

Green Hotel Practices Based on Earth Check Certification at the Apurva Kempinski Bali to Support Sustainable Development

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Abstrak: Penelitian ini bertujuan untuk mengetahui implementasi praktek-praktek hotel hijau yang diterapkan oleh hotel Apurva Kempinski Bali. Dianalisis dengan indikator yang dikembangkan oleh Earth Check yang dikenal sebagai 10 area kinerja utama untuk bisnis akomodasi perhotelan. Earth Check adalah satu-satunya program benchmarking dan sertifikasi global untuk perjalanan dan pariwisata berkelanjutan. Metode pengumpulan data yang digunakan adalah dengan melakukan wawancara dengan informan kunci dan pendukung dari internal dan eksternal hotel, teknik observasi menggunakan observasi partisipan, studi pustaka, dan teknik dokumentasi. Metode analisis data yang digunakan adalah penelitian kualitatif melalui data transkrip, reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian ini menunjukkan bahwa hotel Apurva Kempinski Bali telah memenuhi persyaratan sertifikasi dan telah menerapkan praktik hotel hijau di dalam kawasan hotel untuk mendukung pembangunan berkelanjutan yang meliputi efisiensi energi, sumber daya air tawar, pengelolaan air limbah, pengelolaan limbah padat, ekosistem dan konservasi, perencanaan tata guna lahan, perlindungan kualitas udara, pengelolaan sosial budaya hingga pengelolaan zat berbahaya. Tetapi beberapa perbaikan perlu diperhitungkan seperti evaluasi potensi pembangkit energi terbarukan (misalnya, angin, matahari), tambahan pemasangan kontrol cerdas AC dan pendingin, tempat sampah terpisah dengan kode warna di area tamu, dan bahan atau kemasan yang digunakan untuk fasilitas kamar dan tamu yang berkelanjutan. Akhirnya, pada kesimpulan dari penelitian ini, hotel Apurva Kempinski Bali siap untuk mengikuti sertifikasi Earth Check dengan perbaikan yang disebutkan di atas.

Kata Kunci: Sertifikasi Earth Check, Hotel Hijau, Pembangunan Berkelanjutan, Tujuan Pembangunan Berkelanjutan

Abstract: This research aims to find out the implementation of green hotel practices implemented by the Apurva Kempinski Bali. Analyzed by the indicators developed by Earth Check known as 10 key performance areas for hotel-accommodation business. Earth Check is the only global benchmarking and certification program for sustainable travel and tourism. Methods of data collection used are by conducting interviews with key and supporting informants from internal and external the hotels, observation techniques using participant observation, literature review, and documentation techniques has been done. The data analysis method used is qualitative research through transcript data, data reduction, data displaying, and drawing the conclusion. The result of this research shows that the Apurva Kempinski Bali has fulfilled the requirements of the certification and has applicated the green hotel practices within the hotel area to support the sustainable developments including energy efficiency, freshwater resources, waste-water management, solid waste management, ecosystem and conservation, land use planning, air quality protection, management of social and cultures to harmful substances management. But some improvements need to be taken into account such as the renewable energy generation (e.g., wind, solar) potential evaluation, additional air conditioner and chiller smart controls, color-coded garbage bin in the guest area, and sustainable room amenities materials. Finally, at the conclusion of this research, the Apurva Kempinski Bali is ready to join the Earth Check certification with the improvements stated above.

Keywords: Earth Check Certification, Green Hotels, Sustainable Development, Sustainable Development Goals

