

CIRCULAR ECONOMY BUSINESS CASE STUDIES IN SOUTHEAST ASIA



Knai Bang Chatt

-  Kep, Cambodia
-  Hospitality
-  www.knaibangchatt.com
-  Analysis period: 2003-2024

Circular Economy in Luxury Hospitality

Business Spotlight

Knai Bang Chatt, a luxury resort in Kep, Cambodia, has been pioneering circular economy implementation, emphasising sustainability in the hospitality sector. Since its inception in 2003, the resort has been committed to environmental conservation, community engagement, and sustainable practices, achieving the prestigious Green Growth 2050 platinum standard from 2020, a Global Sustainable Tourism Council recognised certification.

By focusing on waste reduction, recycling, upcycling, and organic gardening, Knai Bang Chatt is achieving remarkable impacts on natural resource use efficiency and contributing positively to the local economy and community wellbeing. These efforts have also resulted in operational cost savings and increased revenue, attracting eco-conscious travellers, and boosting the resort's market position. Future plans include expanding sustainable practices, offering sustainability workshops, developing new development projects, and transitioning into a wellbeing destination. Despite challenges such as lack of consistency and resistance to change, KBC's journey exemplifies the feasibility and benefits of integrating sustainability into luxury hospitality, serving as an inspirational model for other businesses in the hospitality industry and beyond.

 **Keywords**

Sustainability, Luxury Resort, GG2050 Platinum certification, Community engagement

 **Innovation**

Product service/design, Use and maintenance, End-of-life management, Resource circularity, Resource efficiency, Resource substitution



Analysis of Knai Bang Chatt

Context and baseline

Tourism is a vital component of Cambodia's economy. Despite a slow recovery of the sector after the COVID-19 pandemic, in 2023, the tourism sector generated USD 3.04 billion in revenue, reflecting a 115% increase from the USD 1.41 billion reported in the previous year. However, the growth of tourism has brought about substantial environmental challenges, particularly in the field of waste management. Waste generation has surged at a rate of about 10% each year, especially in popular tourist destinations such as Siem Reap (home to the Angkor Wat temples) and coastal areas like Sihanoukville. The issue of plastic waste is particularly acute. Tourists often utilise single-use plastics such as water bottles, food containers, and plastic bags, which contribute significantly to the overall waste burden. Addressing these challenges requires a coordinated effort from the government, private sector, and local communities to ensure that tourism growth is sustainable and does not come at the expense of the environment.

Knai Bang Chatt (KBC), a luxury boutique resort located on Cambodia's southern coastline in Kep, addresses the challenge of sustainable tourism by transforming a luxurious experience into an eco-friendly and community-supportive initiative. The idea for circular solutions originated from a desire to create a positive impact on the environment and the local community, involving collaboration and partnerships and developing synergies with various stakeholders to promote sustainable practices across sectors.

The KBC group is a leader in hospitality sustainability, having integrated all the principles of the circular economy into its operations. The 18-room resort practices these principles with the guests. They engage in recycling, upcycling, organic gardening, and using renewable energy. They are also 100% single-use plastic free. This commitment has been praised and recognised internationally, as Knai Bang Chatt was awarded the prestigious Green Growth 2050 Platinum Certification in 2020 and has had it renewed every year since then.

Innovation

The main innovation of Knai Bang Chatt lies in its enhanced, holistic and comprehensive approach to circularity in their operations, and successful and sustained implementation. The circular economy model adopted by KBC focuses on minimising waste, maximising resource efficiency, and promoting

sustainability. Taken individually, implementation of each of these initiatives is simple and straightforward, but together they require a sustained management focus as well as dedication from all departments and the staff to be sustained in a comprehensive and integrated manner over prolonged periods, which KBC has succeeded in doing.

Some notable circular initiatives include all-inclusive recycling and composting programmes, the use of natural dyes in paints, and the establishment of organic gardens. The goal is not only to reduce waste and environmental impact, but also to enhance guest stays by making sustainability an integral part of their luxury hospitality experience.

One important achievement to note is the development by KBC of the *Handbook for Implementing Circular Economy Practices in Hotels and Restaurants*.¹ This practical and hands-on resource aims to educate and guide other businesses in adopting sustainable models. Most importantly, all the key actions and recommendations come with clear instructions, recognising the fact that raising awareness is not enough. As key information on how to implement such sustainable activities was difficult to find, KBC provided specific recommendations taking into account the Cambodian context, ensuring that all the activities are 'found feasible and effective'.

The *Handbook* covers various circular topics such as how to build a green team, how to build green procurement strategies, the different options for energy efficiency and renewable energy, how to create a single-use plastic-free environment, how to create less waste in restaurants, how to transition toward a zero-waste business, how to train the staff to these new processes, and how to monitor activities and results.



