

## Unveiling Potentials and Overcoming Obstacles: Exploring the Feasibility of Green-Hybrid Conference Management Post-Covid-19 in Bali

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DOI: <https://doi.org/10.24843/JKB.2024.v14.i01.p06>

**Abstract:** Over the past four decades, Bali has emerged as a leading MICE (Meetings, Incentives, Conferences, Exhibitions) tourism destination. This study examines the feasibility of organizing green-hybrid conferences in Bali post Covid-19, focusing on identifying key potentials and obstacles for effective management. Employing qualitative methods, utilizing interviews and document analysis, the research assesses infrastructure, human resources, and logistical aspects relevant to hosting such conferences. Bali demonstrates adequate infrastructure and human resources but encounters challenges like technological limitations and logistical dependence. These findings shed light on the complexities of implementing green-hybrid conference management post-pandemic. The study's limitation lies in its focuses solely on Bali, thus potentially limiting generalizability. Nonetheless, it emphasizes collaborative stakeholder efforts and sustainable practices integration in conference management. It highlights the importance of investing in technology and local capacity building to improve feasibility. Future research could explore other destinations' experiences regarding long term economic and environmental impacts of green-hybrid conference initiatives.

**Keywords:** post-covid-19; green-hybrid conference; feasibility; Bali; sustainable event management

### 1. Introduction

Bali is renowned not only for its cultural attractions and stunning natural landscapes but also as a venue for MICE (Meetings, Incentives, Conferences, Exhibitions) activities, hosting numerous national and international conferences. These events, such as the Asia Pacific Cooperation (APEC) Meeting 2013, Annual Meeting of the International Monetary Fund & World Bank Group

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Submitted: 25 February 2024; Accepted: 6 April 2024; Published: April 2024



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(IMF-WBG) in 2018, the G20 Summit in 2022, and the ASEAN Summit in 2023, not only stimulated Bali's tourism economy through hotel bookings, catering services, and event organization but also serve as a potent promotional platform (Fenich, 2012; Katsitadze & Natsvlishvili, 2017), enhancing Bali's reputation as a comprehensive tourism destination.

Since the 1960, Bali has aimed to excel in conferences, starting with the Bali Beach Hotel in 1963, built by President Sukarno with war reparations money from Japan; the Pertamina Cottage Hotel witnessed the Organization of the Petroleum Exporting Countries (OPEC) Summit in 1980, boosting Bali's reputation (Hitchcock & Putra, 2018 [2007]; Vickers, 2012; Picard 1996). The Indonesia Tourism Development Corporation (ITDC) and subsequent venues like Bali International Convention Center (BICC) and Bali Nusa Dua Convention Center (BNDC) further solidified Bali's status as a top MICE destination in Southeast Asia. The establishment of Garuda Wisnu Kencana (GWK) as a landmark in Bali, offering various areas for holding events, has also contributed to the list of venues for large-scale events in Bali (Verheijen and Putra, 2019; Putra et al, 2020). Despite its allure, the Covid-19 pandemic disrupted its momentum (ICCA, 2020; Nuruddin et al., 2020).

The outbreak of the Covid-19 pandemic from 2019 to 2021 had severe repercussions on the global tourism industry, including conferences, with stringent restrictions leading to a significant decline in conference services worldwide (Gössling et al., 2020; ICCA, 2020). Despite the shift to virtual conferences, business activities remained subdued, resulting in 85% substantial financial losses for MICE stakeholders in Indonesia and globally (ICCA, 2020; Putri & Rudatin, 2020). Consequently, the pandemic underscored the need for reevaluating traditional conference practices and exploring alternative, sustainable solutions.

Amid the Covid-19 pandemic and the growing environmental concerns since the mid-2000s (Ranacher & Pröbstl-Haider, 2014), the MICE industry has pivoted towards sustainability, with the emergence of green conference emphasizing social, environmental, and economic benefits. In response, Bali, a prominent conference destination (Saharani & Herawati, 2022), is adapting to these trends by embracing green-hybrid conferences management to support post-Covid-19 tourism recovery and sustainable development. Green-hybrid conferences integrate environmentally friendly practices with virtual components, reducing carbon footprints and promoting resource efficiency (UNEP, 2009; Sox et al., 2013; Dolf & Teehan, 2015; Chirieleison et al., 2020). However, the adoption of green-hybrid conferences in Bali faces various obstacles, including technological constraints, inadequate infrastructure for virtual conferencing, and a lack of stakeholder awareness regarding

sustainable event management benefits. Understanding and addressing these barriers is crucial for the successful implementation of green-hybrid conference management in Bali and enhancing its reputation as a sustainable conference destination (Presbuty and Edwards, 2005).

By delving into the specific obstacles faced by Bali's conference sector during the pandemic and assessing the potential environmental impacts of traditional conference formats, this study aims to provide comprehensive insights into the feasibility of adopting green-hybrid conference management. Furthermore, by identifying existing barriers and limitations, this research seeks to offer practical recommendations for overcoming obstacles and advancing sustainable event practices in Bali's conference industry. This aligns with Bali's goal to attract more international conferences while preserving its environment (Crouch et al, 2019; Dalgiç and Birdir, 2020; Santos et al, 2020a; Amorim et al., 2021).

## 2. Literature Review

The literature review synthesizes previous research exploring various aspects of MICE events, green meetings, hybrid meetings, and sustainable tourism, offering valuable insights into activity management across different topics, and providing benchmarks for upcoming research endeavors. Researchers such as Backman (2018), Getz (2022), and Fazrin and Rachmawati (2022) have explored management strategies to enhance event sustainability, employing qualitative and case study approaches involving interviews, observations, and document analysis. Their work provides valuable context for understanding green conference management in a hybrid format.

Studies by Sox (2014), Sox et al. (2017), and Hamm et al. (2018) have investigated virtual and hybrid meetings, identifying significant opportunities for transitioning from face-to-face to virtual and hybrid formats, particularly with robust technological support. While their research predates the Covid-19 pandemic, it aligns with the current study's focus on exploring post-pandemic green-hybrid conferences.