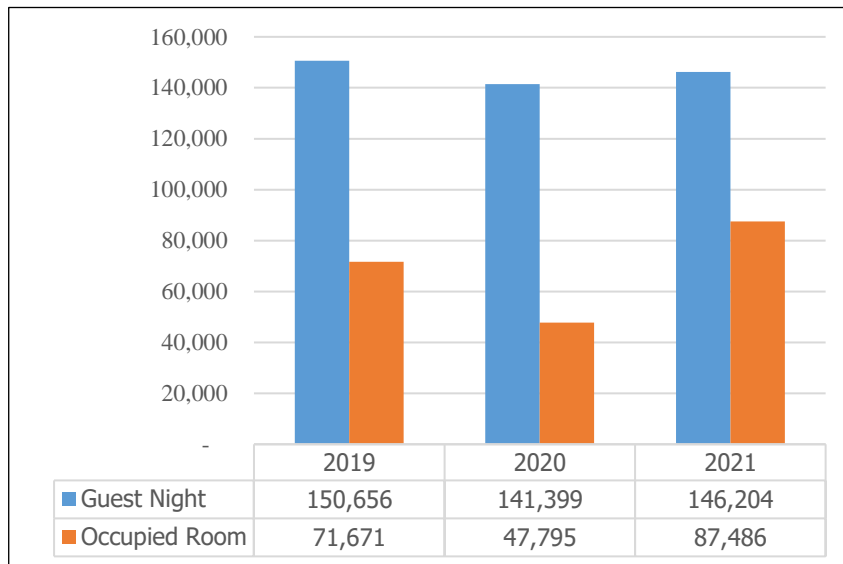
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Introduction

One important aspect of climate change is the increase in average temperature, which will not only have direct physio-logical effects on all species but also indirectly modifies abundances, interaction strengths,

food-web topologies, community stability, and functioning (Brose et al., 2012). Climate change is impacting ecosystems through changes in mean conditions and climate variability, coupled with other associated changes such as increased ocean acidification and atmospheric carbon dioxide concentrations (Malhi et al., 2020). Extreme climate change will disrupt the balance of ecosystems and forests on earth. In order to maintain ecosystems, efforts are needed to reduce global warming through sustainable development. Sustainability itself is the process of living within the limits of available physical, natural and social resources in ways that allow the living systems in which humans are embedded to thrive in perpetuity (Duncan, 2018). While sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their needs (Abdou et al., 2020). As a way to achieve this sustainability, sustainable development is based on the three main pillars of sustainability focusing on three scopes which are ecological, social, and economic. The ecological scope focuses on the efficient use of resources and energy as well as the environmental, the economic focus on employment, education, development, labor rights, and equality, and the society focuses on quality of health and safety, equality, and human rights, law and public (Low, 2016). Sustainable Development Goals (SDGs) are a global action plan agreed upon by world leaders to end poverty, reduce inequality and protect the environment. The goals and targets are arranged into 17 goal points and 169 targets (Ngoyo, 2015).

The United Nations Sustainable Development Goals aim to encourage all countries to mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change while ensuring that no one is left behind (EarthCheck, 2017). To support this effort, in 1992 specifically in the United Nations Rio De Janeiro Earth Summit the Earth Check Certified was built on the agenda of 21 principles for Sustainable Development endorsed by 182 heads of state (EarthCheck, 2018). Earth Check Certified is recognized by the Global Sustainable Tourism Council or GSTC and complies with the Mohonk Agreement which outlines the guidelines and principles for an international sustainable tourism certification program. One of the sectors often joining the certification is a hotel. A hotel is a business that is engaged in professionally managed accommodation for profit by providing lodging services, food, beverages, and facilities (Bagus, 2016). Hotel is a business profitable services provide accommodation, meals, and facilities other common (Riyanto & Hatmawan, 2020). Earth Check certification would drive the hotel towards a green hotel. A green hotel is a hotel that uses and has goods that are environmentally friendly where hotel managers have programs to save water, save energy, and decompose waste from hotel activities to help protect the earth (Green Hotel Association, 2018). One of the hotels currently working on getting the certificate is the Apurva Kempinski Bali.



Source: Benchmarking Data the Apurva Kempinski Bali (2022)

Figure 1. Guest Night and Occupied Room

Figure 1 shows that The Apurva Kempinski Bali with its 14-hectare hotel and resort is one of the companies that have a high level of operational activity, evidenced by the number of guests staying in a year an average of 146 thousand guests. A high operational level will have an impact not only on the social and economic but also on the environmental aspect. However, based on preliminary observations, it can be stated that

The Apurva Kempinski Bali has implemented sustainable development efforts, including on-site water management, wastewater management, solid waste generation management, and the release of turtles as conservation efforts and other sustainable development efforts. However, this needs to be studied more deeply to find out whether the implementation of sustainable development at The Apurva Kempinski Bali is good and could be a model for other hotels who want to implement green practices to support sustainable development in their company, especially in Province of Bali.

