



## **Strategy for Implementing Sustainable Tourism Principles in a Hotel Business**

### **Authors:**

Biryukova Polina

Nassambayeva Aisulu

Shalgimbayeva Laura

Submitted in partial fulfillment of the requirements for the degree of

Bachelor of Service Management

In

Tourism

M. S. Narikbayev KAZGUU University

School of Liberal Arts

May, 2021

Word Count: 6117

© Copyright by [Biryukova Polina, Nassambayeva Aisulu,

Shalgimbayeva Laura]

## DECLARATION

We, the undersigned **Biryukova Polina, Nassambayeva Aisulu, Shalgimbayeva Laura** grant to M. Narikbayev KAZGUU University the right to store and distribute my submission in print and electronic format.

We confirm that We are the sole authors of this senior project, and that it does not infringe any copyright. This senior project is the result of our own original work, except where due acknowledgement has been made.

M. Narikbayev KAZGUU University will clearly identify our name as the author of the submission, and will make any alteration, other than as allowed by this agreement, to your submission.

We hereby accept the terms of the above Declaration.

**Biryukova, Polina**

---

**signature:**

**Nassamabayeva, Aisulu**

---

**signature:**

**Shalgimbayeva, Laura**

---

**signature:**

**Date:** 7.05.2021

## PROJECT SUMMARY (ENG)

**Brief description of the project:** this project includes an assessment of the growth and demand of ecological tourism in the world, and in Kazakhstan, a study of the green policy of the Wyndham Garden and Resorts hotel chain, an analysis of the Wyndham Garden Astana hotel, a developed strategy for the implementation of modern green technologies based on the Wyndham Garden Astana hotel and its discussion for the next 4 years

**Project aim:** in the result of analyzing the Wyndham Garden Astana hotel, create and start implementing a personalized green technologies strategy based on the hotel

**Relevance of the project:** this project is highly relevant, due to the fact that the ecological situation of the country, and particularly of Nur-Sultan city, is in a weak condition, and with the prospects and scales of tourism development in Kazakhstan, the implementation of green technologies at hotel bases is extremely necessary and important

**The novelty of the project:** the project contains our own analysis of the Wyndham Garden Astana hotel, measurements and calculations of the hotel's energy consumption parameters, and a financial business plan for a personalized strategy

**Project efficiency:** project efficiency is assessed as high with long-term implementation and development. Since, in the result, of the basic green principles and sustainable technologies establishment, many of the hotel's expenditure indicators will be reducing significantly

**Main areas of activity:** sustainable tourism, eco-hotel, green technologies, alternative energy sources

**Field:** sustainable tourism

**Project components:**

- 1) Theoretical part (analysis and assessment of eco-tourism in the world, in Kazakhstan; analysis of the international eco-program Wyndham Garden & Resorts)
- 2) Analysis of Wyndham Garden Astana (analysis of the hotel, assessment of the hotel's system and location features)
- 3) Creation (development of a personalized strategy based on the analysis)
- 4) Implementation (start of hotel-based strategy implementation)
- 5) Forecast and conclusions (financial calculations, development forecast for 4 years and project conclusions)

**Action plan:**

- 1) Information search (collection of information on the research topic)
- 2) Systematization of information (processing of the received information)
- 3) Analysis of the Wyndham Garden Astana hotel (hotel study, SWOT analysis, personal selection of green innovations based on the climate, budget and other features of the hotel)
- 4) Conducting a survey (survey among 30 hotels in Nur-Sultan; survey among potential customers)
- 5) Strategy creation (development of a personalized green technologies strategy for Wyndham Garden Astana)
- 6) Financial calculation (financial calculation of the strategy)
- 7) Forecasting (forecasting strategy and finances for the next 4 years)
- 8) Implementation (start of strategy implementation)
- 9) Writing and formalization of project work

**Proposed sources and financing schemes:** hotel budget, state loans for the development of private eco-business

**Implementation period:** April 2021 - December 2024

## **Жобаның қысқаша мазмұны (KZ)**

**Жобаның қысқаша сипаттамасы:** бұл жоба әлемдегі және Қазақстандағы экологиялық туризмнің өсуі мен сұранысын бағалауды, Wyndham Garden and Resorts қонақ үй желісінің жасыл саясатын зерттеуді, Wyndham Garden Astana қонақ үйінің талдауын, Wyndham Garden Astana қонақ үйіне негізделген заманауи жасыл технологияларды енгізудің стратегиясы және оны алдағы 4 жылға талқылау

**Жобаның мақсаты:** Wyndham Garden Astana қонақ үйіне талдау жасап, қонақ үйге негізделген жеке жасыл технология стратегиясын әзірлеп, іске асыруды бастаңыз

**Жобаның өзектілігі:** бұл жоба өте маңызды, бұл елдің экологиялық жағдайы, атап айтқанда, Нұр-Сұлтан қаласы өте қауіпті жағдайға байланысты және туризмнің даму перспективалары мен ауқымына байланысты Қазақстанда қонақ үй базаларында жасыл технологияларды енгізу өте қажет және маңызды

**Жобаның жаңашылдығы:** жобада Wyndham Garden Astana қонақ үйінің өзіндік талдауы, қонақүйдің энергияны тұтыну параметрлерін өлшеу және есептеу, жеке стратегияның қаржылық бизнес-жоспары бар

**Жобаның тиімділігі:** ұзақ мерзімді іске асырумен және дамытумен жобаның тиімділігі жоғары деп бағаланады. Негізгі жасыл принциптер ғана емес, сонымен қатар экологиялық таза технологиялар да орнатылғандықтан, қонақ үйді тұтынудың көптеген көрсеткіштері айтарлықтай төмендейді.

**Қызметтің негізгі бағыттары:** тұрақты туризм, экологиялық қонақ үй, жасыл технологиялар, баламалы энергия көздері.

**Өрісі:** тұрақты туризм

**Жоба компоненттері:**

- 1) теориялық бөлім (әлемдегі, Қазақстандағы экологиялық туризмді талдау және бағалау; Wyndham Garden & Resorts халықаралық экологиялық бағдарламасын талдау)
- 2) Wyndham Garden Astana талдау (қонақ үйге талдау, қонақ үй жүйесінің ерекшеліктерін және орналасуын зерттеу)
- 3) құру (талдау негізінде жеке стратегия құру)
- 4) Іске асыру (қонақ үйге негізделген стратегияны іске асырудың басталуы)
- 5) болжам және қорытынды (қаржылық есеп, 4 жылға арналған даму болжамы және жобалық қорытынды)

#### **Әрекет ету жоспары:**

- 1) Ақпараттық іздеу (зерттеу тақырыбы бойынша ақпарат жинау)
- 2) ақпаратты жүйелеу (алынған ақпаратты өңдеу)
- 3) Wyndham Garden Astana қонақ үйінің анализі (қонақ үйді зерттеу, SWOT талдау, климатқа, бюджетке және басқа ерекшеліктеріне негізделген жасыл инновацияларды жеке таңдау)
- 4) сауалнама жүргізу (Нұр-Сұлтандағы 30 қонақүй арасында сауалнама; әлеуетті клиенттер арасында сауалнама)
- 5) Стратегия құру (Wyndham Garden Astana үшін жеке жасыл технология стратегиясын әзірлеу)
- 6) қаржылық есеп (стратегияның қаржылық есебі)
- 7) Болжау (алдағы 4 жылға арналған стратегия мен қаржыны болжау)
- 8) Іске асыру (стратегияны іске асырудың басталуы)

9) Жобалық жұмысты жазу және орындау

**Ұсынылатын көздер мен қаржыландыру схемалары:** қонақ үй бюджеті, жеке экологиялық бизнесті дамыту бойынша мемлекеттік несиелер

**Іске асыру мерзімі:** Сәуір 2021 - Желтоқсан 2024



## РЕЗЮМЕ ПРОЕКТА (RU)

**Краткое описание проекта:** данный проект, включает в себе оценку роста и спроса экологического туризма в мире и в Казахстане, изучение зелёной политики сети отелей Wyndham Garden and Resorts, анализ отеля Wyndham Garden Astana, разработанную стратегию внедрения современных зелёных технологий на базе отеля Wyndham Garden Astana и ее обсуждение на ближайшие 4 года

**Цель проекта:** проанализировав отель Wyndham Garden Astana, разработать и начать внедрение персональной стратегии зелёных технологий на базе отеля

**Актуальность проекта:** данный проект имеет высокую актуальность, в связи с тем, что экологическое состояние страны, и в частности города Нур-Султан, находятся в достаточно опасном положении, а с перспективами и масштабами развития туризма Казахстана, внедрение зеленых технологий на базы отелей является крайне необходимым и важным

**Новизна проекта:** проект содержит в себе наш собственный анализ отеля Wyndham Garden Astana, замеры и расчёты параметров потребления энергии отеля, финансовый бизнес план персональной стратегии

**Эффективность проекта:** эффективность проекта оценивается высокой при долгосрочном внедрении и развитии. Поскольку по мере установления не только базовых зелёных принципов, а именно экологических технологий многие расходные показатели отеля снижаются в разы

**Основные направления деятельности:** устойчивый туризм, эко-отель, зелёные технологии, альтернативные источники энергии

**Сфера:** устойчивый туризм

**Компоненты проекта:**

- 1) Теоретическая часть (анализ и оценка эко-туризма в мире, в Казахстане; анализ международной эко- программы Wyndham Garden & Resorts)
- 2) Анализ Wyndham Garden Astana (анализ отеля, изучение особенностей системы отеля и месторасположения)
- 3) Создание (разработка персональной стратегии, основываясь на проведенный анализ)
- 4) Внедрение (начало внедрения стратегии на базе отеля)
- 5) Прогноз и выводы (финансовый расчет, прогноз развития на 4 года и выводы проекта)

**План действий:**

- 1) Поиск информации (сбор информации по исследуемой теме)
- 2) Систематизация информации (обработка полученной информации)
- 3) Анализ отеля Wyndham Garden Astana (изучение отеля, SWOT анализ, персональный подбор зелёных инноваций основываясь на климат, бюджет и другие особенности отеля)
- 4) Проведение опроса (опрос среди 30 отелей г.Нур-Султан; опрос среди потенциальных клиентов)
- 5) Создание стратегии (разработка персональной стратегии зелёных технологий для Wyndham Garden Astana)
- 6) Финансовый расчет (финансовый расчет стратегии)
- 7) Прогнозирование (прогнозирование стратегии и финансов на ближайшие 4 года)

8) Внедрение (начало внедрения стратегии)

9) Написание и оформление проектной работы

**Предлагаемые источники и схемы финансирования:** бюджет отеля,  
государственные ссуды на развитие частного эко-бизнеса

**Срок реализации:** апрель 2021 - декабрь 2024

## TABLE OF CONTENTS

Declaration

Project summary

1. Introduction
  - 1.1 Green tourism movement in a modern world
  - 1.2 Sustainable tourism development in Kazakhstan
2. Marketing and sales of “Green Wyndham Garden Astana” project
  - 2.1 Wyndham Garden Astana SWOT analysis
  - 2.2 Prospective demand and target population assessment
  - 2.3 Risks evaluation and analysis
3. Management and implementation of “Green Wyndham Garden Astana” project
  - 3.1 Project description and components
  - 3.2 Timeline and stages of implementation
  - 3.3 Financial screen of “Green Wyndham Garden Astana” project
4. General conclusions
5. References
6. Appendixes
  - 6.1 Survey among Astana hotels
  - 6.2 Survey among potential clients
  - 6.3 Photo portfolio

## INTRODUCTION

### 1.1 Green tourism movement in a modern world

The term sustainable development appeared in the early 70s. 20th century in the materials of the UN Conference on Environment and Development and assumes that development takes place without harming resources, which makes development in essence possible.[1] The position of many authors focuses on the integrated management of resources, for satisfying economic, social, cultural needs, preserving cultural integrity, environmental processes. The product of sustainable tourism creates a harmony of interests of society, culture and the local environment.