Nilsson (2020) and Yuniati (2021) have examined the implementation of virtual and hybrid events during the Covid-19 pandemic, finding that despite the benefits of face-to-face interactions in conference settings, interest in such activities has waned compared to virtual and hybrid alternatives. Their research, like the present study, reflects the shift towards hybrid models in conference management.

Arcana (2014) investigated the application of sustainable event management principles in MICE activities in the Nusa Dua tourist area, emphasizing the importance of mitigating negative impacts while benefiting

local communities and stakeholders. This study's relevance lies in understanding how sustainable management practices can be integrated into the organization of green-hybrid conferences in Bali, particularly in key conference hubs.

Mahadewi et al. (2014) investigated factors influencing tourists' revisit to Bali as a MICE destination, utilizing Structural Equation Modeling (SEM) analysis. Their findings underscore the significance of MICE destination attributes, promotional efforts, satisfaction levels, and overall destination image influencing tourists' decisions to revisit Bali for MICE purposes. This research serves as a reference for the present study, which focuses on leveraging green-hybrid conferences to promote Bali's image as an environmentally friendly conference destination.

The interconnected nature of conference tourism with various industries such as trade, transportation, hospitality, and technology, as highlighted by Mananda (2017), Thirachaya (2019), and Ramely et al. (2022), underscores its significance. This type of conference tourism, often involving substantial resources, is characterized by high-spending visitors compared to leisure tourists. Like the current study, their research underscores the potential of conference tourism to contribute to sustainable development across economic, ecological, and social dimensions through integrated promotional strategies attracting domestic and international conference attendees.

Dickson and Arcodia (2022) caution against the unchecked growth of tourism, emphasizing potential negative impacts on economic, social, and environmental sectors. They identify issues like excessive waste production and energy consumption associated with conference activities, alongside concerns about social and cultural disruption. Their findings align with the necessity of incorporating green and sustainable principles into conference management, a viewpoint also supported by the present study.

Sunarta & Arida (2017) explore the concept of sustainable tourism, emphasizing ecological, social, cultural, and economic considerations. Their perspective resonates with the current research, emphasizing the importance of balancing environmental preservation, social acceptance, cultural sensitivity, and economic viability in tourism activities, including conferences.

The review contributes to advancing sustainable tourism aligned with the Sustainable Development Goals (SDGs) by 2030 (UNWTO, 2012) and enhancing Bali's competitiveness as a conference destination. It highlights Bali's opportunity to lead as a green conference destination regionally and globally through strategic planning and disciplined implementation, particularly amidst the accelerated adoption of green practices due to the pandemic-induced shifts towards virtual and hybrid conference formats. As is evident from previous studies, the emerging niche and trend of green-hybrid conferences in Bali are

still under research. Exploring this trend will not only reveal Bali's potential for profitable tourism business but also contribute to its efforts toward quality tourism during the post-Covid-19 recovery, thus enhancing its sustainability.

### **3. Method and Theory**

#### **3.1 Method**

This study aims to thoroughly examine the potential and obstacles of organizing green-hybrid conferences (GHC) during and after the Covid-19 Pandemic in Bali. The research methodology employed qualitative descriptive research methods, selected for their suitability in exploring complex phenomena and providing rich insights into stakeholders' perspective. Data collection was conducted through various techniques, including observations at conferences held in Bali in 2023, in-depth semi-structured interviews with 37 stakeholders from the tourism industry, particularly MICE (Meetings, Incentives, Conferences, Exhibitions), literature review, and Focus Group Discussions (FGD) with 7 key informants. These interviews and FGD were conducted between May and November 2023.

The selection of qualitative descriptive research methods was appropriate for this study as it allowed for in-depth exploration of stakeholders' experiences, perceptions, and opinions (Sugiyono, 2020) regarding GHCs in Bali. The use of semi-structured interviews and FGD facilitated the gathering of comprehensive data while allowing for flexibility in exploring emergent themes and issues. Ethics clearance was obtained for this study to ensure that research participants' rights were protected. The research adhered to ethical guidelines and protocols governing research involving human subjects.

Data analysis involved rigorous procedures, including data reduction, presentation, and verification/conclusion drawing, was carried out. Qualitative data from interviews and FGD were meticulously analyzed using thematic analysis technique to identify patterns, themes, and insights related to the potential and obstacles of GHCs in Bali. Triangulation was employed to enhance data credibility, combining multiple data collection methods and source to validate the findings (Sugiyono, 2020).

The informants, comprising a diverse range of stakeholders, were carefully chosen to ensure comprehensive insights into the conference organizing sector in Bali. This included officials from various government bodies such as the Ministry of Tourism and Creative Economy, the Expert Group of the Governor of Bali in the Tourism Sector, the Tourism Office of Bali Province, the Tourism Office of Badung Regency, the Tourism Office of Denpasar City, and The Central Bank of Indonesia Bali. Additionally, participants from the MICE industry, including Professional Conference Organizers (PCOs), conference

venues primarily located in the ITDC area in Nusa Dua, Tuban, Kuta and Seminyak, vendors, and associations, were selected based on their expertise and involvement in the sector. Academic experts, media representatives, and members of society were also included to provide varied perspectives, ensuring the suitability of the informants concerning the study (Heryana, 2018; Patton, 2002). The single Focus Group Discussion (FGD), held on November 28<sup>th</sup>, 2023, was carefully orchestrated to encourage diverse discussions, and ensure balanced representation across all stakeholder groups. Furthermore, the FGD served to validate the analyses obtained from the interviews. It is worth noting that the seven key individuals participating in the FGD also served as informants during the interview process.

### 3.2 Theory

This study is grounded in two theoretical frameworks: Perception Theory and Sustainable Tourism Theory. These frameworks were selected for their ability to dissect the formulation of potentials and obstacles in green-hybrid conference management, enabling a comprehensive analysis of the information and responses provided by the informants regarding their understanding of the issues.

#### 3.2.1 Perception

The theory on perception is elucidated through its linguistic roots. Originating from the Latin word “perceptio” or “percipio” (Schacter & Kenan, 2011), perception entails the process of assembling, recognizing, and interpreting sensory data to comprehend one’s surroundings. Perception can be understood as a reaction, encapsulating mental images retained in post-observation consciousness (Sujanto, 1986).