¹ <https://www.undp.org/cambodia/publications/handbook-implementing-circular-economy-practices-hotels-and-restaurants>

Circular Economy impact

Knai Bang Chatt (KBC) demonstrates a strong commitment to sustainability through various circular economy initiatives that minimise environmental impact, conserve resources, and promote sustainable practices. These efforts are significantly reducing material, energy, and water usage while also enhancing biodiversity and land use.

Knai Bang Chatt excels in resource circularity through its comprehensive waste-management practices. The resort ensures that 100% of their organic waste is composted, enriching the soil in the organic gardens while eliminating the need for chemical fertilisers. In parallel, recycling and upcycling efforts ensure that materials such as glass, plastic, and metal are effectively processed and reused. For the 10-month period from June 2023 to March 2024, KBC recycled 10 metric tonnes of waste (60% of the total), composted 2.7 metric tonnes (16%) and sent 4 metric tonnes (24%) to landfill. As a result, approximately 75% of KBC's waste was diverted from landfills. Depending on the rainy season, KBC also cleans the seagrass on the beach, which is partly composted as well.

The impact in resource efficiency is also significant. Energy consumption has been reduced with the transition to 100% LED lighting, timed light switches and preset air conditioning at 24 degrees. Water efficiency is another priority, and single-use plastic bottles have been eliminated in favour of sterilised reusable glass bottles and filtered water systems. The resort estimates that, with only 18 rooms, they prevent around 15,768 plastic water bottles being thrown away every year. Efficient laundering practices for towels and sheets further contribute to water and energy savings.

Resource substitution at KBC has been achieved with the installation of solar panels, which in 2023 supplied 20% of total electricity use, and thereby prevented around 39 metric tonnes of CO₂ emissions. Another example of circularity is sustainable procurement. The resort sources 75% of its products sustainably, prioritising eco-friendly materials and suppliers, including the use of sustainable designs for the hotel rooms, which reflect local culture while minimising environmental impact. Additionally, KBC uses 100% eco-safe chemicals for room and hotel cleaning and food safety, reducing their chemical footprint and ensuring the safety of both guests and the environment.

Along with these strategies, KBC's initiatives have a positive effect on land use and nature. The resort's organic garden provides up to 25% of its

fresh products, and is supported by composting organic waste, which reduces reliance on chemical fertilisers. By prioritising sustainable procurement and eco-friendly product choices, the resort helps to preserve natural resources and minimise the environmental impact of its operations.

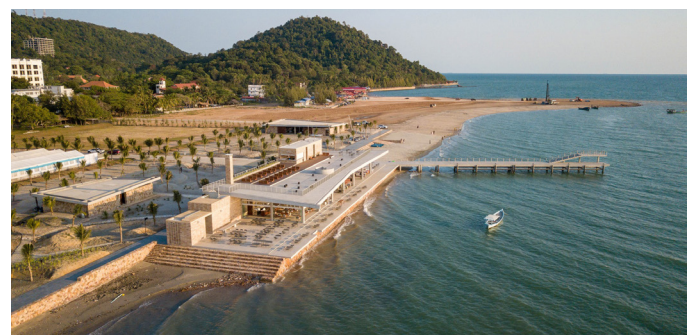
Business and market impact

Knai Bang Chatt has grown from a nine-room private house in 2003 to an 18-room resort that includes a sailing club. They outperform the market with their small size, mainly because they are selling an experience and cultural connections instead of just luxury rooms.

KBC has achieved operational cost savings and increased sales due to their sustainable model, enhancing their reputation among eco-conscious travellers. The resort's sustainable initiatives have also allowed it to scale up its operations and project future growth in the luxury sustainable tourism market. The resort is a frank success: the owner's initial capital investment has roughly doubled every three years since 2003.

The pandemic period brought many challenges, including another development built in front of the resort and which deprived it of its proximity to the sea. However, KBC transformed the challenge into another successful project by obtaining the authorisation to construct a beautiful new beachfront development called Kep West, which started operations in 2023. The place is designed to be a culinary beach destination with a variety of restaurants and cafés, combined with a discovery centre proposing various activities for visitors and staying guests and hosting the new Royal Yacht Club Association.

This diversification introduced by Kep West was part of a transformation journey that is aiming to rebrand KBC as a wellbeing and wellness destination for the future. Despite the slow recovery of international tourism after the COVID-19 pandemic, KBC has been able to attract high-end local customers in addition to those in the usual luxury sustainable tourism niche market. It can be noted that Kep West has received the Green Growth 2050 Platinum Certification as well.



KBC is committed to developing activities that will connect customers with the local culture and consolidate Kep as a high-end cultural beach destination: the Art for Kep festival hopes to showcase artworks such as giant sculptures and attract international artists. Music and movie festivals are also planned in the future. KBC also plans to leverage possible synergies and collaborations with other coastal tourism destinations such as Kampot with their pepper farms or Sihanoukville with its Bay of Light project.