Sustainable development of tourism is associated with the creation of conditions that make it possible to improve the qualitative and quantitative parameters of the tourism sector. These conditions should be based on the competitive advantages of tourism in the region.[2],[3]

Caring for the safety of people and environmental protection today is an integral part of the regional policy in the field of tourism. Every year there are more and more tourists choosing a vacation that is safer for the natural environment. At the same time, experts in the tourism and hotel industry note that travelers have become more responsible in this matter. According to a study by the tourism association ABTA (Great Britain), every third holidaymaker believes that hotels in addition to stars should also have an environmental rating. Compared to 2010, the rate of responsibility of travelers choosing eco-friendly travel in 2018 increased from 29% to 33%. Moreover, among female audience of the surveyed, 38% are ready to comply with environmental standards while traveling, as well as 49% of tourists who go on vacation several times a year.[4]

In international tourism, the promotion of green technologies is carried out by the international organization Travelife Sustainability System, which encourages tour operators

and hotels involved in environmental activities and promoting environmental protection among their guests. The Travelife Sustainability System has a specially developed environmental audit system, which offers awards based on the achievements of enterprises. This initiative is supported by many of the largest tourism and recreation enterprises. To date, the Travelife system has registered 17,000 hotels, of which 1,500 companies have passed a full environmental assessment, and more than 500 have received well-deserved environmental awards. Due to increased spending on environmental protection in resort areas, foreign tourism has provided Turkey with about 78% of total profits since 2011, and domestic tourism accounts for 22%. [5]

Moreover, an important indicator for regional studies of sustainable tourism development is the Legatum Institute's Prosperity Index (The Legatum Prosperity Index) - a combined indicator that measures the achievements of countries in the world in terms of their well-being and prosperity, published since 2006 by the British think tank The Legatum Institute.

The index is compiled on the basis of various 79 indicators, grouped into eight categories: 1) economics; 2) entrepreneurship; 3) management; 4) education; 5) healthcare; 6) safety; 7) personal freedoms; 8) social capital. Each country is ranked by calculating a weighted average of the indicators listed, each of which is defined as the basis of prosperity.

The indicators are based on statistical analysis, sociological research and expert assessments of survey participants. The statistics used in the ranking are sourced from the United Nations, World Bank, Organization for Economic Cooperation and Development, World Trade Organization, Gallup, Economist Intelligence Unit, IDC, Pyramid Research and other institutes. [6]

According to the conclusions of the UNWTO and UNEP experts, set out in the report "Tourism and the green economy", the scenario for the development of territories under the

"green investment" program will allow by 2050 to reduce energy consumption in the tourism sector by 44% and CO2 emissions by 52%. This effect can be achieved using a combination of measures, including: technological innovation, the transition to ecological transport and efficient energy and environmental management in the hotel sector.[7]

One of the most well-known international certification programs for ecotourism is the Green Globe 21 program. It was founded by a British company operating in more than 50 countries and is a full partner of a number of industry and government organizations, including the Asia-Pacific Travel Association, the World Travel and Tourism Council, the World Tourism Organization, UNEP, as well as several universities and other organizations. The program has an international status and at the present stage covers, in addition to a number of components of the infrastructure of mass tourism (hotels, exhibition halls, airports, airlines, harbors, cruise ships, railways, restaurants, etc.), all kinds of tourist destinations, including local communities and protected areas. The Green Globe 21 system standards cover 6 areas:

- reduction of the volume of waste, reuse and recycling;
- energy efficiency;
- management of fresh water use;
- waste water management;
- environmentally sensitive trade policy;
- social and cultural development.[8]

Thus, today sustainable tourism is rapidly developing all over the world, and also attracts more and more tourists every year. There are various certifications, programs and standards that in fact confirm the compliance of eco-principles with certain organizations. Having such certification is not only healthy, but also prestigious. Moreover, it has a positive effect on the flow of tourists and the reputation of the property.

## **1.2 Sustainable tourism development in Kazakhstan**

The tourism sector in Kazakhstan has enormous potential. The country has different landscapes: mountains, steppes, lakes, sea, deserts, canyons. As well as a deep history, which plays an important role, and the annual improvement of conditions for tourism.

The Ministry of Culture and Sports believes that by 2024 the number of foreign travelers will grow from 1.1 million in 2021 to 2.4 million in 2024. The interest of Kazakhstanis themselves in domestic tourism will increase by 2 million to 7.3 million.

In order to achieve these goals, the volume of investments in the next four years will exceed 2.8 trillion tenge. This amount of funding was announced in the strategic plan of the department. Including 510 billion tenge is expected in 2021 and 933 billion tenge in 2024.

Through investments, state plans to expand the service sector, modernize environmental, medical, health resort, service and technological, space, creative and other types of tourism. [9]

Based on the fact of the country's resources, the intentions of the state and the allocated budget for the tourism sector, one can declare its rapid growth and development in the coming years.

Moving on to the concept of "sustainable tourism", it should be noted that in Kazakhstan, the term "sustainable tourism" is almost unknown to the majority. We can judge this by our survey among potential hotel customers. 48% of the people surveyed have heard about green technologies in the hotel business, but do not have a clear idea about it. While, 20% of respondents have not heard and are not familiar with this term at all.

However, especially in the last 5 the term sustainable tourism being used more and more at the state level and the government tries to create conditions for private businesses in order to develop eco-tourism.



For example, in April 2021, the government transferred sections of the Charyn State National Natural Park to investors for the development of ecological tourism.[10] In March 2021, according to Euromonitor International company's sustainable tourism rating Kazakhstan takes 62<sup>nd</sup> place out of 99, and advancing even Russia.[11] Furthermore, in May 2021, in the East Kazakhstan region "Funds for sustainable development of rural areas" and JSC "Aitas KZ" organized free courses in the field of tourism, the main direction of which was ecological tourism.[12] All these and other examples help us understand the picture of the attitude towards ecological tourism in Kazakhstan.

In fact, the country and the state often raise the issue of sustainable development of the country, every year it allocates more and more funds for the development of tourism, state authorities and private entrepreneurs increasingly use the prefix "eco" in their tours and projects.

One of the successful examples of eco-tourism is the Tenir eco-hotel project. This hotel is located in the city of Almaty, in the Shymbulak mountains at a level of 3200 meters. The hotel consists of 10 eco-houses, which are equipped with all the necessary amenities for guests. Logistic point: you can only get to the hotel by cable car. The hotel does not use plastic bottles and packaging, waste is being always properly sorted and disposed of in accordance with eco-standards.[13]

International organizations also take part in the development of eco-tourism in Kazakhstan. For example, in 2018, UNESCO launched the Promotion of Sustainable Development in Kazakhstan through UNESCO sites. The project will be implemented with the support of the Ministry of Foreign Affairs of the Republic of Kazakhstan in five regions of Kazakhstan: Almaty, East Kazakhstan, Zhambyl, Kyzylorda and Turkestan regions. This project aims to develop heritage-based tourism (cultural and eco-tourism) at UNESCO sites and the surrounding area. The project will focus on sites included in the UNESCO World

Heritage List and the Man and the Biosphere Program, as well as sites that have the potential to be included in the UNESCO Global Geoparks Network.[14]

It is also necessary to note the ecological component of the country and the city. Today, Kazakhstan ranks the 3rd place in the world in terms of air pollution.[15]

To date, Kazakhstan has not fulfilled yet any of its environmental obligations. Out of the 20 target tasks in the field of biodiversity for the period 2011-2020, none have been fully implemented, reports IA "NewTimes.kz".[16]

One example where the state did not take into account the importance of creating at least elementary conditions for eco-tourism is Lake Kobeituz. This is a unique destination, which is located in the Ereymentau district, Akmola region. The lake, the water of which has a light pink colour, and the bottom is entirely composed of salt and clay. In one month (June 2020), an invasion of unscrupulous tourists killed the lake. Salt and clay began to be removed from the lake, tourists left huge amounts of garbage and other harmful activities were recorded. At the moment, the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan are concerned about the pollution of the pink lake Kobeituz. Ecologists estimate that it will take several decades of years in order to restore this lake.

By this example, it can be shown that the state does not protect such unique natural places of the country. The Ministry of Ecology needs to start establishing at least basic green principles on such landmarks of the country.[17]

Moreover, famous ecologist Magzum Mirzagaliyev says that there is no significant improvement with the emergence of the Ministry of Ecology, Geology and Natural Resources. The ministry was founded in 2019; as of February 2021, the country's main ecologists are not satisfied with its activities.