Despite encountering similar situations, individuals or groups may exhibit diverse perceptions due to variations in traits, personalities, experiences, and cognitive capacities. In the context of this study, the perception of participants, managers, and suppliers/vendors of green-hybrid conferences in Bali is pivotal in evaluating the ongoing event and shaping future conferences.

The theory of perception aligns with the research objectives by offering insights into how stakeholders perceive and evaluate green-hybrid conferences. Understanding these perceptions is crucial for enhancing the quality and effectiveness of such conferences in Bali, particularly in the context of managing them during and after the Covid-19 pandemic. Therefore, the theory of perception serves as a valuable framework for addressing the research problem and informing discussions on the potential and constraints of green-hybrid conference management in Bali.

### 3.2.2 *Tourism Sustainability*

The concept of Sustainable Tourism, defined by UNEP (2004) and the Federation of Nature and National Parks (1993), emphasizes the preservation of natural, economic, and socio-cultural integrity while managing tourist activities sustainably (Sunarta & Arida, 2017; Pickel-Chevalier, Bendesa, & Putra, 2019). Sustainable conference management has emerged as an extension of these principles, offering economic benefits to destinations and local communities. Positive impacts include direct and indirect spending by participants, increase property value, business development, and job creation (Mananda, 2017; Allen et al, 2010).

These principles can guide the organization of green-hybrid conferences by promoting environmentally friendly practices, conservation-oriented approaches, community-based tourism, industry awareness, and local resource utilization. Implementing such measures can facilitate Bali's transition to a greener and more suitable tourism model. However, further discussion on the relevance of these principles to Sustainable Tourism and acknowledgement of the scholars quoted is necessary for academic rigor and integrity.

## 4. Results and Discussion

Despite Bali's success in hosting various international conferences, the need to enhance resources and service quality must not cease. Many technological advancements demand that Bali equip itself to remain competitive as a preferred conference destination (Sox, 2014; Sox et al., 2017, and Hamm et al., 2018). Global paradigm shifts such as climate change and the UN's Sustainable Development Goals (SDGs) agenda cannot be ignored by Bali but must be considered for conference implementation. Stakeholders involved in hospitality services for MICE in Bali have no choice but to continually enhance Bali's resources to align with market demands and global trends.

Based on the observations of several conferences held in Bali in 2023, it can be noted that stakeholders have implemented the following measures as part of the transition towards green-hybrid conferences, although they still require commitment in their execution and the need for increased awareness among various stakeholders. Some of these include:

1. Minimize the use of printed materials: Efforts to reduce the use of printed materials are evident, utilizing LED backdrops, selecting decorations and food/beverage packaging made from local and environmentally friendly materials to reduce plastic.
2. Encourage conservation-oriented conferences: Utilization of open spaces to reduce reliance on air conditioning and incorporating cultural elements by inviting cultural artists to participate in conference activities. This is evident

from the increasing preference for outdoor venues for events such as dinners, including locations like Peninsula in Nusa Dua, Taman Bhagawan in Tanjung Benoa, Puri Bhagawan in Jimbaran, and Garuda Wisnu Kencana (GWK) in Jimbaran, to name a few. GWK, which took 28 years to complete, was inaugurated in 2018. It has been frequently used as a prestigious event venue even before its completion, such as the venue for the World Culture Forum in 2013 (Verheijen and Putra, 2019; Putra et al, 2020), and the venue for the Gala Dinner for G20 Heads of State attending G20 Summit in Bali in 2022. GWK not only provides vast and diverse spaces but also represents Indonesian culture in general, and Balinese culture specifically.

3. Align conference activities with conservation interests: Alignment of conference agendas with conservation interests through additional events focused on nature preservation, such as tree planting, mangrove reforestation, turtle hatchling releases, and fish seed releases.
4. Support community-based tourism growth: Support measures for the growth of community-based tourism through initiatives such as visits to tourist villages, such as Tenganan Village in Karangasem, Penglipuran Village in Bangli, Jati Luwih in Tabanan, and many others.
5. Popularize environmental awareness and responsibility: Efforts to increase environmental awareness and responsibility within the tourism industry and its supporting sectors to adopt environmentally friendly development practices.
6. Utilize local resources: Collaboration with micro, small, and medium enterprises (MSMEs) to supply conference materials like kits and souvenirs, with opportunities for MSMEs to showcase their products during the event for purchase by conference participants.

Stakeholders are engaging in these actions due to a growing collective awareness of Bali's response to serious challenges, such as escalating waste issues, aiding the recovery of micro and small business owners affected by the Covid-19 pandemic's economic upheaval, and fostering Bali's environmentally friendly and sustainable image. With the conscious, disciplined, and sustainable implementation of the afore mentioned measures, Bali's tourism industry can progressively transition towards a greener and more sustainable model.

This research succeeded in identifying the potential and obstacles in organizing a green-hybrid conference post-Covid-19 pandemic in Bali. There are three potentials and three obstacles that Bali has related to holding a green-hybrid conference. These three potentials are: (i) the potential for adequate infrastructure both in terms of quality and quantity; (ii) human resources that are adaptive, friendly, and have a tourism-educational background; as well as (iii) supporting resources such as natural resources, Balinese culture, and arts.



The three obstacles faced by Bali are namely: (i) the latest technological constraints; (ii) human resources who still have a low understanding of green and hybrid conferences, and (iii) logistical support which is often imported from outside Bali. The interaction between the potentials and obstacles can affect the feasibility of hosting a green-hybrid conference in Bali. For instance, while adequate infrastructure serves as a strength, limitations in current technology can pose a significant barrier to ensuring the event's quality. Similarly, adaptable human resources can help overcome barriers in understanding green-hybrid conferences, yet logistical support constraints may restrict the event's capacity. Therefore, when evaluating the feasibility of hosting a green-hybrid conference in Bali, it is crucial to consider how these factors interact and how these can be effectively addressed or managed.

