



# GTP RESEARCH AWARD 2014

TECHNOLOGY AND  
SUSTAINABILITY



**ADOPTING  
SUSTAINABLE  
PRACTICES  
WITH LOW COST  
STRATEGIES**

GTPP BRASIL

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# THANK YOU GTTP!



# GTTP

**THE GLOBAL TRAVEL & TOURISM PARTNERSHIP**

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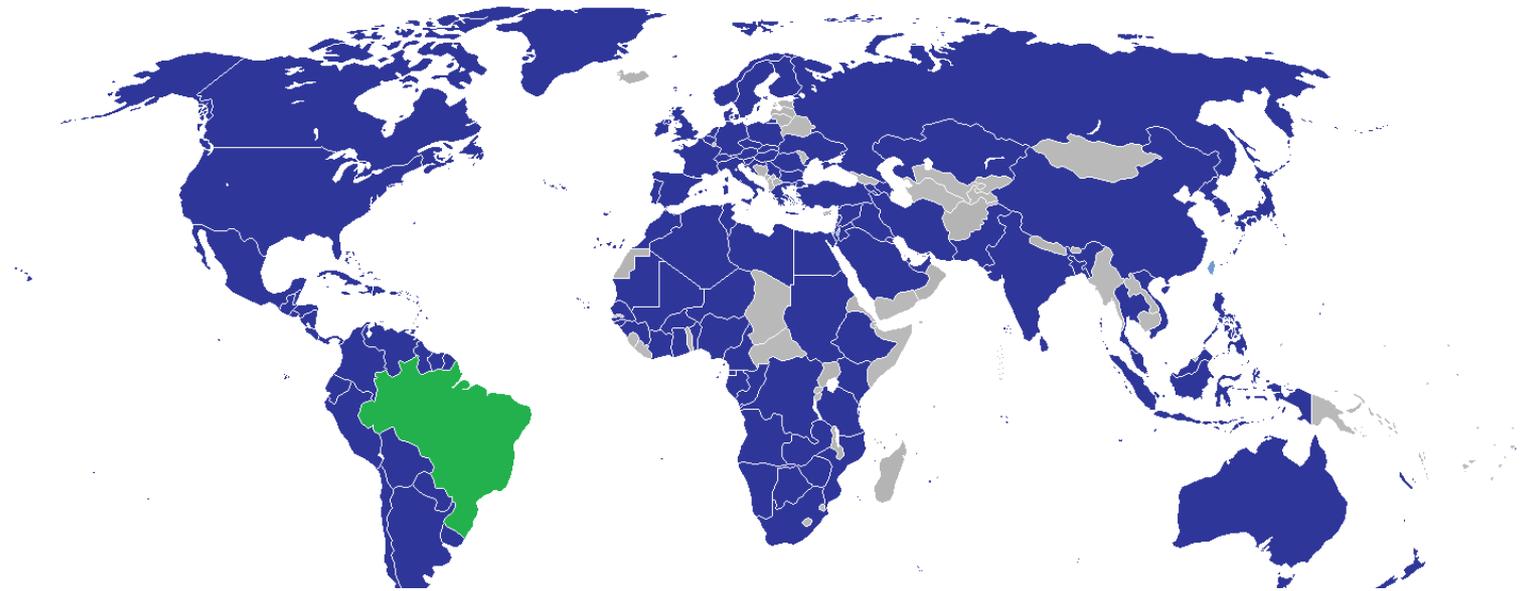
A BUSINESS AND EDUCATION ALLIANCE

# WHO WE ARE

- Alberto José Gomes de Oliveira Junior
  - 16 years old
  - Introduction to Hotel Management
- João Victor Bertaglia dos Santos
  - 16 years old
  - Introduction to Hotel Management



# WHERE WE ARE



Brazil welcomed 6 million foreign tourists in 2013, and is the main destination in South America and the second in Latin America.

# OLÍMPIA

- Small town (54 thousand inhabitants)
- Tourism-based economy
- One of the biggest water parks in Latin America;
- 50,000 tourists per day--almost equal to our population;
- There are some 8.5 thousand beds among the hotels, bed and breakfasts and second homes (most small enterprises)



# OLÍMPIA



# STARTING POINT

“The state of Sao Paulo is on the cusp of an unprecedented water crisis stemming in part from one of the worst droughts in decades, leaving millions scrambling to find clean water sources.”

([www.aljazeera.com](http://www.aljazeera.com))

# OUR QUESTIONS

- Should hotel owners reduce water use/consumption? Could they do it responsibly?
- Is it possible to reduce water consumption and electric energy used by guest showers? How difficult would that be?