Also, the Foundation of the famous Kazakhstani political scientist Dosim Satpayev released the book "Tomorrow was too late. Environmental risks of Kazakhstan". One of the

goals of the book is to radically change the hierarchy of threats within the framework of the classical model of ensuring the national security of Kazakhstan. This study is needed to show a direct as well as an indirect link between environmental threats and the risks of political and economic destabilization. If we ignore this connection, then in 20 years we may have to conflict with our neighbours over water, while simultaneously solving the problem of resettlement of thousands of environmental refugees who will flee from new zones of various natural disasters. All this indicates that it is high time to change the entire mechanism for developing strategic programs for the country's development with an emphasis on possible environmental risks and threats [18]

Summing up small results, we can draw the following conclusions:

- 1) tourism in Kazakhstan is developing rapidly and the state is actively promoting this
- 2) the state and private enterprises are trying to develop eco-tourism
- 3) the ecology of the country is not in the best condition. It is necessary today to undertake and implement as many sustainable principles and technologies as possible
- 4) the country has both successful examples of eco-projects and moments requiring improvement and a more serious, thorough approach

## MARKETING AND SALES OF “GREEN WYNDHAM GARDEN ASTANA”

### 2.1 Wyndham Garden Astana SWOT analysis

#### **Strengths:**

- Hotel is being a franchise of Wyndham Garden & Resorts, thus can implement some of the principles from hotel chain personal green certification strategy
- The hotel and its staff have passed BREEAM certification (an international scheme that provides an independent third party certification of the assessment of the sustainability performance of individual buildings, communities and infrastructure projects)[19]
- Hotel location is being very beneficial as it is located in a new part of the city. There is enough space for windmills and wind is being very strong in that part of city during the whole year
- The hotel staff are open to training, support the hotel's transition to green technologies. Proof of this is the fact that each employee sorts waste correctly, and attends internal eco-trainings in full

#### **Weaknesses:**

- The hotel building itself is not made of eco-friendly materials. Accordingly, it will not work to rebuild the building. The hotel can move into a sustainable direction only in the operational part and the area of energy consumption
- The budget of the hotel has decreased significantly and at current moment it is very limited. COVID-19 has negatively impacted the entire tourism sector around the world. At Wyndham Garden Astana, there were serious financial losses and clientele volumes have still not recovered. Some of the activities that were one of the main incomes are still not functioning according to the standards of the epidemiological

situation (banquets and other large-scale conferences, events). Accordingly, we are not able to introduce a lot of green technologies this year

- The hotel was opened in 2017. All technology and equipment are quite new. Changing meters or even simple faucets is not entirely profitable for the hotel
- The hotel has its own strategies and development plans for the next 5 years. Accordingly, for the implementation of ours, it is necessary to change many points, coordinate, and at some points recalculate the already allocated funds. Somewhere it is necessary to persistently convince the management of the profitability of our strategy
- At the moment, the hotel and its grounds are not adapted for windmills. For the installation of windmills, it is necessary to hire specialists, appraisers. It may be necessary to expand land holdings. In addition, to carry out an underground power line. Re-tune the entire energy system

**Opportunities:**

- If the hotel fits chain's green certification points, then Wyndham Garden Astana will be able to have this international certification by using franchise authority. Obtaining international certifications is hard enough, but the franchise will play a role
- There are opportunities to improve networking with eco-organizations. The hotel has a good reputation and good partners. For example, AIFC, National Bank, Air Astana and etc.
- There is a possibility of attracting public money. Since the project is suitable for participation in state competitions, both in the tourism, eco-tourism section, and in the sustainable development of the country. The hotel and staff can also help prepare for participation

- The hotel has a good marketing and sales department. There are great opportunities for hotel promotion and increasing number of customers
- The hotel has additional premises: restaurant, banquet hall, karaoke hall, conference rooms. Accordingly, if the hotel has eco-technologies, then it will be an excellent place for holding various conferences, meetings and even excursion examples of green technologies

**Threats:**

- With the rapid development of tourism, the level of competition in the city among hotels is growing. Perhaps a fully-fledged eco-friendly hotel will appear in the city of Nur-Sultan faster. Even in general, the sharp growth of hotels in the city is alarming and forces to fight for the client. Which in turn always leads to risk
- The risk of various epidemiological situations that will again negatively affect the overall tourism sector
- The risk of limited funding. If the hotel budget is not revived in the next six months, then the implementation of our strategy will be an overhead for the hotel
- Since the hotel is a franchise, the management may not approve some points of our strategy, change our plans at the last moment
- Due to the situation of the ecology of the country and the world. The climate may change in a few years and windmills may not be efficient on site
- Since the eco movement is only gaining momentum, there is a risk that green technologies will not attract a large audience. Perhaps, large marketing resources will be needed to promote the hotel in a green direction.

## 2.2 Prospective demand and target population assessment

Based on the SWOT analysis, using the strengths and opportunities of the hotel, create a prospective demand and target population assessment.

### 1. Prospective demand can be assessed as high based on the following facts:

Having conducted a survey among potential clients (appendix 2), we can assume that 45% of those surveyed are seriously concerned about the country's environmental situation. In addition, 48% believe that an eco-friendly hotel will be attractive to both local and foreign tourists. Also, 60% of respondents are ready to sort garbage or have a reusable shampoo dispenser instead of standard disposable plastic amethysts.

These statistics show us that potential customers are positive and open about green technologies in the hotel. Moreover, it will be more attractive for them when choosing a hotel.

Also, examples and statistics from the introduction section of this project show how much the state, private enterprises and environmentalists are committed to the development of green tourism. The country is slowly starting to move towards sustainable development. Accordingly, a hotel with green technologies will be in high demand in the coming years and beyond. Moreover, if in the future we will be able to achieve international certification Wyndham Garden Green Certification.

### 2. Target population assessment

This can be estimated as rapidly and extensively growing clientele growth will increase based on tourism development, more tourist traffic, new hotel marketing strategies and offers.

However, it is worth noting here that the nature of the clientele will expand with the introduction of a green technology strategy. There will be more eco-conscious guests who

choose a hotel based on exactly what the hotel implements and whether uses sustainable principles.

- The hotel could be promoted as a landmark in the city, as it will be one of the first hotels to be internationally certified for the environment. That, with the right advertising, will cause a huge flow of clientele of both local and foreign guests.
- Also, the hotel will be attractive for local and foreign organizers of conferences and other events organizers in the field of sustainable development. Participants and guests of the events will also be accommodated in the hotel, respectively, another stream of customers will be added
- People whose activities are related to tourism, ecology, sustainable development will also be more likely to choose Wyndham Garden Astana
- In addition, given the development of the hotel area, the number of guests will also grow and expand.

### **2.3 Risks evaluation and analysis**

Based on the SWOT analysis, using the weaknesses and threats of the hotel, create a Risks evaluation and analysis.

The project has the following main risks:

1) Since the hotel is a franchise, the moments of introducing new strategies should be discussed with the management and not only with the local. The hotel has approved our strategy, but only for this year. A new request must be submitted for the next year. And this is always the risk that in one year the project may stop abruptly or be closed completely. It depends not only on the effectiveness of the project or the financial part, but also on the plans of the main hotel chain.

2) The second dangerous moment is the financial part. If the hotel is unable to recover its budget after the pandemic until the summer of 2022, then the planned purchase of light



and water sensors will have to be postponed. And this will be followed by the transfer or cancellation of other technologies along the chain. Financial risk can also include the fact that other sources of funding are currently in question. We will apply and participate. But the state bases the allocation of resources on a competitive basis. It is also risky and we cannot say with certainty that we will receive funding for next year or another.

3) The third risk is different epidemiological situations. Drawing conclusions from 2020, we are aware that a pandemic or a smaller-scale event could occur at any time that negatively affects the tourism sector. Again, losses and, accordingly, transfer, possible cancellation of our project.

4) In the long term, there may be a risk of climate change in the area as a result of global warming and polluted environment. This factor may affect the sources of alternative energy, which the hotel will start using from 2024 according to the strategy plan.

5) The human factor is always a big risk. Perhaps not all guests will be responsible for sorting waste, using reusable dispensers and other issues can occur. Or the human factor on the part of workers. Unscrupulous employees can hand over all waste in one container, saving their time by not sending each container to the right place. Accordingly, the efficiency of the project is reduced by a certain part.

## Management and implementation of “Green Wyndham Garden Astana” project

### 3.1 Project description and components

In our business plan for the implementation of the concept of sustainable development for Wyndham Garden Astana, the project will be based on three main blocks. These are utilities, waste disposal and employee awareness. Having assessed the opportunities and risks that may arise when implementing the concept presented by us

Our main goal is to reduce waste pollution, unnecessary consumption of water and electricity, as well as instill in our staff the spirit of sustainable consumption and develop special discipline and awareness of the eco-system in the hotel.

To date, at the Wyndham Hotel, we have analyzed and identified statistical data regarding the consumption of electricity and water. It is also important to note that during the construction of the hotel, the moments of conducting separate water pipes for separation and calculation were not taken into account (especially rooms, kitchen, fitness, etc.). Also, the hotel does not have the necessary meters that could track the amount of electricity consumed. To reduce energy consumption and reduce costs.

#### **1 block. Utilities.**

##### *1.1 Reducing water consumption.*

Goal: Use water-saving faucets and toilets as much as possible.

Action required: Evaluate existing faucets in rooms, restaurant sinks, and staff restrooms. What pressure of water is used, what is the maximum, how much water is spent per minute? Is it possible to replace it with water supply sensors?

Data Needed: A list of all water ineffective sink fixtures and their locations, and a measure of the monthly cost of the water service.

##### *1.2 Electricity*

Goal: to reduce electricity consumption and come to the rational use of energy resources.

What actions are required: Inspect the lighting in the hotel, assess the quality and condition, whether these lamps in the hotel’s residential and non-residential facilities are energy efficient. Consider installing windmills or solar panels. Minimize the amount of

energy consumed by indoor lighting used in low traffic areas using timers or sensors. Energy efficient lamp options are CFL (Compact Fluorescent Lamp) and LED (Light Emitting Diodes) lamps.

What data is needed: a list of all lamps used in hotel lighting, dividing them into energy efficient and conventional. Assessing the costs, benefits and risks of installing windmills or solar panels. List of hotel locations with on / off timers or sensors.

## **2. Disposal of waste.**

### *2.1 Food (Organic)*

Food waste should be composted as much as possible

Purpose: to sort waste correctly, to exclude other materials from entering food waste, making it easier to compost

Implementation: find composting facilities, train staff on proper sorting

If this is not financially beneficial, consider other ways to dispose of the food waste

Required data: Evidence of marked containers for sorting (container photos and signs)

### *2.2 Plastic waste:*

Requirement: Minimize the use of single-use plastic by hotel guests. Using alternatives.

Goal: Reduce the amount of single-use plastic in rooms that ends up in waste streams. Namely, the hotel amenities provided by the hotel in the form of soaps, shampoos, hair conditioners, etc.

Methods of Implementation: An alternative approach that will minimize and completely eliminate single-use plastic from hotel rooms. Possibility of replacing plastic containers with reusable dispensers in rooms where guests use the hotel's amenities.

Possible risks: reduction in the cost of appearance, and a decrease in the reputation of the hotel, with the inconvenience that the guest may encounter in the room.

## **3. Awareness of the staff.**

Purpose: to train hotel staff and introduce environmental practices, to motivate staff as much as possible, to reduce the thoughtless waste of water and electricity, to encourage sorting of waste and supporting the eco system in the hotel.

What actions are required: Provide maximum training for all hotel employees, regardless of their position. Develop incentive systems for employees, but also impose disciplinary penalties for violations of requirements and failure to fulfill assigned tasks. Fully informing the guests of the hotel about green practices to increase loyalty.

Required data: Statistics of systematic meetings, team building, online training, a system of bonuses and employee motivation.