#### ***4.1 Management Potential for Green-Hybrid Conference Implementation***

Hosting a green-hybrid conference (GHC) represents an adaptive measure within the MICE sector in post-Covid-19 Bali, leveraging the region's natural assets and supportive infrastructure. According to insights gathered from various stakeholders, the management of GHC post-pandemic in Bali is perceived to hold significant potential. Government officials, industry players, academics, community leaders, and media representatives collectively express strong confidence in the feasibility of implementing GHC on a substantial scale in Bali. Stakeholders within the conference industry echo these perceptions, citing increased demand from both domestic and international clients for sustainable offerings, with some specifically seeking venues certified for their sustainable practices.

Interviews with key figures such as Tjokorda Pemayun (Head of the Bali Government Tourism Office) and Made Sugiani (Marketing Head, Denpasar City Tourism Office) affirm their perceptions in the considerable potential of GHC implementation in Bali post-Covid-19. Government officials rate the potential scale of GHC very highly.

Pemayun: "...Commenting on Bali's strengths, stakeholders highlight its well-established brand, superior infrastructure, and safe, comfortable facilities, which position the region favorably for hosting green-hybrid conferences in the aftermath of the Covid-19 pandemic. Bali's successful hosting of prestigious events like the G20 high-level conference in 2022 and the ASEAN Summit in 2023 serves as a testimonial to its capability to ensure participant safety and comfort, thus enhancing its appeal as a conference destination in the future..." (Interview, June 7<sup>th</sup>, 2023).

Sugiani:” ... green-hybrid conferences hold promises due to their efficiency in terms of time and cost, facilitated by technological advancements that expedite organizational processes...” (Interview, June 13<sup>th</sup>, 2023).

These perceptions align with the recognition of Bali’s robust global brand, which serves as a foundation for shaping conference procedures in line with emerging trends in sustainability and hybridization. Moreover, Bali’s ample conference facilities, amenities, and infrastructure stand as evidence of its preparedness to accommodate large-scale events, aided by technological readiness that simplifies the implementation of such hybrid conferences.

Similar perceptions were echoed by MICE industry insiders, who, like government officials, acknowledged the considerable potential for organizing green-hybrid conferences (GHC) in Bali post-Covid-19. While most Professional Conference Organizers (PCOs) acknowledged the high potential of GHC in Bali, they also emphasized the need for meticulous planning and standardization to ensure successful implementation. The PCOs, with their in-depth understanding of the complexities involved, stressed the importance of establishing guidelines to streamline the execution of GHC in practical settings. Although some regulations in Indonesia already exist, they have not specifically addressed green-hybrid conferences, nor green conferences. Stakeholders, especially those directly involved in MICE activities, desire specific regulations governing the organization of green-hybrid conferences, with applicable norms serving as benchmarks for implementation in the field. Nevertheless, on March 19, 2024, the Global Sustainable Tourism Council (GSTC) introduced the GSTC MICE Criteria tailored for venues, event organizers, events & exhibitions. This initiative aims to steer businesses towards adopting sustainable practices considering the escalating emphasis on sustainability (GSTC, 2024). The GSTC MICE Criteria can be adopted by Bali’s stakeholders in the implementation of GHC.

Additionally, vendors involved in conference services highlighted Bali’s readiness in terms of human resources, international air accessibility, cultural richness, and the environmental benefits of GHC, contributing to its perceived potential for successful implementation. However, while Bali’s hospitality workforce is generally well-prepared, their familiarity and readiness in organizing green and hybrid conferences remain somewhat limited. Hence, this research is deemed essential to address this gap, as human resource preparedness is foundational in advancing green and hybrid concepts effectively.

Feedback gathered from venue representatives solidifies the notion that the green-hybrid conference model holds significant promise in Bali post-

Covid-19, supported by several factors:

1. Client demand: developed nations clients, like Singapore, the United States, and Europe, prioritize sustainable initiatives, seeking certified venues such as Hyatt, Accor, and Marriot, which demonstrate green efforts.
2. Virtual participation opportunity: Virtual options, especially for VIPs, ensure quality and prestige, maintaining standards even in a virtual setting.
3. Health and sustainability concerns: Societal focus on health and sustainability boosts green initiatives, aligning with broader environmental and social concerns.
4. Enhanced branding and conservation: Embracing green practices enhances Bali's brand, preserving its natural and cultural heritage, further enticing tourists.
5. Expanded conference reach: Virtual attendance options widen participation, reaching a broader audience.
6. Economic opportunities: In-Person attendance remains economically vital, while virtual participation offers additional revenue streams, enhancing income potential.

Venue representatives rate GHC implementation potential in Bali post-Covid-19 as high to very high, reflecting a growing preference for green practices, especially among international clients. However, domestic clients lag due to perceived cost line, highlighting the need for awareness campaigns.

Stakeholders across various sectors unanimously agree on the significant potential of green-hybrid conferences (GHC) in Bali post-Covid-19. GHC implementation not only boosts Bali's prestige but also aids marketing efforts. Effective broadcast management and improved internet infrastructure are vital for maximizing this potential. The anticipated scale for GHC organization in Bali post pandemic is deemed high to very high, underscoring the need to adeptly manage both potential and constraints for successful execution.

Analysis of data obtained from stakeholders reveals three key areas of potential for green-hybrid conference management in Bali: infrastructure, human resources, and other supporting resources.

#### 4.1.1 Infrastructure Potential

Bali possesses a robust infrastructure conducive to hosting green-hybrid conferences, bolstered by several supporting elements:

1. Diverse and high-quality venues: Bali features diverse high-quality venues for conferences, including convention centers, star-rated hotels, and resorts. Notable venues like the Bali Nusa Dua Convention Center (BNDCC), and the Bali International Convention Center (BICC) stand out, accommodating thousands of participants. These centers, situated within the ITDC Nusa

Dua enclave, offer easy access to upscale accommodations, restaurants, shopping malls, and spa facilities at the Bali Collection complex. Moreover, hotels such as Grand Hyatt, Sofitel, and Merusaka offer medium-sized meeting rooms accommodating up to 500-1,000 attendees, enhancing delegate participation. Research by Mananda (2017), Suryawardani et al. (2019), Thiracaya (2019), and Rameley (2020) underscores the link between the MICE business and supporting tourism factors. The infrastructure in areas where conferences are held in Bali provide significant impetus for economic growth. Photos 1 and 2 give a brief caption on how green-hybrid conferences have been held at the BNDCC and Hilton Nusa Dua.



