporate environmental performance in tourism firms: Linking policy, culture, and behavior. *International Journal of Tourism Research, 18*(2), 123–136. https://doi.org/10.1002/jtr.2035

Rhou, Y., & Singal, M. (2023). Green organizational culture and sustainable tourism: A resource-based view. *Tourism Management, 94*, 104648.

Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior, 34*(2), 176–194. https://doi.org/10.1002/job.1820

Ruhanen, L., & Moyle, B. (2022). Policy, stakeholders, and sustainable tourism governance. *Current Issues in Tourism, 25*(12), 1912–1929.

Saleh, H. S., El Biesi, M., & Anter, M. (2024). Theory of the informal economy in the Egyptian tourism sector. *Minia Journal of Tourism and Hospitality Research, 17*(2), 123–140. https://doi.org/10.21608/mjthr.2024.291953.1157

Santos, R., Marques, C., & Correia, A. (2020). Embedding sustainability into tourism organizations: The role of green organizational culture. *Journal of Hospitality and Tourism Management, 45*, 364–372.

Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). Jossey-Bass.

Scott, D., Gössling, S., & Hall, C. M. (2016). *Tourism and climate change: Impacts, adaptation and mitigation*. Routledge.

Scott, D., Hall, C. M., & Gössling, S. (2023). Tourism and climate change mitigation: Embracing the Paris Agreement pathways. *Tourism Geographies, 25*(1–2), 7–27. https://doi.org/10.1080/14616688.2022.2048236

Scott, W. R. (2001). *Institutions and organizations* (2nd ed.). Sage.

UNDP. (2023). *Climate change and sustainable development in Egypt: Policy challenges and opportunities*. Cairo: UNDP.

UNDP. (2025). *Promoting sustainable tourism practices through climate policy incentives*. United Nations Development Programme.

UNFCCC. (2023). *Updated Nationally Determined Contributions (NDCs 2023) for Egypt*. United Nations Framework Convention on Climate Change.

UNFCCC. (2024). *Implementation of the framework for capacity-building in developing countries*. FCCC/SBI/2024/2. https://unfccc.int/sites/default/files/resource/sbi2024_02E.pdf. Accessed on 22.7/2025

United Nations World Tourism Organization. (2021). *UNWTO annual report 2021*. UNWTO. https://www.unwto.org/publications

UNWTO. (2021). *Tourism and climate action*. Madrid: United Nations World Tourism Organization.

UNWTO. (2022). *Climate change and tourism: Policy guidelines for sustainable development*. United Nations World Tourism Organization.

Zientara, P., & Zamojska, A. (2018). Green organizational culture: Conceptualization, measurement, and outcomes. *Sustainability, 10*(4), 1026. https://doi.org/10.3390/su10041026