### 3.2 Timeline and stages of implementation

When implementing a strategy, it is important to come up with a definite plan of concepts starting from the reduction of water and electricity consumption. Further engage in the reduction of plastic and organic waste at a later stage. But at the same time, the first to include and develop a part with minimal costs - training of hotel personnel. And also in the long term, consider the installation of windmills on the territory of the hotel.

#### Timeline:

- ✓ March 2021 - collection and further disposal of used batteries, as they are one of the most hazardous waste
- ✓ April 2021 - installation in each hotel office of boxes for the collection of waste paper by employees, for delivery to the collection points. The average cost at reception points is 70 tenge per 1 kilogram. This procedure helps conserve resources by reducing paper and paperboard waste
- ✓ Starting from June 2021, it is necessary to make adjustments to the employee incentive system, to introduce a certain amount of incentives for employees (the best proposal for improving the strategy, the best work result)
- ✓ Further, in September 2021, start the process of installing meters in different places of the hotel in order to monitor water costs and energy consumption
- ✓ October 2021 to replace plastic containers in hotel rooms with dispensers. Thereby minimizing and eliminating the use of plastic by guests and staff
- ✓ December 2021, reduce the reuse of bed linen by guests, which minimizes water consumption for washing, as well as the cost of detergents
- ✓ 2022, replacement with water-saving faucets and toilets, both in the hotel staff premises and in the residential areas. Elimination of all water ineffective sink fixtures and their location

- ✓ Beginning in 2022, completely abandon conventional lamps by installing energy efficient ones
- ✓ 2023, installation of water and light sensors in all possible areas of the hotel, with low traffic. In addition to places of constant stay of guests such as (main entrance, reception, etc
- ✓ 2024, after analyzing the start of the installation of windmills on the hotel grounds, to reduce energy costs.

#### 4. Financial screen of “Green Wyndham Garden Astana” project

For the financial calculation, we took the first quarterly report Q1 (January 2021-March 2021):

- 1) Utility costs
- 2) Information on the number of guests for a given period
- 3) Number of nights spent
- 4) Organic waste
- 5) Waste plastic

##### 1. Utility costs.

Name	Indicators / Amount	Kitchen		Fitness		Laundry		Other areas of the hotel
		ГBC	XBC	ГBC	XBC	ГBC	XBC	
<b>Water supply: volume, m3</b>	1 612	7	230	11	15	24	190	446
<i>tariff, tenge with VAT per m3</i>	219,1							
<b>amount, tenge</b>	<b>353 189</b>	<b>1 534</b>	<b>50 387</b>	<b>2 410</b>	<b>3 286</b>	<b>5 258</b>	<b>41 624</b>	<b>97 706</b>
<b>Sewerage: volume, m3</b>	1 612	7	230	11	15	24	190	446
<i>tariff, tenge with VAT per m3</i>	227,7							
<b>amount, tenge</b>	<b>366 974</b>	<b>1 594</b>	<b>52 360</b>	<b>2 504</b>	<b>3 415</b>	<b>5 464</b>	<b>43 254</b>	<b>101 532</b>
<b>Electricity</b>								
<i>volume, kW</i>	238 908							137 318
<i>tariff, tenge with VAT</i>	17,9							
<b>amount, tenge</b>	<b>4 281 231</b>	-	-	-	-	-	-	<b>2 460 739</b>
<b>Heating</b>								
<i>volume, Gcal</i>	731,3500							451,00
<i>ariff, tenge with VAT</i>	4 770,7							
<b>amount, tenge</b>	<b>3 489 059</b>	-	-	-	-	-	-	<b>2 153 013</b>
<b>Total:</b>	<b>8 490 408</b>	<b>3 127</b>	<b>102 746</b>	<b>4 914</b>	<b>6 701</b>	<b>10 721</b>	<b>84 877</b>	<b>4 812 990</b>

January 2021

Name	Indicators / Amount	Kitchen		Fitness		Laundry		Other areas of the hotel
		ГБС	ХБС	ГБС	ХБС	ГБС	ХБС	
<b>Water supply: volume, m3</b>	1 750	58	185	19	27	148	139	346
<i>tariff, tenge with VAT per m3</i>	219,1							
<b>amount, tenge</b>	<b>383 376</b>	<b>12 706</b>	<b>40 528</b>	<b>4 162</b>	<b>5 915</b>	<b>32 423</b>	<b>30 451</b>	<b>75 799</b>
<b>Sewerage: volume, m3</b>	1 750	58	185	19	27	148	139	346
<i>tariff, tenge with VAT per m3</i>	227,7							
<b>amount, tenge</b>	<b>398 390</b>	<b>13 204</b>	<b>42 115</b>	<b>4 325</b>	<b>6 147</b>	<b>33 692</b>	<b>31 644</b>	<b>78 767</b>
<b>Electricity</b>								
<i>volume, kW</i>	244 240							160 000
<i>tariff, tenge with VAT</i>	17,9							
<b>amount, tenge</b>	<b>4 376 781</b>	-	-	-	-	-	-	<b>2 867 200</b>
<b>Heating</b>								
<i>volume, Gcal</i>	657,0000							439,00
<i>ariff, tenge with VAT</i>	4 770,7							
<b>amount, tenge</b>	<b>3 136 187</b>	-	-	-	-	-	-	<b>2 093 291</b>
<b>Total:</b>	<b>8 294 733</b>	<b>25 910</b>	<b>82 644</b>	<b>8 488</b>	<b>12 062</b>	<b>66 115</b>	<b>62 095</b>	<b>5 115 057</b>

## February 2021

Name	Indicators / Amount	Kitchen		Fitness		Laundry		Other areas of the hotel
		ГБС	ХБС	ГБС	ХБС	ГБС	ХБС	
<b>Water supply: volume, m3</b>	1 352	213	122	69	49	36	207	656
<i>tariff, tenge with VAT per m3</i>	219,1							
<b>amount, tenge</b>	<b>296 185</b>	<b>46 662</b>	<b>26 727</b>	<b>15 116</b>	<b>10 735</b>	<b>7 887</b>	<b>45 348</b>	<b>143 711</b>
<b>Sewerage: volume, m3</b>	1 352	213	122	69	49	36	207	656
<i>tariff, tenge with VAT per m3</i>	227,7							
<b>amount, tenge</b>	<b>307 784</b>	<b>48 490</b>	<b>27 773</b>	<b>15 708</b>	<b>11 155</b>	<b>8 195</b>	<b>47 124</b>	<b>149 339</b>
<b>Electricity</b>								
<i>volume, kW</i>	156 507							156 507
<i>tariff, tenge with VAT</i>	17,9							
<b>amount, tenge</b>	<b>2 804 605</b>	-	-	-	-	-	-	<b>2 804 605</b>
<b>Heating</b>								
<i>volume, Gcal</i>	332,0361							332,04
<i>ariff, tenge with VAT</i>	4 770,7							
<b>amount, tenge</b>	<b>1 584 047</b>	-	-	-	-	-	-	<b>1 584 047</b>
<b>Total:</b>	<b>4 992 622</b>	<b>95 152</b>	<b>54 500</b>	<b>30 824</b>	<b>21 889</b>	<b>16 082</b>	<b>92 472</b>	<b>4 681 703</b>

## March 2021

Table №1. Number of guests and nights stayed (January 2021-March 2021)

Months	Room Nights	Guest
January	1722	2348
February	2573	3181
March	3329	4132



## 1) Table №2. Organic waste:

Months	Fruits and vegetables (amount of waste in kg)
January	3232
February	3258
March	5852

## 2) Table № 3, Waste plastic:

Months	Shampoo
January	1020
February	1240
March	1820

### Reducing water consumption calculations

When analyzing, calculating the data, you can find out that the average monthly water consumption per guest is - 0.1695 cubic meters

By implementing a strategy and replacing hand faucets with sensory faucets, which reduce water consumption from an average of 32% to 54%, it is possible to calculate percentage of reduction in water use by guests and hotel staff.[20]

Where the price of the one sensor faucet is 51.139 tenge multiplied by 220 sinks in the hotel equal to 11 250 580 tenge.

The investment cost for replacing mixers will be equal to 11.250.580 tenge. In this case, there can be the possibility of a corporate discount for a bulk order.

The total cost will be approximately 9.000.000 tenge.

With a 40% reduction in water consumption by using sensor faucets and

comparing the available data, we can calculate a reduction in the amount of water costs in the long term, covering the cost of replacing the sensor faucets.

Consumption per guest will be -0.068 m<sup>3</sup> per person.

Water tariff - 219.1 tenge per month.  $1644 \text{ m}^3 * 219.1 \text{ tenge per month}$  at present, the total cost for the quarter is 360.200 tenge.

When reducing water consumption:

1644 m<sup>3</sup> -100%

X - 40% = 657.6 m<sup>3</sup> for the quarter.

$657.6 * 219.1 = 144.080 \text{ tenge per quarter.}$

For the year, the amount of money saved when implementing our concept is 864.480 tenge. With a long-term perspective of 10 years, the savings will be - 8.644.800 tenge.

## **2) Rational use of energy resources.**

At the moment, we have general indicators of electricity costs for the entire hotel, without dividing them into separate parts (fitness, kitchen, rooms, and laundry) due to the lack of electricity meters that measure the number of kilowatts per segment.

Then, when implementing our strategy, installing electricity meters separating the hotel parts to calculate electricity consumption. This will allow you to calculate the possible costs as accurately as possible.

The concept implies the installation of 10 electricity meters on the hotel territory (kitchen, laundry, fitness area, floors with rooms)

The cost of one electric meter will be -36,000 tenge. The total amount will be 360,000 tenge.

In the future, we will be able to track the amount of energy consumed by each part of the hotel. Thanks to this, we will be able to replace inefficient luminaires and install light sensors in low-traffic areas.

Also, another option in the future may be the installation of windmills on the territory of the hotel. At the same time, in the process of work, it will not affect the environment and emissions of waste into the atmosphere.

Based on article “Energy Saving of a University Building Using a Motion Detection Sensor and Room Management System” When installing motion sensors in areas with low attendance of guests and staff, it makes it possible to reduce costs by an average of 50%. by having indicators of energy consumption.[21]

Average volume of kW for the quarter  $-453.825 * 17.9 = 8.123.467$  tenge

Therefore, with a 50% reduction in the future, we can reduce electricity consumption to 4,061,733 per quarter.

## **2. Waste**

### *2.1 Organic waste.*

At the moment, there are no companies in the city of Nur-Sultan that accept organic waste for subsequent composting. Based on foreign experience, with the possibility of organic waste (fruit), Crown Town in Charlotte (USA) provides companies with 64-gallon containers and provides individual rates for each enterprise. On average, \$30 per month for the export of 50 kilograms.

Thus, from our estimates for the quarter, with such delivery possibilities, the hotel collects about 12.342 kilograms of organic waste. The cost of returning the hotel waste will be about \$ 2,400 per month.