Photo 1. GHC at BNDCC  
(Photos courtesy of Melali MICE)



Photo 2. GHC at Hilton Nusa Dua  
(Photos courtesy of Melali MICE)

2. Technological advancements and internet connectivity: Bali has made significant strides in enhancing its technological infrastructure and internet network, exemplified by the seamless execution of the G20 summit activities in 2022. Feedback from vendors and Professional Conference Organizers (PCOs) underscores the marked improvements in bandwidth provision to meet the hybrid demands across various venues simultaneously. Such enhancements necessitate substantial investment by internet service providers like Telkom and Biznet, including the development of robust network infrastructure to accommodate increased bandwidth requirements. Notably, the successful management of internet connectivity during the G20 summit attests to the pivotal role of investment in enhancing internet connectivity for ensuring the smooth operation of hybrid conferences. This reflects the findings of research conducted by Sox (2014), Sox et al. (2017), and Hamm et al. (2018) which emphasize the importance of robust technological support for organizing virtual or hybrid events. Photos 3 and 4 show how technology has been implemented by PCO in running a Green-Hybrid Conference in Bali.

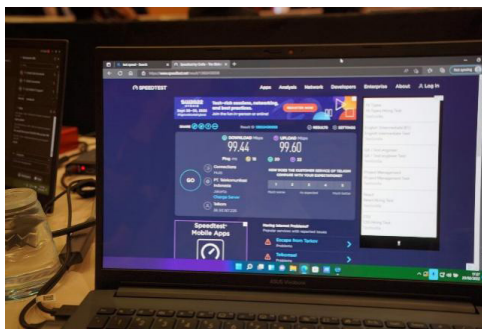


Photo 3. Hybrid Conference Equipment (Photos courtesy of Melali MICE)



Photo 4. Hybrid Conference Equipment (Photos courtesy of Melali MICE)

3. Safety and health protocols: Bali's proficiency in maintaining the safety and well-being of tourists can be seamlessly translated into the realm of conference organization. Noteworthy measures include the establishment of dedicated command centers by the Indonesian National Army and Police within the ITDC complex, serving as nerve centers for ensuring venue security, particularly during high-profile events attended by Heads of State or Ministers. Stringent adherence to health and security protocols remains paramount to safeguarding the welfare of conference delegates. This aligns closely with the findings of Hanaei et al. (2022), who emphasize the importance of organizing in person segments of meeting with thorough consideration of prevention and safety strategies. These strategies include risk assessments, implementing mitigation measures, ensuring venue and environmental sanitation, protecting participants, preventing diseases, and promoting the hybrid model. Photos 5 and 6 demonstrate the implementation of security and safety protocols during a conference in Bali attended by high-ranking officials.



Photo 5. Security and Safety Check (Photos courtesy of Melali MICE)

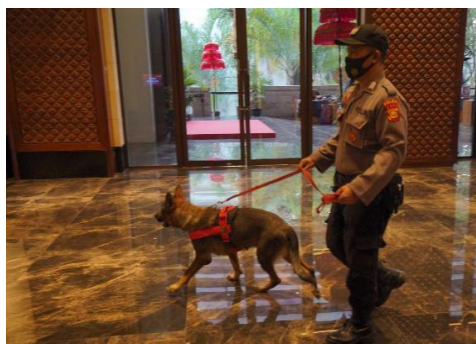


Photo 6. Security and Safety Check (Photos courtesy of Melali MICE)

4.1.2 Human Resource Potential

Apart from its infrastructure potential, Bali also has strong human resource potential to support holding green-hybrid conferences.

1. Friendly and skilled human resources (HR) have been proven capable of serving tourists for decades, so that Bali has its own charm from the human side. This can be proven from the level of foreign tourist visits to Bali which continues to increase from year to year. This can be seen from data on foreign tourist visits to Bali in 2018-2023 in Table 1.

Table 1. Data on Foreign Tourist Visits to Bali 2018-2023

No.	2018	2019	2020	2021	2022	2023 (Jan-Nov)	Resource
1	6.070.473	6.275.210	1.069.473	51	2.155.747	4.790.568	CBSB
2	6.056.822	6.268.999	1.069.826	51	2.155.745	4.790.567	MTCE

Source: Central Bureau of Statistics Bali (CBSB) and Ministry of Tourism and Creative Economy (MTCE)

Data regarding foreign tourist arrivals was sourced from 2018, revealing a noticeable uptick in numbers from 2018 to 2019, amounting to approximately two hundred thousand individuals, marking a growth rate of roughly 3.33%. This upward trend mirrored previous years' experiences. However, from 2020 to 2022, Bali witnessed a stark decline in tourist arrivals due to the onset of the Covid-19 pandemic, with 2021 marking the lowest point in decades. The trend reversed course from 2022 to 2023, with foreign tourist arrivals nearly reaching 4.8 million.

2. The adaptability and flexibility of Balinese human resources are evident in their swift adjustment to various challenges, including the adoption of new habits following the Covid-19 outbreak. Moreover, Balinese individuals demonstrate a remarkable openness and aptitude for learning foreign languages, minimizing communication barriers.
3. The continuous improvement in the quality of human resources is evidenced by the presence of numerous universities and vocational schools offering tourism-related programs in Bali. This suggests that the younger generation in Bali possesses enhanced knowledge and skills in catering to the needs of visitors, whether for leisure, conferences, or other purposes. The proliferation of universities and vocational schools offering tourism programs indicates a growing public interest in pursuing studies in this field.