# OUR QUESTIONS

- Is it possible to make guests aware of water saving procedures?
- Can sustainable technology be applied to guests' and employees' day-to-day practices in order to avoid high costs?

# WHY THIS RESEARCH?

- Environmental impact caused by water, food and electricity waste has forced grave consequences upon us;
- Awareness raising is needed;
- Olímpia is a city whose economy is based on water tourism.

# DIFFICULTIES

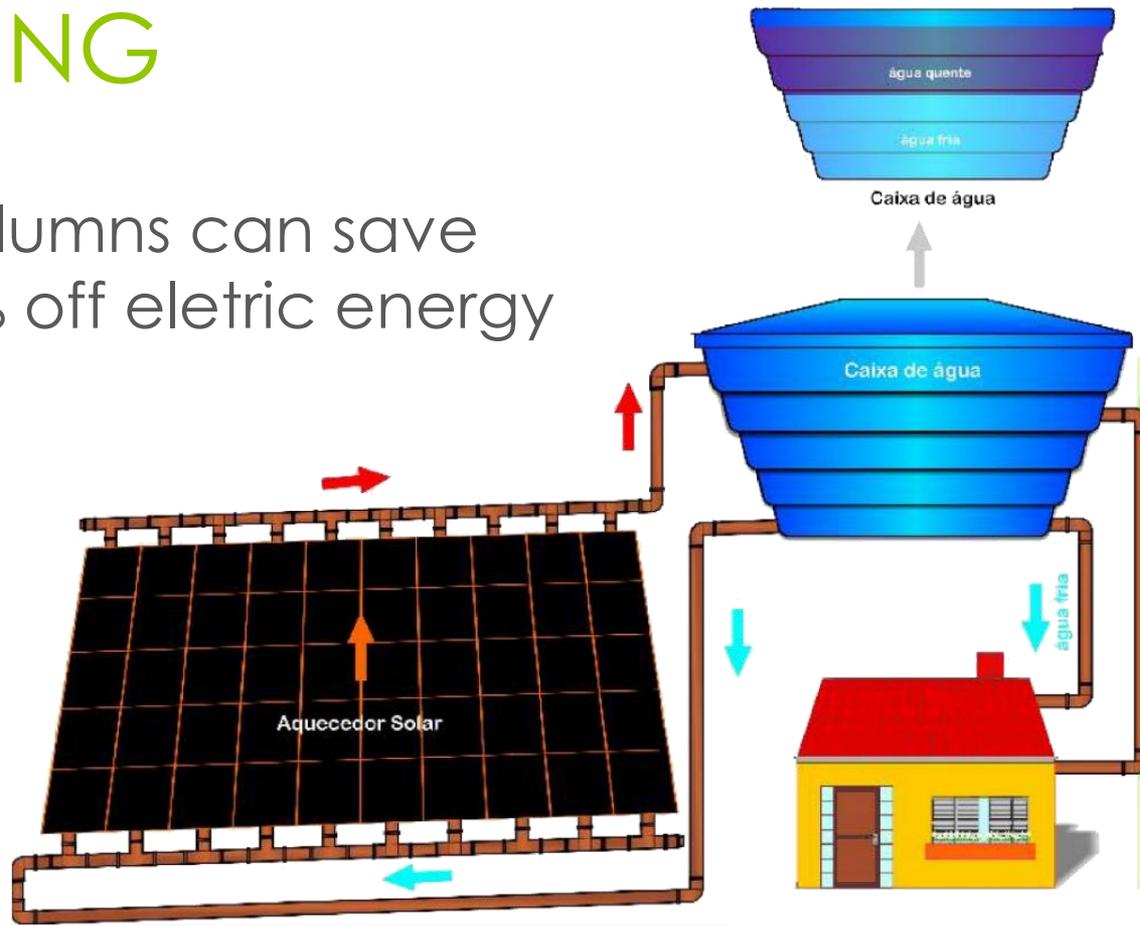
- Collecting information;
- Some information was not verifiable or precise;
- Planning and execution of the project took a long time.