From this it follows that this is not profitable for the hotel and this is an extra cost in the realities of our country. An alternative option for the disposal of organic waste is to send it to livestock, animal shelters or farmers with compost pits.

### *2.2 Plastic Waste*

The hotel provides amenities in the amount of 30 ml daily or at the request of guests. Such as shampoo in a plastic container. Based on the available data for the quarter (January 2021 - March 2021), plastic waste amounted to about -122.4 kilograms, in addition, it is worth considering that when using plastic containers and their liquid contents, chemical waste remains in the order of 40.800 liters.

According to the table №4

The quarterly consumption of shampoo is 4080 tubes, with an average cost of -120 tenge.

$4080 * 120 = 489.600$  tenge presumably the hotel spends on the provision of shampoos for the quarter.

1,958,400 tenge per year.

Thus, replacing plastic containers with reusable dispensers with an average cost of 48,000 tenge, Considering the amount of rooms in the hotel that equal to 183—the total investment is calculated as follows  $48,000 * 183$  (hotel rooms) =8,784,000 tenge. In the long term, this concept will reduce huge amounts of plastic waste. And chemical waste will only go to the sewer, not remaining in a plastic container.

### 3. Corporate culture

When implementing an eco strategy, it is important to follow a hotel reward system to raise awareness of the wise use of water, electricity and waste disposal. The accrual of bonuses (bonuses) to the company's personnel should be carried out according to a certain scheme, which includes both incentives and disciplinary fines.

Table №4. Employee incentive system

Proposal to improve the hotel's eco-strategy	+ 15% of monthly salary
Best result after	+ 10% of monthly salary
Active participation in implementation	+ 5% of monthly salary

Table №5. Disciplinary Penalties

Failure to comply with the rules of the current eco strategy	-10% from monthly salary
Shortcomings in the employee's work	-15% from monthly salary
Violation of the safety of guests and	-5% from monthly salary

To ensure the success of the company, it is important not only to invest in the facility development, but also in personnel, since the final result also depends on employees work and motivation. Therefore, it is necessary to train employees on a green policy implementation and develop ecological approach into the process.

## GENERAL CONCLUSIONS

Green technologies are already a kind of necessity in the modern world. Sustainable tourism is developing rapidly and successfully around the world. Taking into account the state of the ecology of Kazakhstan and the scale of the prospective development of tourism, the introduction of green technologies on the basis of the hotel at the moment and in the coming years is highly relevant and necessary.

In the case of Wyndham Garden Astana, the transition to green innovation must be gradual and step-by-step. The strategy developed by us contains an analysis of the best suitable principles and technologies, financial calculation and staging of the introduction of innovations. By adhering to our strategy and gradual implementation, we avoid many risks, in particular financial and administrative ones.

At the moment, this is of particular importance, because the hotel's budget has not yet recovered from COVID-19. Accordingly, immediately requesting large sums for the development of our project is not a very reasonable option. This entails even greater risks.

With regard to administrative risks, the most important thing with a gradual implementation within 4 years, the administration and higher officials will not have any questions about drastic changes in the structure of the hotel. Especially considering the rights and possibilities of the hotel as a franchise. Also, with a systematic implementation, the most important thing is that we bring employees and clientele to the new green principles of the hotel accurately, efficiently and effectively.

Our implementation strategy is quite modern and effective, and the idea is relevant both today and in the near future.

## REFERENCES

1. United Nations (2018) About the Sustainable Development Goals. URL: <https://bit.ly/2jHjQmD>
2. UN Division for Sustainable Development Goals (2018) Helping governments and stakeholders make the SGDs a reality. URL: <https://bit.ly/1BSEj9K>
3. Finn Bolding Thomsen. Green Key enters collaboration with Wyndham Hotels & Resorts. URL: <https://www.greenkey.global/stories-news-1/2019/8/30/international-eco-label-green-key-enters-collaboration-with-wyndham-hotels-amp-resorts>
4. Wyndham Hotels & Resorts Social Responsibility Report 2020. URL: <https://corporate.wyndhamhotels.com/wp-content/uploads/2020/08/GRI-Report-2020-Final.pdf>
5. Wyndham destinations 2018-2019 Social Responsibility Report. URL: <https://www.wyndhamdestinations.com/content/dam/wyndham/wynd-investor-site/corporate-social-responsibility/overview-and-performance/social-responsibility-report-2019-sr-report.pdf>
6. Sharpley R. (2000). Tourism and sustainable development: Exploring the theoretical divide. Journal of Sustainable Tourism, 8(1), 1-19. URL: <http://dx.doi.org/10.1080/09669580008667346>
7. Roner L. (2006). The hospitality industry: Have hotels checked out on responsible tourism? Ethical Corporation. URL: <http://www.ethicalcorp.com>
8. Elkington J. (1997). Cannibals with forks: The triple bottom line of 21<sup>st</sup> century business. Oxford, UK: Capstone.
9. Ishkenova B. (2021) Government want to spend 2,8 trillion tenge on the development of tourism in Kazakhstan. URL: <https://lsm.kz/kazahstanskij-turizm-privlechets-bolee-2-trln-tenge--prognoz>

10. vlast.kz (2021), In the development of national parks "Kolsay Kolderi", "Altyn-Emel" and "Charyn" intend to invest 14.5 billion tenge. URL: <https://vlast.kz/amp/novosti/44550-v-razvitie-nacparkov-ksaj-klderi-altyn-emel-i-caryn-namereny-vlozit-145-mlrd-tenge.html>
11. kursiv.kz (2021), Kazakhstan took the 62nd place in the rating of sustainable tourism. URL: <https://kursiv.kz/news/otraslevye-temy/2021-03/kazakhstan-zanyal-62-e-mestov-reytinge-ustoychivogo-turizma>
12. Avesta News (2021) Free courses for employees of the tourism sector launched in East Kazakhstan region. URL: <https://avesta-news.kz/besplatnye-kursy-dlya-sotrudnikov-sfery-turizma-zapustili-v-vko/>
13. Tenir Hotels, URL: <https://www.tenirhotels.com/>
14. Kim N. (2018) UNESCO promotes sustainable tourism at UNESCO sites in Kazakhstan's regions. URL: <http://ru.unesco.kz/unesco-promotes-sustainable-tourism-at-unesco-designated-sites-in-the-regions-of>
15. Kazistaev E. 2021 Kazakhstan became the third country in the world in terms of air pollution. URL: <https://liter.kz/kazahstan-v-trojke-stran-po-urovnyu-zagryazneniya-vozduha/amp/>
16. Orazbekova A. 2021 Kazakhstan has not fully completed any of the 20 biodiversity targets. URL: <https://newtimes.kz/obshchestvo/125535-iz-20-zadach-pobioraznoobraziiu-kazahstan-polnotsenno-ne-vypolnil-ni-odnoi/amp>
17. Vodnev V. 2020 Cobeituz is guarded from barbarian tourists. URL: [https://m.ru.sputnik.kz/society/20200727/14575543/Kak-rozovoe-ozero-Kobeytuz-okhranyayut-ot-turistov-varvarov---video.html?mobile\\_return=no](https://m.ru.sputnik.kz/society/20200727/14575543/Kak-rozovoe-ozero-Kobeytuz-okhranyayut-ot-turistov-varvarov---video.html?mobile_return=no)



18. Satpayev D. (2020) It was late tomorrow. Environmental risks of Kazakhstan. URL: <http://www.academic-waters.org/ru/nauchno-issledovatel'skij-proekt-po-napisaniyu-kollektivnoj-monog/>
19. URL: <https://www.breeam.com/>
20. Harmon A. (2016). Do automatic water faucets actually save water? A comparative test of manual and automatic water faucets at California State University, Sacramento.
21. Jong-Won, L.; Young, I.K. (2020). Energy Saving of a University Building Using a Motion Detection Sensor and Room Management System. Seoul National University of Science and Technology, Seoul.
22. Argandoña A. (2010). Corporate Social Responsibility in the Tourism Industry. Some lessons from the Spanish experience (IESE Working Paper No. 844). URL: <http://www.iese.edu>
23. WTO. URL: <http://www.world-tourism.org/>

## APPENDIXES

### 6.1 Survey among Astana hotels

**Количество опрошенных отелей 4 звезды: 22**

**Количество опрошенных отелей 5 звезд: 8**

**Общее количество опрошенных отелей: 30**

**Количество вопросов: 10**

**Вопросы:**

- 1) Знакомы ли Вы с зелёными технологиями в отельном бизнесе?
  - (1) Да
  - (2) Нет
  - (3) Затрудняюсь ответить
- 2) Заинтересован ли Ваш отель во внедрении зеленых технологий? (Эко утилизация отходов, использование альтернативных источников энергии, ветряные мельницы и т п)
  - (1) Да
  - (2) Нет
  - (3) Зависит от финансовых расходов
  - (4) Затрудняюсь ответить
- 3) Сортирует ли Ваш отель отходы?
  - (1) Да
  - (2) Нет
- 4) Если сортирует куда утилизирует? (Допустим бумагу, пластик, пищевые отходы)
- 5) В номерах Вашего представляется вода в
  - (1) Пластиковых бутылках

- (2) Жестяных бутылках
  - (3) Стеклянных бутылках
  - (4) Не предоставляем
- 6) Есть ли у Вас в отели диспенсеры с водой для гостей?
- (1) Да
  - (2) Нет
- 7) Заинтересованы ли Вы во внедрении новых технологий, которые снизят электро и гидро расходы? (Не моментально, в разбеге 3 лет)
- (1) Да
  - (2) Нет
  - (3) Затрудняюсь ответить
- 8) Сколько Вы готовы инвестировать для внедрения эко технологий в Ваш отель ежегодно?
- (1) 0 тг
  - (2) до 500.000 тг
  - (3) до 1 млн тг
  - (4) до 3 млн тг
- 9) Получал ли Ваш отель рекомендации, желания, жалобы по поводу экологичности отеля?
- (1) Да
  - (2) Нет
  - (3) Затрудняюсь ответить
- 10) Как думаете через сколько времени отельный бизнес Казахстана начнет активно переходить на эко ресурсы и принципы?
- (1) Ближайшие 3 года

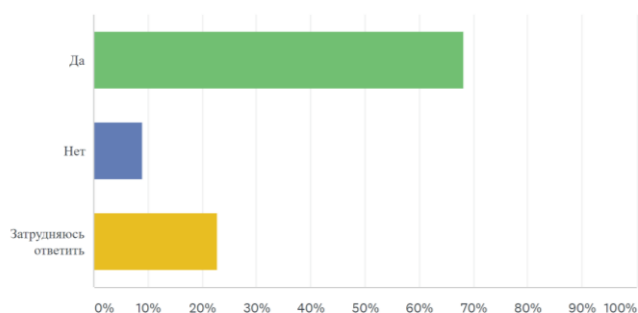
- (2) Ближайшие 5 лет
- (3) Ближайшие 10 лет
- (4) Затрудняюсь ответить

### Результаты опроса отелей 4 звезды:

#### Вопрос 1:

Знакомы ли Вы с зелёными технологиями в отельном бизнесе?