Photo 7. Registration Team (HR)  
(Photo's courtesy of Melali MICE)



Photo 8. Welcome Ushers (HR)  
(Photo's courtesy of Melali MICE)

#### 4.1.3 Potential Supporting Resources

Bali boasts a wealth of supporting resources vital for its thriving tourism industry. Its rich cultural heritage and artistic expressions are major attractions, drawing millions of tourists eager to immerse themselves in the vibrant music, dance (such as Kecak and Barong Dance), painting, weaving, and sculpture. Highlighted by the renowned Garuda Wisnu Kencana Statue, the third largest statue in the world, these artistic endeavors serve as statements to Bali's cultural richness. GWK is evidence that Balinese cultural identity has evolved from a national, top-down level as classic cultural tourism to hosting international events, allowing Balinese culture to connect with the global world (Verheijen and Putra, 2019; Putra et al., 2020). These creative pursuits, infused with the Balinese people's ingenuity and aesthetic flair, significantly contribute to Bali's appeal as a cultural haven. Furthermore, the island's natural splendor and diverse landscapes, encompassing mountains, hills, beaches, rice fields, gardens, cliffs, waterfalls, and more, combine to create a multifaceted and captivating tourism destination.

Given these inherent potentials, conferences held in Bali often enjoy higher attendance rates compared to similar events held elsewhere. Venue representatives and Professional Conference Organizers (PCOs) attest to this observation, based on feedback received from event owners.

Overall, informants assess the feasibility of organizing green-hybrid conferences (GHC) in Bali post-Covid-19 as high. The assessment is attributed to organizers' adaptability to new norms and an increasing awareness of sustainability practices. Various stakeholders, including PCOs, associations, vendors, academics, community representatives, and media personnel, express unanimous agreement on Bali's high potential for hosting such events. Feedback gathered from Focus Group Discussions (FGDs) further validates Bali's potential across infrastructure, human resources, and other supporting resources.

## **4.2 Management Constraints in the Implementation of Green-Hybrid Conference**

Hybrid meetings entail a blend of both in-person and online participation concurrently (Fryatt et al., 2012). According to the interviews conducted, all respondents have participated in online hybrid conferences or meetings. They noted several challenges encountered particularly during the initial stages of transitioning to online meetings, notably during the onset of the Covid-19 pandemic. These challenges encompassed technical issues, human resource constraints, and shortages in supporting resources. The subsequent analysis presents insights gleaned from interviews with key stakeholders in the MICE sector regarding constraints in managing green-hybrid conferences (GHC) in Bali.

Overall, respondents indicated that Bali faced relatively low obstacles in organizing GHC post-Covid-19 due to its considerable experience in hosting such events and the adaptability of its stakeholders in navigating challenges. Several quotes from interviews were explored concerning obstacles encountered in implementing GHC in Bali post-pandemic. Responses revealed various hurdles faced by industry players.

A MICE entrepreneur, Ketut Jaman, identified internet connectivity issues as a primary post-pandemic obstacle. Additionally, he highlighted a shortage of skilled labor and the need for high-standard equipment, predominantly imported, as other challenges. (Interview: June 15<sup>th</sup>, 2023). A local Bali PCO, Kesuma Asih, acknowledged Bali's readiness as a MICE destination demonstrated by its successful hosting of the G20 conference. However, she emphasized the persisting challenge of internet connectivity and the scarcity of proficient workers to swiftly address technical issues (Interview: June 14<sup>th</sup>, 2023).

Opinions from stakeholders representing different sectors collectively suggested that Bali's obstacles in hosting green-hybrid conferences were relatively manageable due to its extensive experience and the resourcefulness of its industry players in overcoming challenges.

The observations made reinforce respondents' assertions, particularly regarding technical hurdles encountered during the initial stages of virtual and hybrid conference hosting. With accumulating knowledge and experience over time, these obstacles have gradually diminished, allowing for more professional implementation of hybrid conferences.

The identified obstacles were validated during a Focus Group Discussion (FGD), with all participants concurring on the challenges faced in hosting green-hybrid conferences in Bali. Despite persistent challenges, Bali remains a promising destination for hosting green-hybrid conferences (GHC) post-Covid-19, given its ongoing efforts to address and mitigate obstacles.



#### 4.2.1 *Technical Obstacles*

Based on the information gathered from interviews and Focus Group Discussions (FGDs), four technical issues commonly encountered during hybrid meetings were identified: blurry image display, intermittent sound and image, potential disappearance of the display, and online participants being disconnected from the network, partly due to limited participant quotas. One of the contributing factors is the organizers' lack of understanding regarding the necessary internet bandwidth required for optimal image and sound display during a hybrid meeting. Additionally, participants also need to be knowledgeable about the required bandwidth and quota to ensure smooth participation without disruptions.

During the FGD, Perwira Duta, a MICE Practitioner, emphasized the importance of accurately calculating internet requirements.

“...We often miscalculate internet needs, as we typically base our calculations on the number of participants. However, each participant may use multiple devices such as laptops, phones, and tablets. Thus, while we may prepare for 200 participants, the actual demand during the event could triple. This results in slow internet speeds...” (FGD: November 28<sup>th</sup>, 2023)

Many respondents noted that at the outset of organizing online activities during the peak of the Covid-19 pandemic, there was a general lack of understanding about the process and participation in online events. However, as time progressed and experience grew, such obstacles have become less frequent. Nonetheless, technical challenges extend beyond internet connectivity to include the availability and functionality of equipment and other essential hybrid tools required for smooth and clear image and sound transmission.

#### 4.2.2 *Human Resource Constraints*

In holding hybrid meetings, informants also often found a situation where, when technical problems occurred, the technicians on duty were not able to quickly carry out trouble shooting (finding and resolving problems) so that they seemed unprofessional. This lack of alertness often stems from limited knowledge and lack of experience, so technicians are working based on momentary intuition. In this case, the informants assessed that it was necessary to hold special training courses so that human resources involved in organizing hybrid conferences mastered the equipment and were more alert in handling technical obstacles in the field.

Apart from the HR constraints in organizing hybrid conferences, informants also felt that HR knowledge in organizing green conferences really needed to be improved. Stakeholder commitment in this case is very important, so that specific guidelines and regulations can go hand in hand with the implementation in the field. One way of improving the quality of human resources can be realized by providing socialization for them both within the scope of work, such as within the scope of PCO, venues and vendors, as well as socialization in the community at large.