# WHAT WE FOUND OUT

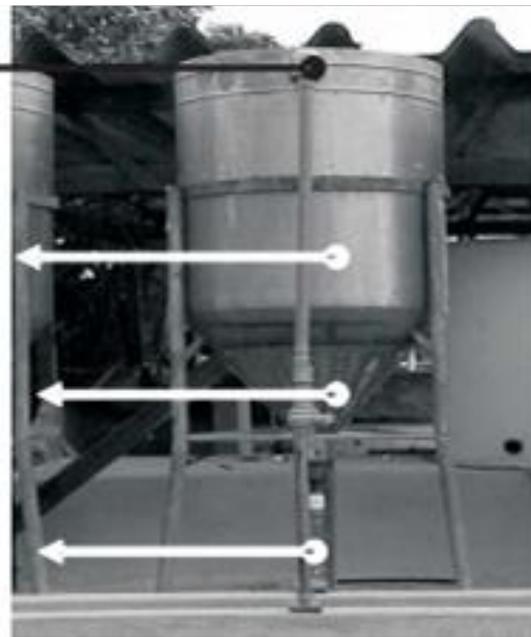
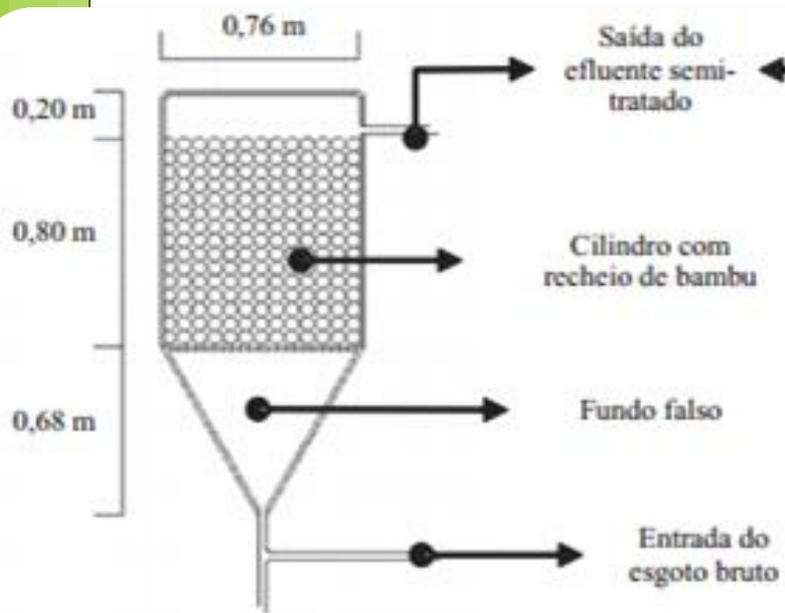
- The use of simple and very cheap technology can help small hotels to save water and reduce the energy consumption.

# PET BOTTLES FOR WATER HEATING

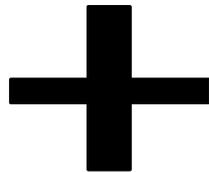
- Seven columns can save up to 30% off electric energy costs.



# SEPTIC TANK FILTER



# LED CHARGER made using MILK CARTONS



# WHAT WE HAVE LEARNED

- Team work and field work are important skills to develop
- Conservation is critical to successful business activity;
- Simple actions can generate great changes;
- Hotel management is not solely profit bound;
- Helping the environment benefits all involved (stakeholders)

# WHAT WE HAVE LEARNED

- The importance of public relations: We were interviewed by magazines, radio and TV channels about social responsibility and its importance to Olímpia, a city whose economy is based on water tourism.

# RECOMMENDATIONS

- Continue to share our findings with family, friends and colleagues so more people understand that we can help conserve precious water resources with simple steps.

**Adopting Sustainable  
Practices with Low Cost  
Strategies**



**Autho:** Alberto José Gomes de Oliveira Junior;  
João Victor Bertagia dos Santos.

**Professor:** Lutfi El Jamel Neto

**School:** ETEC de Olímpia

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## **PRESENTATION**

2014 has been a difficult year for many Brazilian cities, especially in São Paulo State, where we live. For reasons that range from lack of planning, mismanagement and abusive utilization of funds that times have been irresponsible, the state faces the biggest water supply crisis in its history. There are cities now where people most of the time have no water. Even after the wet season there are few signs that freshwater supplies will recover and make it possible to resume regular supply.

Even though the causes are natural, such as low rainfall, our concern was to understand whether it would be possible to reduce water consumption in activities where people do not feel responsible for water usage; for example in hotels and tourist destinations. Rainfall is bound to happen again at some time, but introducing responsible use of natural resources today may guarantee that the population will face fewer problems in the future.

We believe in small day-to-day changes that begin with one person, which are then adopted by a few people, and then by groups of people. We hope our ideas spread until many people put them into practice. If through our project we are able to raise awareness among small businesses owners in our hometown alone, our efforts will have been worth it.

## **ABOUT THE AUTHORS**

### **Alberto José Gomes de Oliveira Junior**

My name is Alberto José Gomes de Oliveira Junior. I am 16 years old, and I'm a student at ETEC Olímpia, where I am studying to be a Hosting Technician. With no background or experience in tourism and much less in technology, we started to develop ideas for our paper. With the support of teachers and friends we wrote our thoughts down on paper, and saw that it could be feasible to develop a case study about "do-able" sustainable practices in hotels, that besides helping the environment, could also contribute to the growth of entrepreneurs' businesses in the region.