Answered: 22 Skipped: 0

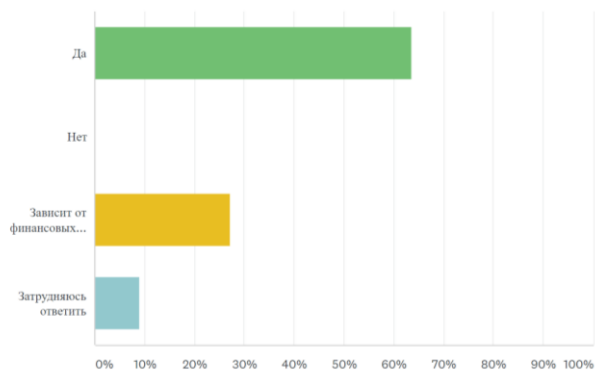


ANSWER CHOICES	RESPONSES
Да	68.18% 15
Нет	9.09% 2
Затрудняюсь ответить	22.73% 5
<b>TOTAL</b>	<b>22</b>

#### Вопрос 2:

Заинтересован ли Ваш отель во внедрении зеленых технологий? (Эко утилизация отходов, использование альтернативных источников энергии, ветряные мельницы и т п)

Answered: 22 Skipped: 0

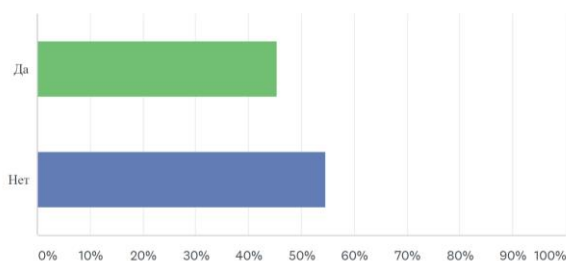


ANSWER CHOICES	RESPONSES
Да	63.64% 14
Нет	0.00% 0
Зависит от финансовых расходов	27.27% 6
Затрудняюсь ответить	9.09% 2
<b>TOTAL</b>	<b>22</b>

*Вопрос 3:*

Сортирует ли Ваш отель отходы?

Answered: 22 Skipped: 0



ANSWER CHOICES	RESPONSES	
Да	45.45%	10
Нет	54.55%	12
<b>TOTAL</b>		<b>22</b>

*Вопрос 4:*

Ответ 1: Сдаем макулатуру и стекло

Ответ 2: Бумагу сдаем в макулатуру

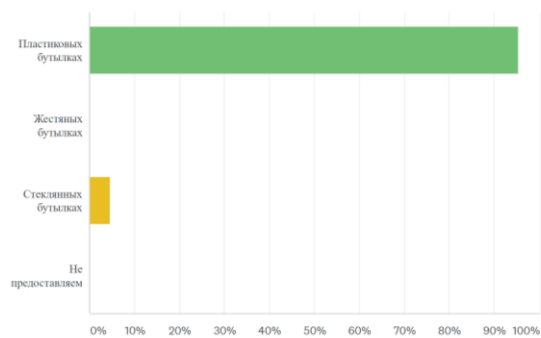
Ответ 3: Чаще всего к сожалению выбрасываем как обычные отходы. В общий бак. Но в разных мешках

Ответ 4: Мы сортируем, сдаем в специальные службы. Но не знаю точно перерабатывают ли они

*Вопрос 5:*

### В номерах Вашего отеля представляется вода в

Answered: 22 Skipped: 0

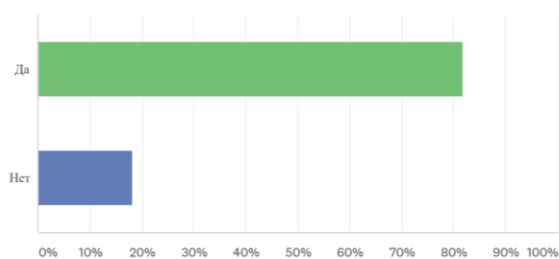


ANSWER CHOICES	RESPONSES	
▼ Пластиковых бутылках	95.45%	21
▼ Жестяных бутылках	0.00%	0
▼ Стеклянных бутылках	4.55%	1
▼ Не предоставляем	0.00%	0
<b>TOTAL</b>		<b>22</b>

### Вопрос 6:

### Есть ли у Вас в отеле диспенсеры с водой для гостей?

Answered: 22 Skipped: 0

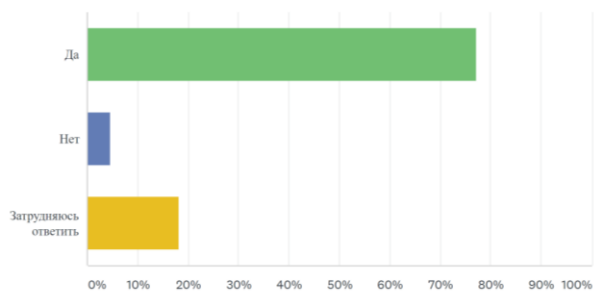


ANSWER CHOICES	RESPONSES	
▼ Да	81.82%	18
▼ Нет	18.18%	4
<b>TOTAL</b>		<b>22</b>

### Вопрос 7:

Заинтересованы ли Вы во внедрении новых технологий, которые снизят электро и гидро расходы? (Не моментально, в разбеге 3 лет минимум)

Answered: 22 Skipped: 0

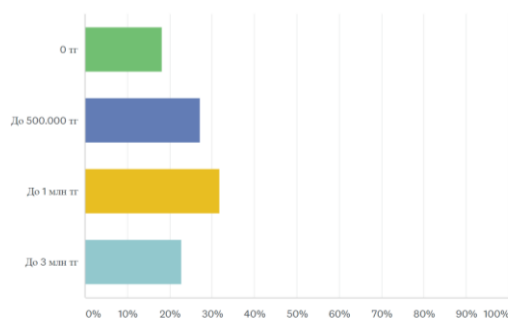


ANSWER CHOICES	RESPONSES
Да	77.27% 17
Нет	4.55% 1
Затрудняюсь ответить	18.18% 4
<b>TOTAL</b>	<b>22</b>

Вопрос 8:

Сколько Вы готовы инвестировать для внедрения эко технологий в Ваш отель ежегодно?

Answered: 22 Skipped: 0

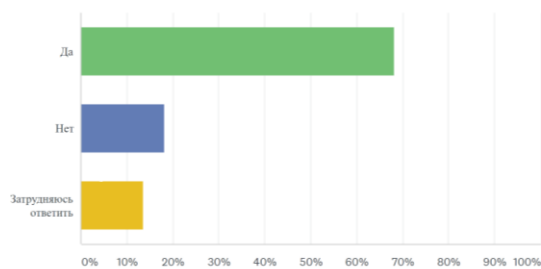


ANSWER CHOICES	RESPONSES
0 тт	18.18% 4
До 500.000 тт	27.27% 6
До 1 млн тт	31.82% 7
До 3 млн тт	22.73% 5
<b>TOTAL</b>	<b>22</b>

Вопрос 9:

Получал ли Ваш отель рекомендации, желания, жалобы по поводу экологичности отеля?

Answered: 22 Skipped: 0

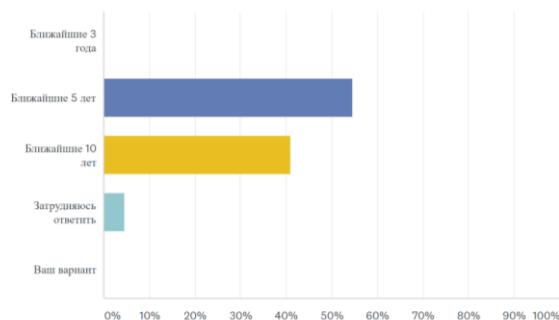


ANSWER CHOICES	RESPONSES
Да	68.18% 15
Нет	18.18% 4
Затрудняюсь ответить	13.64% 3
<b>TOTAL</b>	<b>22</b>

Вопрос 10:

Как думаете через сколько времени отельный бизнес Казахстана начнет активно переходить на эко ресурсы и принципы?

Answered: 22 Skipped: 0



ANSWER CHOICES	RESPONSES
Ближайшие 3 года	0.00% 0
Ближайшие 5 лет	54.55% 12
Ближайшие 10 лет	40.91% 9
Затрудняюсь ответить	4.55% 1
Ваш вариант	0.00% 0
<b>TOTAL</b>	<b>22</b>

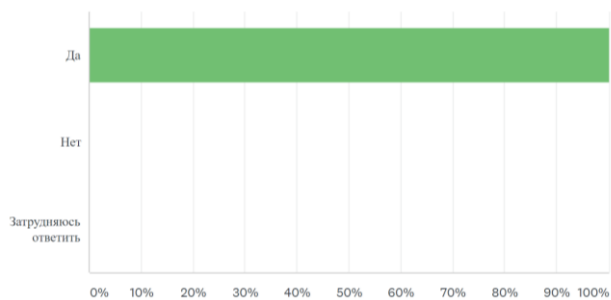
**Результаты опроса отелей 5 звезд:**

Вопрос 1:



## Знакомы ли Вы с зелёными технологиями в отельном бизнесе?

Answered: 8 Skipped: 0

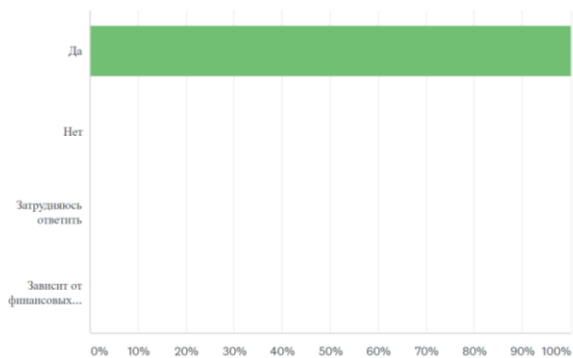


ANSWER CHOICES	RESPONSES
Да	100.00% 8
Нет	0.00% 0
Затрудняюсь ответить	0.00% 0
<b>TOTAL</b>	<b>8</b>

### Вопрос 2:

Заинтересован ли Ваш отель во внедрении зеленых технологий? (Эко утилизация отходов, использование альтернативных источников энергии, ветряные мельницы и т п)