Method

This research was conducted at The Apurva Kempinski Bali which is the business product of PT. Graha Alam Lestari. This hotel is located on Lot 4, Jl. Raya Nusa Dua Selatan, Benoa, South of Kuta, Badung, Bali. It is using qualitative descriptive analysis by collecting data, observations with participant observation techniques, and interviews related to the formulation of the problems. Descriptive research is research that is intended to explore or clarify an existing symptom, phenomenon, or social reality. It seeks to describe several variables related to the problem and unit under study (Samsu, 2017). Qualitative descriptive analysis is used to describe how the implementation of the green hotel practices implemented by the Apurva Kempinski Bali which is analysed by the 10 indicators developed by Earth Check known as key performance areas. The key performance areas include greenhouse gas emission, energy efficiency conservation and management, management of freshwater resources, ecosystem conservation and management, social and cultural management, land use planning and management, air quality protection, wastewater management, solid waste management, and environmentally harmful substances (EarthCheck, 2018). The method of determining informant used is purposive sampling, which is a sampling technique with certain considerations (Sugiyono, 2015). The interview technique used in this research is an un-structured interview, which is an interview that contains a flexible format, usually based on guided questions but in which the format remains the interviewers' choice (Adhi Kusumastuti, 2019). The data analysis technique used in this research is the flow chart analysis technique proposed by Miles & Huberman which is stated that the flow of data consisted of three activities, they are reduction, data display, and drawing conclusion/verification. In principle, this data analysis activity is carried out throughout research activities or during data collection, and the most core activities include data reduction, data display, and verification or conclusion (Samsu, 2017).

Result and Discussion

1. Greenhouse Gas Emission

Greenhouse gas emission is often coming from energy, land use & forestry and waste (Rahmadania, 2022).

a. Energy

To compensate for the high purchase of fuel, the management used other vehicles that have different sources of energy, such as electricity. The Apurva Kempinski Bali has buggies and moggies that use electricity to support business operations.



Source: Property of the Apurva Kempinski Bali (2022)

Figure 2. Buggy Charging Station

b. Land Use Forestry

The Apurva Kempinski Bali with a total 14 hectares area has registered its business into *Izin Komersial/Operasional* with no of commercial license is 8120104820429 which was issued on 2 Au-

gust 2018. It means that Apurva Kempinski Bali has to meet the government requirement for running the business process, including land use and forestry.

c. Waste

In terms of waste management, The Apurva Kempinski Bali has collaborated with the Tunjung Mas Social Community Group 3R. The Apurva Kempinski Bali has developed the hydroponic team as the center of hotel sustainability development. They have developed the eco-enzyme program, coffee briquettes program, organic pesticide, urban farming, hydroponic, and compost program.

2. Energy Efficiency Conservation & Management

a. Electricity

The Apurva Kempinski Bali is using the services of PLN for hotel operations. It is the main power to supply the hotel operations with a capacity reach amount of 5.540 KVA. However, as a backup, the hotel also has its generator in case of a power outage by PLN. This generator set function is as a backup power with 3 set installation of Mitsubishi Generator Set type MG-7PF 2000 KVA/1600 KW. The saving energy campaign has been done and well-maintained. It is included on the computer users to switch off the desktop when not in use, to not plug into the adaptor when not in use, to always switch the lamp off when it can use the sunshine in the room/office, to always switch off the printer when not in use and to not use lift/elevator if not brings goods/stuff. From 15,785,680 kWh in 2019, in 2020 it decreased slightly due to the COVID-19 pandemic to 14,681,240 kWh and increased sharply in 2021 to 17,079,440 kWh. It shows that from 2019 to 2020, the consumption decreased by 7%, this is also supported by the saving energy campaign held by the hotel during the low season. While from 2020 to 2021 the consumption increased by 16.34 % due to the business getting better after hitting by a pandemic situation.