I believe that our project can change the views of some entrepreneurs, and over time, of all entrepreneurs in the tourism field, as well as benefiting residents and businesses. The project aims to awaken the creative side of people on ways to create methods that improve sustainability. With the opportunity offered by the GTTP NGO, we could not only represent our school and our city, but also our country.

### **João Victor Bertagia da Silva**

My name is João Victor Bertagia da Silva. I am 16 years old, and I am taking the Hosting technical course at ETEC Olímpia. While thinking about the development of our paper, we began to have ideas about creating a case study that addressed practical ways to improve sustainability in the hotel industry, highlighting the importance of preserving those natural resources that human beings waste.

With our project, we hope can change business peoples' way of thinking of the hotel industry, help them see the importance of sustainability in hosting facilities, as well as the importance of preserving the environment. This opportunity was made possible by GTTP Brazil, giving us the opportunity to show our project to the world.

## **THE IMPORTANCE OF THE STUDY NOWADAYS**

Throughout our project, we analyzed the feasibility of making our ideas happen, since the theme is very important to our state and to our daily lives. The rational use of water has been a daily topic every day throughout our country because of the long time that we have been living without enough rain.

We have been working on demonstrating to small business owners, and the tourists who are their customers, the importance of a more rational use of water, and showing that we should not be waiting for state action, but rather start it ourselves. If we succeed in our first year in gaining the support of the major hotels in our city, others may end up supporting our ideas, as they will realize the positive impact that this study can cause in their daily lives. Our study will be at least gain the attention of the entire hotel network in Olímpia city.

## **DESCRIPTION OF CASE STUDY**

There are an estimated of 54 thousand inhabitants of the small town of Olímpia. This year the town has 8,400 beds available for visitors. Most are in small hotels and B&Bs.

Projections suggest that in the next 3 years available beds will increase to 25,000. That means that if we don't start organizing ourselves today, in a short time our city will no longer be able provide an adequate water supply to all our houses and businesses.

Are these projections both valid and useful for our local tourism industry? Yes they are: They provide information about the more rational use of our water and also our energy supply to our local business people; secondly, to visitors, and then to the residents of Olímpia.

From the beginning of this project we identified the following important questions: What is the reasoning behind our project? How was it developed? And what has changed in the way business owners think about the future since the

beginning of the drought? Are there new initiatives suggested in this study? Our focus is not only on tourists who come to Olímpia, but also tourism businesses and the people of Olímpia.

## **RESEARCH PROCESS AND DATA COLLECTION**

### **Preliminary research**

Our first step was to research newspapers and web sites: that provided a base of data about the state of São Paulo, and how it was suffering from a prolonged drought. Many cities do not have enough water.

Using that base of information we researched lodging businesses; the Tourism Direction organization; hotel associations, as well as the DAEMO(Superintendent of Water, Wastewater and Environmental) organization Olímpia. Through interviews with directors, biologists and chemists we also began to develop a solid foundation for our theory.

### **The research about tourists**

For visitor statistics, we were helped by Thermas dos Laranjais and the Olímpia Hotel Association which provided us with the number of tourists that visit the city for only a day, and those who stay longer. With these numbers we could calculate how many people consume water, electricity and food in the city every day.

### **The Internet research**

To complete our research, we returned to the Internet, this time expanding our research to obtain more accurate and current data about the topics covered in the study.

## **INTRODUCTION**

Tourism plays a role of great importance in the socioeconomic, cultural and political development in many regions of the world. However tourism has both positive and negative impacts. It is of paramount importance that it is developed in a

sustainable manner so as to minimize its negative impacts and maximize the positive.

The ABNT (Brazilian Association of Technical Standards) NBR 15401 regulation establishes “Seven Principles of Sustainable Tourism.” These include: respect existing legislation; ensure the rights of local people; preserve the natural environment and its biodiversity; keep in mind cultural heritage and local values; foster social development and affordable tourist destinations; ensure the quality of products, processes and services, establish planning and responsible management.

Thus, a sustainable tourism industry requires actions that are socially fair, economically viable and environmentally friendly; that meets society’s needs, and minimizes environmental impacts. The paramount priority is the development of public policy and the commitment of companies to support the development of a sustainable tourism industry.

The reality of tourism development in Brazil is that it is a crucial economic activity. According to EMBRATUR (Brazilian Tourism Institute), Brazil is the leading international tourism market in South America and the 6th largest in the world in terms of the number of international tourists. Tourism has a great impact on the Brazilian economy and is responsible for generating millions of direct and indirect jobs.