#### 4.2.3 Constraints in the Availability of Supporting Resources

Organizing large-scale conferences in Bali necessitates the provision of extensive logistics, encompassing food and beverages, supplies, equipment, vehicles, and more, all of which require high technical specifications. Oftentimes, these logistical requirements surpass the local availability in Bali, thus necessitating imports from outside the region. This reliance on external sources for logistics inflates prices due to transportation costs.

Meeting logistical needs includes ensuring the availability of environmentally friendly vehicles, clean or renewable energy sources, waste management systems, and other sustainability measures. Unfortunately, Bali currently lacks the capacity to fulfill these requirements. It is imperative to assess Bali's current capabilities in meeting conference logistics demands to devise strategies for local fulfillment in the future. These considerations are encapsulated in Bali Governor Regulation number 99 of 2018, which outlines the utilization of Balinese agricultural, fishery, and local industrial products. However, compliance with these regulations remains a challenge for Bali.

Several other regulations support the organization of green conferences, such as Bali Governor Regulations number 97 of 2018 and number 47 of 2019, which respectively prohibit the use of single-use plastics and establish source-based waste management practices. Additionally, Bali Governor Regulation numbers 45 and 48 of 2019 promote the use of solar power plants and battery-based electric vehicles. However, awareness of these regulations within the MICE industry is limited, highlighting the need for increased socialization efforts.

The government should engage business actors and tourism stakeholders to enhance awareness and secure commitment to comply with these regulations. Establishing a transparent mechanism for monitoring and evaluating compliance will ensure that the benefits of these regulations are realized and facilitate ongoing improvements. Effective coordination among stakeholders is crucial for Bali's progress in this regard. Tables 2 to 6 in the appendix provide a summary of GHC management constraints during and after the Covid-19 pandemic in Bali, based on stakeholder perceptions obtained through interviews.

### **4.3 Potential Management Strategy**

To optimize the potential for holding a green-hybrid conference (GHC) after the Covid-19 pandemic in Bali, several management strategies can be implemented:

1. **Investment in technology:** Governments and the private sector need to invest in improving technological infrastructure and internet networks to ensure optimal conference quality.
2. **Workforce training:** Training and development of the workforce with specific skills in hybrid conference delivery can strengthen the quality of services offered.
3. **Government and industry collaboration:** Government collaboration with industry conference organizers, venues, vendors, and technology providers can help overcome logistical and cost challenges.
4. **Local equipment development:** Encouraging local production of conference equipment can reduce dependence on imports and reduce hosting costs.
5. **Preparation of regulations:** there need to be specific regulations governing the Management of GHC Implementation in Bali, so that all stakeholders have clear guidelines regarding implementation procedures to achieve green tourism in Bali.

The introduction of Global Sustainable Tourism Council (GSTC) MICE Criteria by GSTC in March 2024, spearheaded by Singapore, signifies Singapore's adeptness in implementing protocols for Green Conference management effectively (GSTC, 2024). The GSTC MICE Criteria serve as a guideline for MICE stakeholders globally, including those in Bali, particularly venues, event organizers, and event & exhibition. This is because the criteria, which prioritize sustainability in event management, are outlined in detail and clarity for each aforementioned stakeholder.

## **5. Conclusions**

Through an extensive analysis of data obtained from literature reviews, participatory observations, in-depth interviews involving 37 informants, and Focus Group Discussions (FGDs) with 7 key figures representing Bali's tourism stakeholders, it can be deduced that organizing a green-hybrid conference presents an effective strategy for revitalizing quality tourism in Bali post the Covid-19 pandemic. Numerous experiences of Bali in hosting international conferences like IMF meetings in 2018 and G20 summit in 2022 providing strong foundation for Bali to continue maintaining its destination image and reputations.

Collaborative efforts among stakeholders are paramount to ensure coherence in developing green-hybrid conferences in Bali. This entails aligning

regulations, fostering a shared understanding among all stakeholders, and ensuring harmonious implementation on the ground. The perceived benefits for Bali as a leading sustainable green-hybrid conference destination include environmental preservation and enhancing a community's well-being from economic and socio-cultural perspectives. This is linked to the triple bottom line concept, which encompasses economic profitability, social acceptability, and ecological sustainability.

This study successfully identifies both the obstacles and potentials inherent in hosting a green-hybrid conference in Bali. Notably, Bali possesses significant potential, including robust infrastructure capable of supporting world-class conference requirements such as venues, internet connectivity, and the implementation of security and health protocols. Furthermore, the region benefits from skilled workforce, characterized by adaptability, flexibility, and proficiency, fostered through tourism education. Additionally, Bali's rich cultural heritage and diverse natural resources serve as supplementary supporting assets. These factors instill confidence in the feasibility of organizing green-hybrid conference post Covid-19 Pandemic in Bali.

To effectively navigate these obstacles and potentials, it is imperative for Bali's tourism stakeholders to demonstrate commitment and rally support for regulations and policies conducive to fostering an enabling environment. Establishing a mechanism that serves as a guideline for Bali's tourism stakeholders, particularly those engaged in MICE activities, is crucial for organizing successful green-hybrid conferences in the post-Covid-19 era.

The identified obstacles encompass technological limitations, including the need for improvements in local internet networks and platforms, as well as the reliance on imported state-of-the-art hybrid and audio-visual equipment. Moreover, there exists a challenge pertaining to human resources, with a lack of full understanding and competency among personnel in organizing green-hybrid conferences. Additionally, constraints relating to supporting resources, particularly conference logistics such as food and beverage, environmentally friendly transportation, and specialized equipment, underscore the need for domestic capacity building to reduce reliance on imports.

The launch of the MICE Sustainable Roadmap 2022 by Singapore Tourism Board (STB) and Singapore Association of Convention & Exhibition Organizers & Suppliers (SACEOS) underscores Singapore's status as one of the leading MICE destinations in Asia and its steadfast commitment to sustainability goals ([visitsingapore.com](https://visitsingapore.com), 2024). SACEOS introduced the Singapore MICE Sustainability Certification on January 24<sup>th</sup>, 2024, aiming to equip and certify businesses for adopting sustainable practices in events and raising sustainability standards across Singapore's MICE industry ([visitsingapore.com](https://visitsingapore.com), 2024).