Source: Property of the Apurva Kempinski Bali (2022)

Figure 3. Saving Energy Campaign

b. Water

The Apurva Kempinski Bali has implemented the practices of water savings, for example, in the guest room, the hotel provides a statue in the form of Jalak Bali as a communication tool between guests and the hotel which means that when the statue is placed on the bed or sheets, it means the guest want to changes their sheets. If the statues are still on the table side of the bed, it means the guest does not want to change their sheets. This campaign has had a good impact on decreasing laundry water consumption. The laundry water consumption decreased year by year, from 2019 to 2020 decreased by 57.22%, and from 2020 to 2021 decreased by 33.01%.

3. Management of Freshwater Resources

The Apurva Kempinski Bali used three types of water to support the operations, they are freshwater, sewage treatment plant (STP) water, and seawater. To maintain the freshwater at the hotel, the Engineering on power plant division has a regular schedule to check the plumbing leaks to make sure there are no leaks occurred. The Apurva Kempinski Bali uses 95.5% of low/dual flush which is known as the neo rest toilet at the hotel. General total toilet available in the hotel is 648 with hand flush toilets in total is 29 units and neo rest toilet is 619 units. The shower is available in each restroom within the hotel area. Total shower installed at the hotel is 560-unit spread out from guest accommodation, staff

locker, public area restroom, gym & spa facilities. Sprinkles are available in several spots in the area with the total sprinkles being 148-unit sprinkles.

4. Ecosystem Conservation and Management

The Apurva Kempinski Bali is not located in the forest but can disturb the near ecosystem specifically on the east of the hotel at the ocean and on the north of the hotel an empty land. The marine ecosystem specifically in the swimming area in the sea is safe from marine life (fish, coral reefs, sea animals) since the hotel has installed a wave barrier that can indirectly protect the deep-sea biota from getting impacted by recreational activities carried out by the guests. Meanwhile, The Apurva Kempinski Bai is known as the Koral "underwater" Restaurant full of fish and sea animals. The biota inside the big aquarium is legally displayed to the guest with letters, one example is a travel document (letter for the transfer of marine animals). The Apurva Kempinski Bali also contributed to the ecosystem of a turtle through the program of turtle release. When on 21 November 2021, the hotel released as many as 40 turtles into the sea released by the guest and staff in charge. The turtle released is *Penyu Lekang (Olive Ridley Sea Turtles)*.

5. Land Use Planning and Management

As the scope of the statement said that the hotel is laid on 14 hectares area on the cliff and in front of the beach area. The Apurva Kempinski Bali is a hotel that was built without destroying the original condition of the previous land. This can be seen that the building follows the original cliff without any land leveling or land destruction during construction. The concept of the property is also inspired by local architecture. The Apurva Kempinski Bali cascades down the hillside like one of Bali's iconic rice paddies, emerging from the cliff tops and gradually making its way down to the Indian Ocean. The Apurva Kempinski Bali provided facilities and accessibilities to the person with disabilities. It is proven from the assigned room provided by the hotel special for a disabled person, that is rooms 1603 and 1703. The room is equipped with a special restroom with a panic button installed not only in the restroom but also beside the bed.

6. Air Quality, Noise and Light Controls

Air quality has been discussed before in section 1, this section will be focusing on noise emission and light emission. Noise emission according to Minister of State Decree Environment No. KEP 48/MENLH/11/1996 definition of noise is unwanted sound from a business or activity at a certain level and time that can cause disturbance to environmental health and comfort (Djalante, 2013). The noise comes from the Genset room and boiler room. This is supported by the evaluation of environmental effect has been compiled by the organization entitle *Dokumen Evaluasi Lingkungan Hidup (DELH)* which is stated that the increase of the noise emission is possibly caused by the operational of Genset and boiler, specifically when there is an outage from the PLN power supply. The test for noise emission in this particular area has been tested regularly every year. The level of noise at the hotel is not allowed to up to 70 dB match with the KepMenLH No.48 Tahun 1996.