When considering the development model adopted by the industrialized countries and copied by developing countries, we highlight the risks of overuse of natural resources without considering the carrying capacity of ecosystems. We discuss also a mismatch between production and consumption patterns that require readjustment in order to achieve sustainability. It is human actions that influence the relationship between production and consumption; each depends on the other.

In the last two decades, our research showed an increase in the importance of socio-environmental interactions in our economy. There is increasing investment by businesses in incorporating socially inclusive and environmentally friendly practices

in their operations, illustrating the importance of new forms of production and consumption in creating a more responsible and sustainable society.

We also directed our research to the lodging industry, because of the important growth of tourism in our country, and hosting facilities being an essential component of its development. We identified the need to develop better sustainable actions and strategies with low implementation cost. The reason is growing wasteful practices, such as high electricity consumption; enormous volumes of water being wasted without recycling; the production of tons of organic waste beyond any acceptable level. Furthermore, by including sustainability in hospitality management, the sector generates jobs, providing social inclusion.

Aiming at encouraging the development of planned and sustainable tourism practices, this study presents easily feasible projects for lodging businesses. Our strategy is to convert solar energy into electrical energy; recycle water, and improve both waste management and the recycling of organic waste.

This study is being conducted in the city of Olímpia, situated in the northwest of the state of São Paulo, with estimated inhabitants of 53,010 by IBGE (Brazilian Institute of Statistics and Geography) in 2014. Currently it is officially designated as a Tourist Resort. The city became an important tourist center for the region. This growth, rapid and unexpected, happened in a disorganized manner, resulting in the misuse of natural resources in its lodging industry. Analyzing the major hotels in the city, we realized the need to implement sustainable strategies.

In this scenario, several questions prompted us to find a fast, effective and practical solution to try to alleviate the problem of the surging use of natural resources, for example:

- Is it important for business owners in the hospitality industry to ration water? And what measures could be taken to achieve a more conscious use?
- How to achieve savings in electricity and water used when people take showers or bath? How difficult would it be to implement these strategies?

- How could improved methods of waste management help both lodging facilities and the environment?
- What is the best strategy to educate guests about the importance of rational use of water and electricity?
- What is the importance of practicing sustainable actions today?

## 1. SUSTAINABLE TOURISM

The World Tourism Organization (WTO), whose mission is to promote sustainable tourism that is responsible and universally accessible as a way to encourage responsible development, defines Tourism as “activities that people perform during trips and stay in different places outside their usual environment for less than one year, for the purpose of leisure, business or others”.

The World Travel and Tourism Council (WTTC, its acronym in English) - released its annual study, “Travel and Tourism: Economic Impact”, with data collected from 184 countries, underscoring the importance of Brazil in the global tourism scene.

Brazil is the country with the highest level of growth in investments in the tourism sector in the world this year: 21.8%, while the world average is 5.7%. It is estimated that the sector attracted US\$ 52 billion in resources in 2013.

The impact of tourism on Brazil's economy is expected to reach 9.5% of GDP (US\$ 466.6 billion). This number is higher than the world average, which is 2.5%, according to the WTTC. The sector is expected to generate 8.9 million direct and indirect jobs, an increase of 4.5% compared to 2013. Worldwide, it is expected an increase of 2.5% over the previous year.

The WTTC report highlights that, for the year 2024, the impact of tourism in Brazil's economy is expected to reach 10.3% of GDP (£ 700 billion). It is also expected that in the same year, tourism will hire 10.6 million people in Brazil (9.7% of total).

Facing this reality, we must emphasize the need to develop environmentally conscious practices and to include social and environmental considerations in the management of any company or business in the tourism industry. Improving their operations and growing their businesses, as well as improving their financial results, will make them also agents of change in the marketplace.

Based on the seven principles of Sustainable Tourism (item 3 of ABNT NBR 15401) tourism should respect existing legislation; it should seek and encourage activities that reflect social and environmental responsibility, as well as economic

equity. All activities should reflect practices of minimal environmental impact, and the active monitoring of those impacts. Tourism must recognize and respect the cultural heritage of the region and contribute to its development; it should contribute to the strengthening of local economies and generate jobs and income.

Tourism should ensure the quality of products and processes; assess tourist satisfaction and checking --- if they are adopted --- proposed hygiene standards, information standards, and standards for safety and environmental education. Another important aspect, included in the Seven Principles of Sustainable Tourism, is that ethical business procedures should be established aimed at engaging the social, economic and environmental responsibility of all members of the tourism-related sector, leading to the commitment of its employees, vendors and tourist-customers to solving sustainability issues.