Answered: 8 Skipped: 0

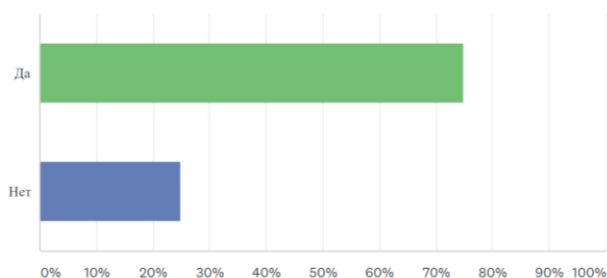


ANSWER CHOICES	RESPONSES
Да	100.00% 8
Нет	0.00% 0
Затрудняюсь ответить	0.00% 0
Зависит от финансовых расходов	0.00% 0
<b>TOTAL</b>	<b>8</b>

### Вопрос 3:

## Сортирует ли Ваш отель отходы?

Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES
Да	75.00% 6
Нет	25.00% 2
<b>TOTAL</b>	<b>8</b>

### Вопрос 4:

Ответ 1: Пластик, бумага, металл сдаём

Ответ 2: Бумагу сдаем в макулатуру

Ответ 3: Бумага на макулатуру, пластик сдаем

Ответ 4: Макулатура, пищевые отходы сдаем организации которая делает удобрение

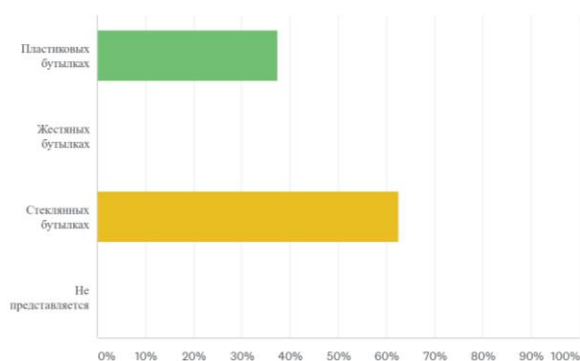
Ответ 5: Только бумагу на макулатуры

Ответ 6: Работаем со специальной компанией по переработке мусора

### Вопрос 5:

## В номерах Вашего отеля представляется вода в

Answered: 8 Skipped: 0

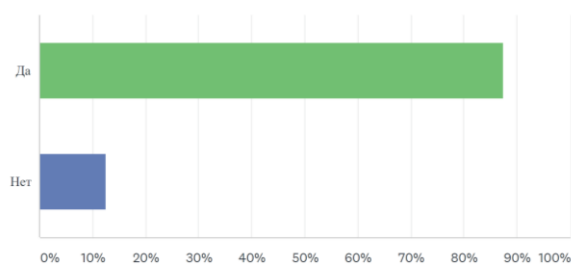


ANSWER CHOICES	RESPONSES
Пластиковых бутылках	37.50% 3
Жестяных бутылках	0.00% 0
Стеклянных бутылках	62.50% 5
Не представляется	0.00% 0
<b>TOTAL</b>	<b>8</b>

*Вопрос 6:*

Есть ли у Вас в отеле диспенсеры с водой для гостей?

Answered: 8 Skipped: 0

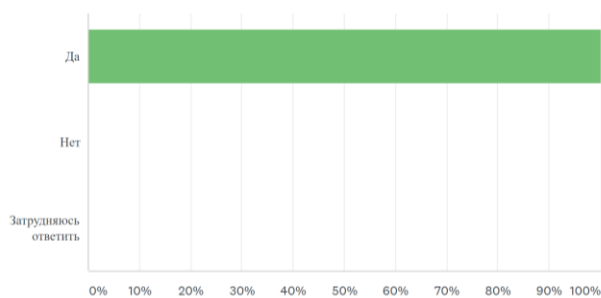


ANSWER CHOICES	RESPONSES
Да	87.50% 7
Нет	12.50% 1
<b>TOTAL</b>	<b>8</b>

*Вопрос 7:*

Заинтересованы ли Вы во внедрении новых технологий, которые снизят электро и гидро расходы? (Не моментально, в разбеге 3 лет минимум)

Answered: 8 Skipped: 0

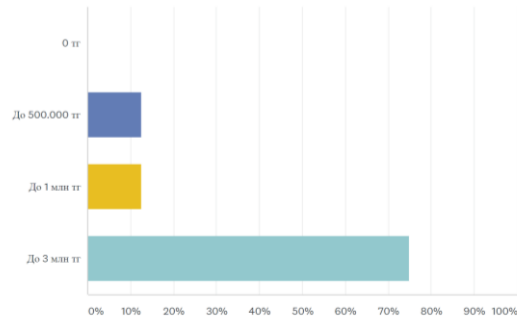


ANSWER CHOICES	RESPONSES
Да	100.00% 8
Нет	0.00% 0
Затрудняюсь ответить	0.00% 0
<b>TOTAL</b>	<b>8</b>

*Вопрос 8:*

Сколько Вы готовы инвестировать для внедрения эко технологий в Ваш отель ежегодно?

Answered: 8 Skipped: 0

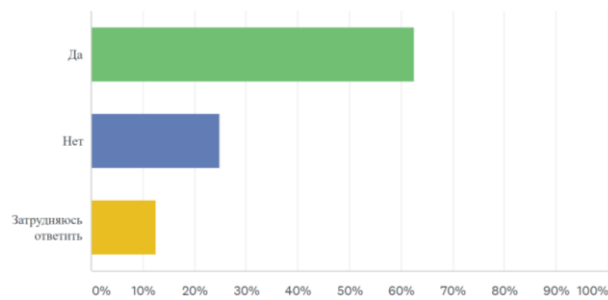


ANSWER CHOICES	RESPONSES	
▼ 0 тг	0.00%	0
▼ До 500.000 тг	12.50%	1
▼ До 1 млн тг	12.50%	1
▼ До 3 млн тг	75.00%	6
<b>TOTAL</b>		<b>8</b>

*Вопрос 9:*

Получал ли Ваш отель рекомендации, желания, жалобы по поводу экологичности отеля?

Answered: 8 Skipped: 0

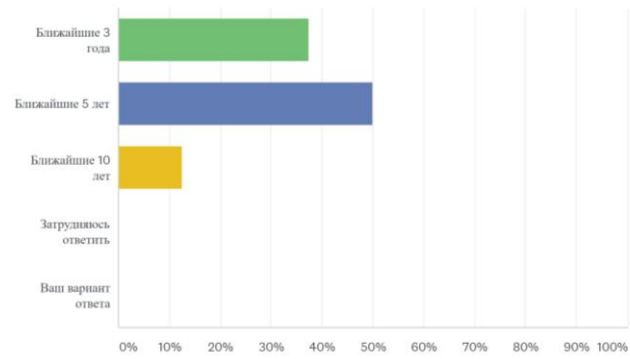


ANSWER CHOICES	RESPONSES	
▼ Да	62.50%	5
▼ Нет	25.00%	2
▼ Затрудняюсь ответить	12.50%	1
<b>TOTAL</b>		<b>8</b>

*Вопрос 10:*

Как Вы считаете через сколько времени отельный бизнес Казахстана начнет активно переходить на эко ресурсы и принципы?

Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ Ближайшие 3 года	37.50% 3
▼ Ближайшие 5 лет	50.00% 4
▼ Ближайшие 10 лет	12.50% 1
▼ Затрудняюсь ответить	0.00% 0
▼ Ваш вариант ответа	Responses 0.00% 0
<b>TOTAL</b>	<b>8</b>

## 6.2 Survey among potential clients

**Количество опрошенных людей: 40 (общий 100)**

**Количество вопросов: 10**

**Вопросы:**

1) Ваш возраст:

- (1) 18 - 24 года
- (2) 25 - 30 лет
- (3) 31-40 лет
- (4) 41 и старше
- (5) Не хочу делиться данной информацией

2) Ваш пол

- (1) Мужской
- (2) Женский
- (3) Не хочу делиться данной информацией

3) Как часто Вы проживаете в отелях в Казахстане?

- (1) Никогда
- (2) До 10 дней в год
- (3) До 20 дней в год
- (4) До 30 дней в год

4) Волнует ли Вас экологическая ситуация в нашей стране?

- (1) Да, сильно
- (2) Да, но особо не тревожусь
- (3) Нет, как-то не задумываюсь

5) Знакомы ли Вы с зелёными технологиями в отельном бизнесе? (Например, источники альтернативной энергии, сортировка и эко утилизация отходов и т д)

(1) Да, слышал и имею четкое представление

(2) Да, но не особо ознакомлен (а)

(3) Нет, не слышал и не знаю совсем

6) При выборе отеля, повлияло бы на Ваше решение соответствие отеля международным эко стандартам? (Правильная утилизация отходов, использование альтернативной энергии, отсутствие пластика и т д)

(1) Да, абсолютно

(2) Скорее да, чем нет

(3) Нет, абсолютно

7) Готовы ли Вы сортировать свои отходы проживая в отеле? (Если отель предоставляет все условия для этого)

(1) Скорее да, чем нет

(2) Да, абсолютно

(3) Скорее нет, чем да

8) Будет ли Вам удобно если одноразовые шампуни будут представлены не в маленьких пластиковых бутылках, а в одном многоразовом дозаторе, который сотрудники наполняют по необходимости? (С целью сокращения использования пластика)

(1) Скорее да, чем нет

(2) Да, абсолютно

(3) Нет, считаю это не допустимо для отеля

9) Как думаете привлекут ли эко отели потенциальных местных/зарубежных туристов?

(1) Скорее да, чем нет

(2) Да, абсолютно

(3) Нет, это не повлияет

10) Как думаете через сколько времени отельный бизнес Казахстана начнет активно переходить на эко ресурсы и принципы?