7. Wastewater Management

Wastewater commonly comes from the guest accommodation, kitchen production, laundry room, staff facilities, and so on. In terms of wastewater, the hotel has registered the property to the government of Badung Regency through *Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu* for Wastewater Disposal Permit Approval no 2864/LIMBAHAIR/DPMPTSP/2021 which was issued on 24 June 2021. Besides, the wastewater at The Apurva Kempinski Bali is also well-managed using the STP (Sewage Treatment Plant) as mentioned before. STP supplies wastewater from two places, first from the kitchen and second from a toilet. STP production in 2019 is reaching an amount of 19.498 M³ and decreased due to the pandemic situation in 2020 reaching an amount of 6.454 M³. The wastewater production has a connection with the water consumption itself. The consumption of laundry water, for example, is decreased as well as wastewater production is also decreased as shown in point 2 (b) above.

8. Solid Waste Management

The whole kitchen outlet in the hotel is equipped with a color-coded garbage bin. The color-coded for garbage bin in the kitchen is divided into two colors, yellow and white. Yellow for dry waste and white for wet waste. In addition, the hotel established a hydroponic team in 2019. This team has the

responsibility to develop sustainable development within the hotel area. For example, modifying waste jerry-cans from laundry or RO room become pot. The hotel is also equipped with the license of hazardous and toxic waste issued by the government of Badung Regency through *Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu* about the operational license for hazardous and toxic waste (B3) no 1479/LIMBAH B3/DPMPPTSP/2021. Back of house also supported the green practices by always maximizing the printings by using the double-side of the paper, always set up the printer to the eco-printings, and distributed the minutes-meeting, BEO, work plan, assignment, announcement, etc., by email, WhatsApp, or telegram group.

9. Management of Social and Cultural Issues

a. Cultural Sensitivity

The hotel is facilitated by the Asha Boutique and Gallery. These hotel art shops become the center of trading local artisanal goods within the hotel area. The vendors which supply the artisanal goods in the boutique are local with 65% of the suppliers coming from Bali and others coming from another part of Indonesia. In addition, as the marketing strategy this year, the hotel is campaigning about unity in diversity program. The hotel will highlight the uniqueness of each region differently every month. From Sumatera, Java, Nusa Tenggara, Sulawesi, Maluku & Papua, whole regions will be highlighted fully this year, including for recreational activity.

b. Cultural Engagement

The Apurva Kempinski Bali in its operation is strongly involved in the local belief, culture, and traditions. It is proven by the program offered by the marketing department such as Sunrise Purification at Geger Temple. This ritual is led by a Balinese priest with the offering and mantra to dismiss bad omens, prevent illness, and bad luck, and cleanse the guest's mind and body.

c. Local Employment

The staff's religion is dominated by Hindus with the percentage of Hinduism staff being 77%. Indirectly it explained that the staff at the Apurva Kempinski Bali majority comes from local people (Balinese). Based on the data processed, it is known that the percentage of female managers at The Apurva Kempinski Bali is 37% and the male manager is 63%.

d. Local Goods & Services

The hotel has been facilitated by the Asha Boutique & Gallery to sell local artisanal goods. Besides, several services are needed by the hotel for example the waste vendor and pest control are based in Bali. In addition, the food and beverages suppliers are mostly based in Bali and often come from Plaga, Kintamani, Bedugul, etc.

10. Environmentally Harmful Substances

The whole chemical used at The Apurva Kempinski Bali is equipped with the MSDS (Material Safety Data Sheet). This information is consisting of the specification of the chemical, the storing method, first aid of the chemical, and so on. In addition, almost all the chemical at the hotel is supplied by Diversy Indonesia which is also completed by its sustainability letter. Each chemical room has equipped with personal protective equipment (PPE) for the staff who is in charge to handle any chemicals.

Conclusion

The implementation of green hotel practices based on earth check certification by the Apurva Kempinski Bali is well-managed and ready to join the certification with several improvements such as the evaluation of renewable energy, smart controls for showers, and taps, and so on. The implementation has given significant impacts both on the internal hotel and external hotel. This research lacks an interview with the guest perception. Thus, this study further suggests more direct interviews with guests to find out the guest perception related to the green hotel practices themselves.

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