So, considering sustainability to be long-term resource conservation, it is up to the companies to ensure effective environmental preservation while minimizing environmental impacts caused by tourism. It is also up to the companies to cultivate among both employees and consumers an awareness of the importance of the development of sustainable practices.

## 2. HOSPITALITY

When it comes to tourism, the first word that comes to our mind is “hospitality,” due to the fact that it is one of the industry’s most important elements. The second concept is the great need to monitor the growth of the tourism market in our country, growth that is very visible in our economy.

Analyzing the history of the hospitality industry, it started in antiquity, with the spa towns installed by the Romans in Britain, Switzerland and the Middle East and in caravan stops; in the Middle Ages, monasteries welcomed guests, and there were shelters for pilgrims and crusaders. In 1790, spurred by the Industrial Revolution, there was the emergence of hotels in England, Continental Europe and the United States. In 1850, there were hotels concentrated close to railway stations and in 1870 there was the introduction of rooms with private bathrooms (apartments).

In 1920, a time of economic prosperity, there were large number of hotels being built in the United States and Europe. In 1950, there was a new surge in hotel construction, coinciding with the era of jets and the growth of world tourism.

In Brazil, the hotel business began in the colonial period; travelers were hosted in the big houses in the cities, in convents, on large farms, and especially in ranches along the road. In 1808, the arrival of the Portuguese royal court in Rio de Janeiro and the opening of ports led to an increased flow of people, which encouraged the opening of hostels in Rio de Janeiro.

In the early twentieth century, the governor of Rio de Janeiro created the Decree-Law No. 1,100, of December 23<sup>rd</sup>, 1907, which exempted for seven years taxes for the first five hotels that were established in the city. In 1908 the first major hotel was opened, called “o Avenida.” It had 220 apartments. In 1946, with the prohibition of gambling and the closing of casinos, many hotels closed their doors.

New growth came in the 60s and 70s, with the arrival of international hotel chains; the creation of Embratur (Brazilian Tourism Company) and Fungetur (General Tourism Fund), and the introduction of tax incentives, The 90s saw the next wave of international chains, who sought new investment opportunities in emerging markets,

such as Brazil, a period when the Gulf War was underway and an economic crisis in the US had began.

With competition from international chains entering the country with quality products and competitive low prices, the Brazilian hotel ends up being forced to invest in product improvement and also in dealing with a new customer demand profile, as guests and tourists have become increasingly demanding.

## **2.1 Hospitality in Olímpia – SP**

We conducted this study in the city of Olímpia, located in the northwest of the state of São Paulo, 430 km from the capital. Because of the great increase in recent years in visitors and the high growth of the local hospitality industry, the city received the official designation of being a “Tourist Resort” on July 3<sup>rd</sup>, 2014. This elevation to resort status should bring at least 3 million dollars per year to the municipality for investment in tourism development. This money is provided by the state government and must be invested exclusively in the tourism sector, on projects such as building city gates, improving street lighting, rebuilding older tourist attractions, paving access roads to the city and its attractions, among other projects.

According to the Olimpiense Association of Hotels, Bars and Restaurants, there are approximately 62 active Hospitality Facilities in Olímpia, and among them 17 hotels, 39 inns, four farm hotels and two Resorts. It is estimated that over the next three years there will be opened approximately 15,000 hotel beds, in large enterprises that are already being built. There are also about 230 “season houses” that are constantly rented by tourists for the period of their stay in the city.

According to the Department of Tourism of Olímpia, there are 8,720 beds in hotels in the city now. The occupancy rates in low season is around 60% to 65%, and from 70% to 75 % in high season.

In an estimate from the Olímpia Superintendent of Water, Wastewater and Environmental (DAEMO), a hotel with approximately 40UHs (housing units) and 160

beds, generates a monthly consumption of approximately 408,000 liters of water, and each bed consumes on average 2,550 liters of water per month and about 85 liters per day.

Taking into account the total number of beds and the hotel occupancy rate in Olímpia, DAEMO estimated that the average water consumption per bed is about 750,000 gallons per day. Taking into account this same estimate for a month, the number reaches 22.5 million liters of water.

### **3. CASE STUDY: SUSTAINABLE HOTEL**

Currently we face serious consequences resulting from wasting water, electric power and food.

Water is a precious commodity for humans, an essential natural resource and a component of all living beings. Its waste is already affecting the ecosystems. We draw attention to the tourism sector, where tourists, once they are in a moment of rest, end up increasing water-wastage by, for example, taking longer baths or showers.