In the future, KBC is seeking long term investors or partnerships with professional operators to develop sizeable projects in Kep, such as further expanding the room capacity of KBC.

Stakeholders

The resort's development and commercial success have been supported by various stakeholders, including the local community, NGOs, and international organisations like United Nations Development Programme (UNDP) and Green Growth 2050.

UNDP was an important partner for the KBC's *Handbook for Implementing Circular Economy Practices in Hotels and Restaurants*. They commissioned and financed this publication, which outlines how to operationalise and implement green strategies in the hospitality sector efficiently and effectively.

Green Growth 2050 was developed by VisionCSR, based in Australia, in collaboration with Greenearth. travel in the EU. This initiative is designed to promote and recognise environmentally and socially responsible practices within the tourism and hospitality industry. The Green Growth 2050 Global Standard includes over 480 indicators for Corporate Social Responsibility (CSR) and sustainability, such as environmental management, resource efficiency, biodiversity conservation, social responsibility, and community engagement. To achieve the Platinum Certification, a business must score 90% or more across rigorous assessment criteria. The evaluation is conducted annually by independent third-party auditors who assess business compliance with these indicators. Achieving the prestigious GG2050 Platinum Certification signifies that Knai Bang Chatt and Kep West not only meet, but exceed rigorous standards.

A Memorandum of Understanding has been signed with Marine Conservation Cambodia to work on the marine protection of 15,000 ha of sea in the Kep coastal zone. This partnership includes various projects such as establishing a dolphin corridor, collaborating on 3D sculptures, and creating an underwater museum by 2025.

Finally, it is important to highlight the work being done by Knai Bang Chatt with respect to community engagement, through programmes like providing university scholarships to underprivileged students, thus demonstrating the positive impact of a sustainable project on employment and community livelihoods.

Implementation

Knai Bang Chatt (KBC) manifests a strong commitment to sustainability, as evidenced by attaining and maintaining the Green Growth 2050 (GG2050) Platinum Certification. Nevertheless, achieving and upholding such high standards does present challenges.

Implementing and maintaining the necessary infrastructure for waste management and other sustainability initiatives is both complex and costly. Continuous investment is crucial to ensure the longevity and effectiveness of these sustainable practices. Educating guests and encouraging their active participation in the resort's circular initiatives requires ongoing efforts to engage with and inform them about the significance of sustainability and how they can contribute during their stay. Establishing a reliable supply chain for sourcing sustainable materials involves thorough planning and building strong partnerships with suppliers. Finally, maintaining high sustainability standards necessitates dedicated resources and unwavering commitment from all levels of the organisation.

KBC has successfully addressed these challenges not only through innovative strategies and strong partnerships, but also through a structured, proactive approach to educating both staff and guests. Consistency has been a major challenge; but failure has also provided a major learning opportunity, and the establishment of a green team dedicated to overseeing sustainable practices and closely monitoring staff training programmes was a critical step forward.

The true catalyst for change, however, was the certification programme and its associated audit, which served as the backbone for transformation by providing a structured framework for implementing sustainable practices. And while the process must be systematic, creativity is also essential for effective problem solving. The rigorous audit process not only ensures compliance but also offers internal and international recognition, reinforcing the commitment to sustainability and driving continuous improvement. It should be noted though that an audit needs to be truly independent and performed according to leading international standards.

Takeaways

Knai Bang Chatt's journey highlights the feasibility and benefits of integrating sustainable practices into the luxury hospitality sector. The resort serves as an inspiring example for other hospitality-sector businesses to adopt circular economy models, proving that luxury and sustainability can coexist harmoniously.

However, despite Knai Bang Chatt's substantial efforts to raise awareness about sustainable practices and the circular economy, the broader impact on the hospitality sector in Cambodia remains limited. Transitioning to a circular economy requires significant changes in business operations, supply-chain management, and organisational culture. These barriers can be daunting for establishments that are already operating on thin margins or dealing with other economic pressures that were exacerbated by the Covid-19 pandemic. Many actors in the sector are not yet prepared for this journey.

Internally, resistance to change is also common. Success in implementing sustainable practices hinges on changing the mindset of every individual within the organisation, which can help to effectively activate and structure the change process.

Choosing the right certification programme is crucial on the sustainability journey. In the future, KBC aims to offer sustainability workshops to help other companies progress. Coaching, setting an example, and providing growth opportunities all highlight the importance of human-centric decisions. By empowering staff and ensuring fairness, KBC enables knowledge transfer and promotes a culture of sustainability.

Finally, the broader hospitality sector is lacking the regulatory incentives or market pressures that drive large-scale adoption of circular economy principles. Without strong policy support or consumer demand for sustainable practices, many businesses may not see the immediate benefits of investing in such transformations. Despite these challenges, Knai Bang Chatt continues to serve as an exemplary model of sustainability in the hospitality industry, and for Jef Moons, KBC's proprietor, purpose remains of paramount importance in setting up sustainable projects.



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