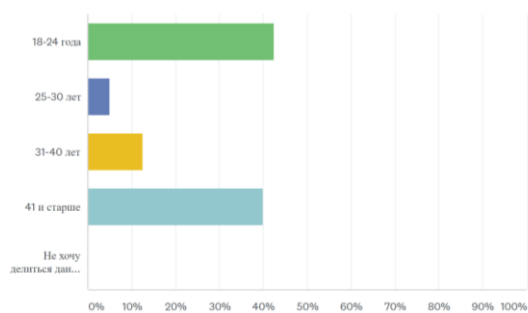
- (1) Ближайшие 3 года
- (2) Ближайшие 5 лет
- (3) Ближайшие 10 лет
- (4) Затрудняюсь ответить

### Результаты опроса:

Вопрос 1:

#### Ваш возраст

Answered: 40 Skipped: 0

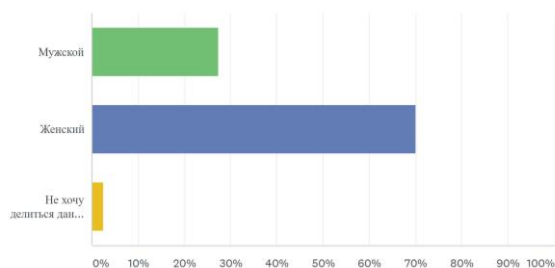


ANSWER CHOICES	RESPONSES	
▼ 18-24 года	42.50%	17
▼ 25-30 лет	5.00%	2
▼ 31-40 лет	12.50%	5
▼ 41 и старше	40.00%	16
▼ Не хочу делиться данной информацией	0.00%	0
<b>TOTAL</b>		<b>40</b>

Вопрос 2:

#### Ваш пол

Answered: 40 Skipped: 0



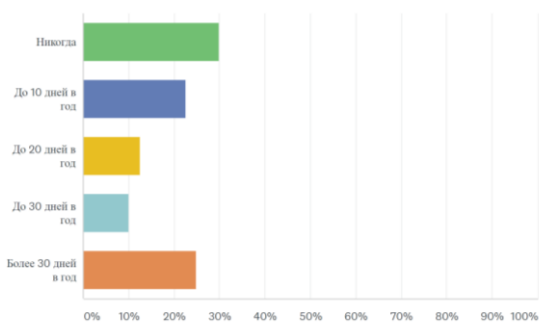
ANSWER CHOICES	RESPONSES	
▼ Мужской	27.50%	11
▼ Женский	70.00%	28
▼ Не хочу делиться данной информацией	2.50%	1
<b>TOTAL</b>		<b>40</b>



### Вопрос 3:

Как часто Вы проживаете в отелях в Казахстане?

Answered: 40 Skipped: 0

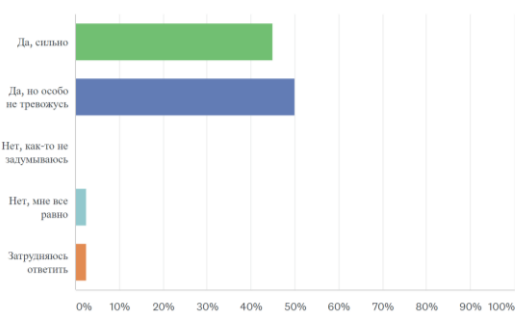


ANSWER CHOICES	RESPONSES	
▼ Никогда	30.00%	12
▼ До 10 дней в год	22.50%	9
▼ До 20 дней в год	12.50%	5
▼ До 30 дней в год	10.00%	4
▼ Более 30 дней в год	25.00%	10
<b>TOTAL</b>		<b>40</b>

### Вопрос 4:

Волнует ли Вас экологическая ситуация в нашей стране?

Answered: 40 Skipped: 0

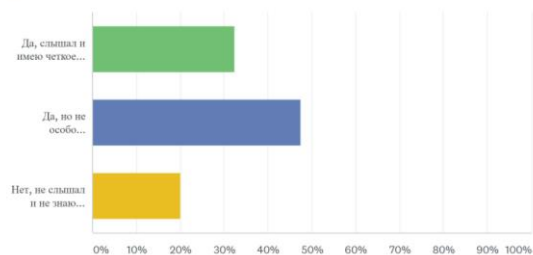


ANSWER CHOICES	RESPONSES	
▼ Да, сильно	45.00%	18
▼ Да, но особо не тревожусь	50.00%	20
▼ Нет, как-то не задумываюсь	0.00%	0
▼ Нет, мне все равно	2.50%	1
▼ Затрудняюсь ответить	2.50%	1
<b>TOTAL</b>		<b>40</b>

### Вопрос 5:

Знакомы ли Вы с зелёными технологиями в отельном бизнесе?  
(Например, источники альтернативной энергии, сортировка и эко  
утилизация отходов и т д)

Answered: 40 Skipped: 0

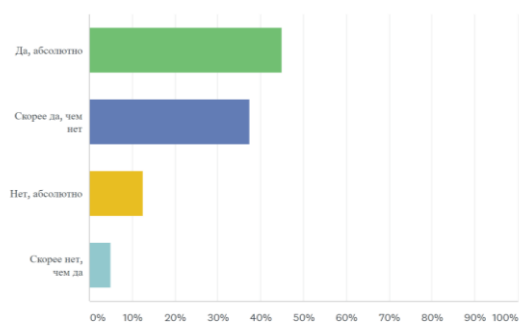


ANSWER CHOICES	RESPONSES
Да, слышал и имею четкое представление	32.50% 13
Да, но не особо ознакомлен (а)	47.50% 19
Нет, не слышал и не знаю совсем	20.00% 8
<b>TOTAL</b>	<b>40</b>

Вопрос 6:

При выборе отеля, повлияло бы на Ваше решение соответствие отеля  
международным эко стандартам? (Правильная утилизация отходов,  
использование альтернативной энергии, отсутствие пластика и т д)

Answered: 40 Skipped: 0

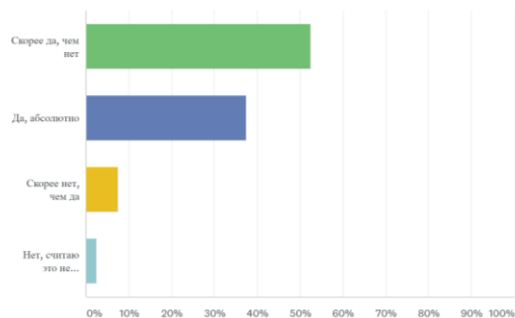


ANSWER CHOICES	RESPONSES
Да, абсолютно	45.00% 18
Скорее да, чем нет	37.50% 15
Нет, абсолютно	12.50% 5
Скорее нет, чем да	5.00% 2
<b>TOTAL</b>	<b>40</b>

Вопрос 7:

Готовы ли Вы сортировать свои отходы проживая в отеле? (Если отель предоставляет все условия для этого)

Answered: 40 Skipped: 0

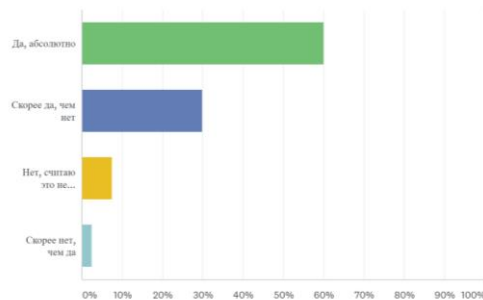


ANSWER CHOICES	RESPONSES
Скорее да, чем нет	52.50% 21
Да, абсолютно	37.50% 15
Скорее нет, чем да	7.50% 3
Нет, считаю это не допустимо для отеля	2.50% 1
<b>TOTAL</b>	<b>40</b>

Вопрос 8:

Будет ли Вам удобно если одноразовые шампуни будут представлены не в маленьких пластиковых бутылках, а в одном многоразовом дозаторе, который сотрудники наполняют по необходимости? (С целью сокращения использования пластика)

Answered: 40 Skipped: 0

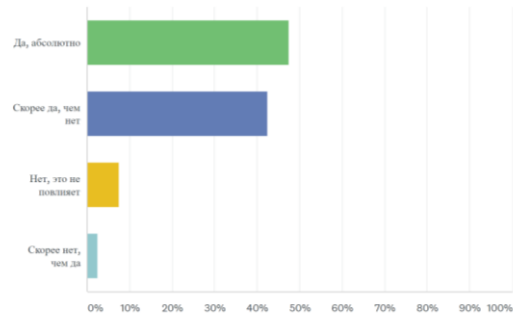


ANSWER CHOICES	RESPONSES
Да, абсолютно	60.00% 24
Скорее да, чем нет	30.00% 12
Нет, считаю это не допустимо для отеля	7.50% 3
Скорее нет, чем да	2.50% 1
<b>TOTAL</b>	<b>40</b>

Вопрос 9:

Как думаете привлекут ли эко отели потенциальных местных/зарубежных туристов?

Answered: 40 Skipped: 0

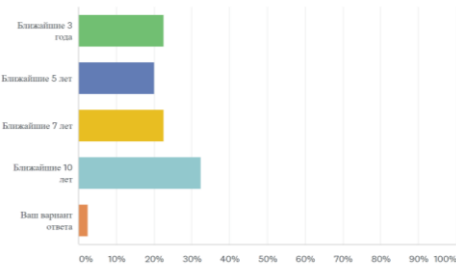


ANSWER CHOICES	RESPONSES
Да, абсолютно	47.50% 19
Скорее да, чем нет	42.50% 17
Нет, это не повлияет	7.50% 3
Скорее нет, чем да	2.50% 1
<b>TOTAL</b>	<b>40</b>

Вопрос 10:

Как думаете через сколько времени отельный бизнес Казахстана начнет активно переходить на эко ресурсы и принципы?

Answered: 40 Skipped: 0



ANSWER CHOICES	RESPONSES
Ближайшие 3 года	22.50% 9
Ближайшие 5 лет	20.00% 8
Ближайшие 7 лет	22.50% 9
Ближайшие 10 лет	32.50% 13
Ваш вариант ответа	2.50% 1
<b>TOTAL</b>	<b>40</b>

## 6.3 Photo portfolio





### Сенсорный смеситель Lemark LM4652C

**56 822 ₸**  
**51 139 ₸**


[Добавить в корзину](#)

[Оставить заявку](#)

**Коротко о товаре**  
 Код товара: LM4652C  
 Бренд: Lemark (Чехия)  
 Коллекция: Project  
 Цвет: Хром  
 Материал: Латунь  
 Термостат: Нет  
 Управление: Сенсорный  
 В комплекте: аэратор, гибкая подводка, крепления  
 Выдвижной излив: Нет  
 Длина излива: 119 мм  
 Высота смесителя: 172 мм  
 Донный клапан: Нет  
 Монтажные отверстия: Одно  
 Поворотный излив: Нет  
 Гарантия: 4 года

## 1.1 Reducing water consumption

Счетчик Меркурий 230 ART-01 PORSIDN (3ф 5-60А)



★★★★★ Меркурий

**36 000 тенге/шт**  
Нет в наличии

**Характеристики**  
 Количество фаз: 3  
 Тип счетчика: электронный  
 Класс точности: есть  
 Напряжение, В: 220/380

[Поделиться](#)

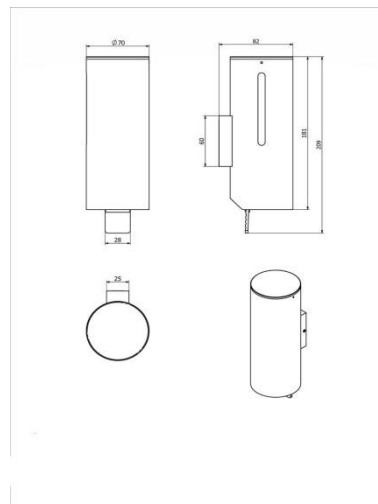
Цена действительна только для интернет-магазина и может отличаться от цен в розничных магазинах



## 1.2 Rational use of energy resources



## 2. Disposal of waste



6.2 Plastic waste



2.3 Batteries recycling