Bali should imitate Singapore in carrying out certification for the MICE stakeholders involved. Furthermore, STB's collaboration with SACEOS on the development of the GSTC MICE Criteria (GSTC, 2024) highlights Singapore's dedication to sustainable tourism, providing crucial tools for global industry players to excel in a sustainable tourism environment. Bali can adopt the GSTC MICE Criteria, aligning them with national and regional regulations, to effectively implement Green Hybrid Conference Management in Bali post-Covid-19. The best way to adopt and adapt becomes new homework for all members of the committed Bali MICE stakeholders.

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**Appendix**

Table 2. Government Perception of GHC Constraints

Stakeholder Component	Obstacles during Covid-19 Pandemic	Obstacles Post-Covid-19 Pandemic
<b>Government</b>	<ol style="list-style-type: none"> <li>1. Internet connection, especially insufficient bandwidth capacity</li> <li>2. Time difference</li> <li>3. Technical problems</li> <li>4. Lack of HR knowledge in handling hybrid conferences which leads to technical problems.</li> <li>5. The scale of constraints during the pandemic was classified as low to very low</li> </ol>	<ol style="list-style-type: none"> <li>1. Inadequate internet connection</li> <li>2. Technical obstacles.</li> <li>3. Scale of low to very low constraints.</li> </ol>

Source: Primary Data (Informants’ Interview: May-July 2023)

Table 3. Academics Perceptions of GHC Obstacles

Stakeholder Component	Obstacles during Covid-19 Pandemic	Obstacles Post-Covid-19 Pandemic
<b>Academics</b>	<ol style="list-style-type: none"> <li>1. Bad internet connection</li> <li>2. Technology</li> <li>3. Weather</li> <li>4. Teamwork</li> <li>5. Timeline</li> <li>6. Incompatible devices</li> <li>7. Scale of constraints from very low to high</li> </ol>	<ol style="list-style-type: none"> <li>1. Bad internet connection</li> <li>2. Scale of constraints from low to high</li> </ol>

Source: Primary Data (Informants’ Interview: May-July 2023)

Table 4. MICE Industry Perceptions of GHC Obstacles

No	Stakeholder Component	Obstacles during Covid-19 Pandemic	Obstacles Post-Covid-19 Pandemic
1.	<b>PCO</b>	<ol style="list-style-type: none"> <li>1. Bad internet connection</li> <li>2. Expensive internet connection</li> <li>3. Lack of competent and knowledgeable human resources in the field of technology that supports hybrid conferences.</li> <li>4. The initial obstacles were quite high due to lack of knowledge.</li> <li>5. Obstacles decrease as experience is accumulated.</li> <li>6. The scale of constraints is assessed as low to very low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Internet connection problems</li> <li>2. Inadequate equipment</li> <li>3. Less skilled human resources</li> <li>4. Scale of constraints from low to very low.</li> </ol>

No	Stakeholder Component	Obstacles during Covid-19 Pandemic	Obstacles Post-Covid-19 Pandemic
2.	<b>Vendors</b>	<ol style="list-style-type: none"> <li>1. Inadequate and unstable internet connection</li> <li>2. The scale given is low to very low</li> </ol>	<ol style="list-style-type: none"> <li>1. Limitations in logistics availability, imports from outside Bali, such as LEDs, audio systems and vehicles.</li> <li>2. The internet network in Bali is adequate, but it still needs higher power and specifications for maximum results</li> <li>3. There is no price benchmark. from the provider</li> <li>4. Scale of low to very low constraints</li> </ol>
3.	<b>Venues</b>	<ol style="list-style-type: none"> <li>1. Poor, inadequate, and unstable internet connection</li> <li>2. Equipment is inadequate and stable electricity must be provided.</li> <li>3. A contingency plan is needed to overcome the obstacles experienced.</li> <li>4. Green concepts are expensive and require investment</li> <li>5. Regulations are needed to oversee the planning, implementation, and evaluation of the GHC concept in Bali.</li> <li>6. The scale of constraints is from low to very low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Poor/unstable/ inadequate internet connection</li> <li>2. Hybrid conference support equipment is still a major obstacle.</li> <li>3. Scale of constraints from very low to low.</li> </ol>
4.	<b>Association</b>	<ol style="list-style-type: none"> <li>1. Bad internet connection</li> <li>2. Environmentally friendly food and drink issues</li> <li>3. Accessibility</li> <li>4. Waste management.</li> <li>5. The scale of constraints is from low to very high.</li> <li>6. Low on internet connection and very high on food and drink and accessibility</li> </ol>	<ol style="list-style-type: none"> <li>1. Constraints on poor internet access</li> <li>2. Inadequate equipment</li> <li>3. Use of plastic bottles</li> <li>4. Scale of obstacles from no obstacles to low</li> </ol>

Source: Primary Data (Informants' Interview: May-July 2023)

Table 5. Community Perceptions of GHC Obstacles

Stakeholder Component	Obstacles during Covid-19 Pandemic	Obstacles Post-Covid-19 Pandemic
Public	<ol style="list-style-type: none"> <li>Poor, inadequate and unstable internet connection.</li> <li>Constraint scale is very low to low.</li> </ol>	<ol style="list-style-type: none"> <li>No obstacles encountered.</li> <li>Because it was planned well</li> <li>Constraints are considered low</li> </ol>

Source: Primary Data (Informants’ Interview: May-July 2023)

Table 6. Media Perception of GHC Obstacles

Stakeholder Component	Obstacles during Covid-19 Pandemic	Obstacles Post-Covid-19 Pandemic
Media	<ol style="list-style-type: none"> <li>Shows that are still not good and fit on one screen from various countries</li> <li>Problems with the internet network system because it is slow, inadequate (bandwidth), and often has problems.</li> <li>The scale of obstacles is still high</li> </ol>	<ol style="list-style-type: none"> <li>Internet Network</li> <li>Equipment and Technology</li> <li>The scale of the constraints given is high</li> </ol>

Source: Primary Data (Informants’ Interview: May-July 2023)

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