It is known that many problems related to uncontrolled water usage could be resolved with simple measures, such as brushing the teeth with a glass of water (300 ml spending) rather than using the faucet (spending 2.4 liters per minute); reducing bath/shower time from 15 minutes to 7 minutes, thereby saving 55 water liters, or fixing dripping faucets, noting that they waste up to 46 liters per day or 1380 liters per month.

The process of water filtration called “Sump Filtration” presented in this study constitutes an alternative to solving the problem described above. We propose the reuse of water from showers, sinks, outdoor areas as pool and cleaning departments. Using this process, water would go through pipes to a storage tank, then pumped to the “sump filter”. Only water from sanitary flushing would not be reused, going through pipes that go straight to the sewer.

In the sump filter the water undergoes a purification process in an anaerobic filter constructed in glass fiber cylindrical boxes and filled with bamboo filling. After going through pipes, it is transferred to another filter, called a “sand filter”, consisting of a distribution plate, sand bed, supporting layer of gravel and an aeration layer with gravel, resulting in purified water output through a final pipe. Besides conserving water, this procedure reduces expenses for a hotel.

One can also suggest water savings through the implementation of “smart facets,” which are mechanically actuated by hand pressure. There is a lever beneath the facet, inside the sink vat, and it is pushed by the person’s own hands when they are

being washed. Thus, by the end of the process, the pressure is shut, and the water stops being released.

Another problem encountered is excessive electricity expenditure. In hotels the guest often ends up leaving the lights on, the TV and the air conditioning running, all of which result in high consumption. The air conditioner is 2% to 5% of the electricity bill; the light lamps represent 15% to 25%, television 10% to 15% and the refrigerator 25% to 30%.

The electric shower, for example, besides wasting a lot of water - 8.4 liters per minute – also creates high electricity consumption; a model of 4500 Watts has an average cost of 72 kWh / month and 5,500 Watts model has an average cost of 88 kWh / month, and it is considered the appliance that consumes the most electricity, accounting from 25 to 35% of the bill.

Another action that can be adopted is to heat the water through a panel of “PET” bottles, which when painted with a heat absorbing matt black color, then cut and glued, are then applied to the pipe that brings clean water to the shower system, forming a recyclable solar heating panel. It is cheap and easy to fabricate. It can mobilize support from staff and the community as a sustainable idea accessible to all.

Another way to save electricity is to use solar panels that can be constructed with recyclable materials to reduce costs. The panel is made with opened and glued milk cartons with the laminated side facing the external side, where LEDs would be coupled to absorb the sunlight, with each LED producing 1.5 volts of power. A panel like this made on a large scale would generate a lot of energy for the hotel, and in that energy could be stored.

We can also draw the guests and employees’ attention to electricity conservation in a simple way, by pasting stickers on switches and other relevant places, with creative reminders, such as “turn off the light when leaving the room”, “save water” and “avoid waste”.

Another action to be taken is the production of wind energy, thus using a natural element. Wind power can generate high production costs; however, we suggest a

way to produce it with recyclables. The idea requires barrels made of iron (for example, oil barrels) cut in half. The two ends are then reversed and welded to each other. These barrels would be placed on a wooden base sustained by two iron columns each approximately three meters tall, and four steel cables. The wind would spin this engine, producing energy that, with the proper wiring, would be captured and stored with the solar energy.

Another issue addressed by the study is food waste, since one third of all food produced worldwide is lost or wasted in the production or consumption cycle. The amount of food wasted reaches 300 million tons per year, which is enough to feed about 900 million people worldwide.

The loss of food in Latin America is 80 million tons per year, about 6% of the overall total losses, and divided as follows: 22% of waste occurring during the phases of storage, 16% for the during distribution and marketing, and 6% during processing. Statistics show 46% of solid garbage from a hotel is related to food consumption.

In hotels, waste can occur at all meals during conferences and lectures. For example, at the coffee break, a lot of food ends up being wasted, often because more is served than is wanted.

All uneaten food is discarded, but could be reused. It could be used as organic fertilizer in green parts of the hotel or to help create a vegetable garden. Thus, it would be possible to grow various types of vegetables or grains without the use of pesticides, reducing waste and increasing meal quality.

We observe a high consumption of soft drinks, juices, sweets and other processed products with recyclable packaging, which are often discarded in the trash without reuse, attacking the environment with long-delay decomposition. The management of waste is fundamental to any kind of enterprise: it leads to reduced production of waste by attacking wasteful habits, and the reusing of materials such as boxes and packaging, which when recycled are transformed into new products.

When considering the recycling process, the ideal would be implementing a system of separation of garbage into six categories (paper and cardboard, plastic,

metal, glass, organic waste and general non-recyclable waste). In the meantime recycling just two categories, organic and inorganic waste, would be a big step toward implementation.

Organic or “wet” waste is all waste that is animal or vegetable origin and is considered highly polluting. The inorganic or “dry” waste material includes all substances of non-biological origin that has been produced by human means, such as plastics, metals, aluminum and glass. Glass, when thrown directly into the environment without prior treatment takes a long time to decompose. This highlights the importance of waste separation in the production of organic fertilizer production, as already mentioned. The inorganic would be sent for recycling to cooperatives, and the profit would revert back to the hotel itself, in the form of benefits for employees.

#### **4. FINAL CONSIDERATIONS**

This case study proposes the introduction of simple practices that can make hotels more sustainable, as a result of the growing need to implement strategies that promote the production, processing and consumption of natural resources with minimal environmental impact.

Given the current situation facing the world and Brazil regarding our most valuable good --- water --- there is no doubt that good water management is essential and will play a fundamental role in the survival of lodging and other businesses. Water management will be a competitive business factor. Most problems related to waste of water could be solved through simple measures, indicated earlier, such as brushing your teeth with a glass of water (300 ml) instead of using an open tap (2.4 L a minute), reducing shower time from 15 minutes to 7 minutes, saving 55 liters of water, or fix dripping taps, which can waste 46 L a day or 1380 L a month.

The process of water filtering called “Sump Filter”, presented earlier in this study, consists of an alternative to solve the problem discussed above. We propose that water from showers, sinks, external areas such as swimming pools and cleaning departments are reused. Another interesting process is heating water using “PET” bottles, that are colored in matt black, then cut up and glued, and applied over pipes leading to showers in order to make a recyclable solar panel. It is cheap, easy to make, and could gain the support of employees and the community for what is a sustainable and accessible idea. Using solar panels that can be built from recycled material to reduce costs can also save energy. We should not forget about getting the attention of guests and employees through simple measures including placing stickers on switches and other relevant places, each with creative reminders such as “turn off the lights when you leave”, “save water” and “avoid waste”.

This study has also looked at food waste – 1/3 of all the food produced globally is lost or wasted along the consumption cycle, reaching 300 million tons a year all over the world.

When it comes to hotel chains, 46% of solid waste is related to food. In hotels, there can be waste in every meal. During conferences and speeches coffee breaks are very often sources of waste if more food is provided than people want. All food

not eaten is thrown away, but could be reused as organic fertilizer in green areas or for growing a home garden. Therefore, it is possible to grow a range of organic vegetables and grains, reducing waste and increasing the quality of meals.

Waste management is crucial in every type of enterprise; it leads to a decrease in garbage production by fighting misuse and reusing materials such as boxes and packaging, that when recycled become new products. In the recycling process, it would be ideal to implement a garbage separation system in six categories (paper and carton, plastic, glass, metal, organic waste and non-recyclable general waste). However a big step forward would be even using just two categories, organic and inorganic.

We know that raising the awareness of guests about the rational use of water and electricity, is very different from raising the awareness of someone who lives in a condominium. Guests are usually enjoying a service to which they are not used. Their consumption of water is exaggerated and unsustainable, for guests do not think about the consequences of their actions on the environment and on themselves. It is very interesting that employees know about the importance of local environmental preservation. It makes them amenable to changing their practices, attitudes and actions. The receptionist, for instance, can let the guest know during check-in that there is a program of towel use, and the guest can express their preference, which means they can choose whether or not the towels will be replaced daily. For every ten towels not washed each day, an amount of money would be donated to an NGO. Another interesting action would be "Let's turn off the lights for 1 hour". A hotel chain can, for example, propose this action by advertising it on social media, websites and other channels. They could suggest that at a specific day and time clients and employees could turn off the lights for one hour. This is a small example, but it could reach guests and employees and encourage them to do something and be part of an action that aims at raising awareness on the use and saving of electricity.

Nowadays sustainable practices can and should be adopted as a first step in our small day-to-day activities, as an example to the one who looks at us and observes our actions – we could be talking about an employee or a child. Many people mirror what they admire in others, so these small actions are extremely important and meaningful for each and every one of us. We know that one of the principles of

sustainability is to use our natural resources in a way that does not undermine future generations. Small actions can touch people and change them.

By adopting simple measures, such as the suggestions presented here, we can achieve great socio-environmental benefits, create more jobs, reduce operational costs and lead companies to develop an attitude of social responsibility.

In this context, we are surrounded by an ever-changing market place, where sustainability has become a differentiating factor. We hope that entrepreneurs of the tourism sector become aware of sustainable strategies and values, and adopt them.

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