Contest of Fresh Ideas: Tourism systems for a sustainable future

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1. Sustainable tourism in the future

There is no doubt that the importance of a sustainable approach to tourism will grow in the future, with more and more consumers and businesses acting and travelling responsible. Since the tourism industry is a fast-growing industry with a big impact on economic, social and environmental aspects, it is essential to act sustainable and to use resources in a sustainable manner.

The increased volume of tourism not only contributes to resource scarcity and increased CO₂ emissions but also leaves traces directly in the destinations. They are increasingly suffering from congestion and a disturbed balance of the nature.

A special challenge for destinations is the amount of day tourists, who spend only one day in areas in large numbers. In contrast to overnight visitors, considerably less money is spent, yet resources are used to the same extent and visitor frequency to attractions is greatly increased.

In order to be able to experience tourism in the future as well, a solution needs to be found how tourism can be transformed into an ecological more sustainable phenomenon. In this context, the focus of this work lays on day tourism and therefore this paper deals with the question:

How can sustainable day trips look like in the future?

The aim of the prototype is to use tourism as an instrument to improve economic and social aspects in destinations which are frequently seek by daytrip tourists, while taking ecological aspects into account.

2. Day trips in Munich surrounding area

In 2020, when overnight trips were hardly possible due to Corona, day trips have increased in popularity.¹ This increase in visitors poses some challenges for infrastructure, tourism service providers and residents in destinations. The visitor pressure that occurs at tourist attraction points of the destinations can affect the experience of tourists as well as the residents themselves.

In Germany, Bavaria is considered as one of the most important source regions for day tourism. In addition to popular destinations such as Munich or Nuremberg, the majority of day tourists are drawn to rural areas.² Due to the general restrictions caused by the Corona pandemic, the closure of attractions and sights, as well as the cancellation of events, have made outdoor activities such as hiking, climbing or mountain biking more popular in this year than they already were before. Figure 1 shows the decrease/increase of day tourism activities compared to a normal year in the past.



Figure 1: Activities of day tourists in 2020 compared to a normal year Source: own illustration based on https://www.dwif.de/news/item/corona-kompass-tagesreisenmonitorhalbjahr.html

¹ cf. Mederle, 2020

² cf. ibid

Munich's surrounding area in particular has been struggling for years with the large crowds of tourists, since the districts in the southern area of Munich close to the Bavarian alps are popular destinations for outdoor activities.³ In addition to the usual overnight guests, tourist highlights are also frequented by locals.

The high number of tourists travels mostly by car.⁴ The consequences are often the congestion of the local traffic, as well as a high emission of pollutants, which causes great ecological problems. Wild camping, illegal parking and the rubbish left behind by inconsiderate visitors, are also a major burden on the environment.

However, day tourism not only causes ecological problems, but also leaves problems in the socio-cultural and economic fields. The locals often feel disturbed by the masses of tourists and see themselves harassed in their own homeland. Considering the third dimension of sustainability, the economic benefits of day tourists are lower than those of overnight tourists. Day tourists have no accommodation costs and lower expenses, as there is hardly any time to spend money locally due to the short length of stay in the destination. In addition, they naturally do not pay any visitor's tax, which is used to compensate the increased budgetary expenditure for the maintenance of the municipalities.⁵

The consideration of day trip traffic from the Munich surrounding area reveals the dilemma for the destinations, especially in the districts of the southern area close to the mountains. The current and future increasing burdens due to the day tourists are at the same time offset by the great importance of day tourism for many businesses in the gastronomy and retail sectors.

In order to relieve the tense situation in destinations and to act sustainably along the entire value chain, the concept of a sustainable mountain hostel *the green mountain hostel* can be a possible solution.

³ cf. Bengsch 2020, p.27

⁴ cf. Mederle, 2020

⁵ cf. IHK, 2016, p.19-22

3. The concept of the green mountain hostel

With the help of the design thinking approach the idea of a sustainable hostel for nature enthusiast, that is more than just a place to sleep, was created. Design thinking is promoting creativity and encourages free work. Different creative methods in the design thinking process have led to the result of this prototype.

To reduce the number of day trips in Bavaria, which are not sustainable due to travelling by car and the short duration of stay, *the green mountain hostel* should convince tourists to stay at least one night in the mountains. Instead of a busy day with a lot of traffic jam, the hostel gives the guest the opportunity to experience the silence in the mountain valleys as soon as the day tourists left.

The concept of *the green mountain hostel* contains three key elements: sustainability, closeness to nature and simplicity. In the following lines the concept will be explained.

3.1 Features of the green mountain hostel

The hostel should be located in a small village in a mountain valley up to two hours away from Munich. The criteria for the location are the accessibility, preferably by public transport and the nature of the place: silent, traditional and surrounded by nature. One aim in the future would be a cooperation with transportation companies to enable a simple ecological friendly travel to the hostel. Figure 2 shows possible locations to place the hostel in the Bavarian alps, for example Jachenau, Wildbad Kreuth, in the Eng or Mittenwald. In the future a network of many sustainable mountain hostel at different locations is aimed to achieve.



Figure 2: Possible locations for the green mountain hostel Source: own illustration based on Google Maps

The green mountain hostel offers guests a cheap accommodation in the mountains. Typical for a hostel, most of the rooms are dorms, but there should be some double rooms available as well. The bathrooms with showers are on the floor. The core of the hostel is the lounge and a shared kitchen.

The open kitchen allows guests to cook their own meal and enable a cheap stay for the weekend. It is planned to offer packages for breakfast, lunch or dinner, which are filled with regional groceries and a recipe and can be purchased by guests who do not want to cook. To bring more fresh ingredients in the kitchen, the hostel has a small vegetable and herb garden. In the backyard the guests can find fruit trees, like apple trees or plum trees and beehives, that are tended by the hostel. A small shop with regional products can be found in the hostel to support the local businesses.

The lounge is the place to get in touch with other guests and to share information about hiking tours and other experiences. Beside this, there will be regular events with different topics, like sustainability, information about the region or workshops with doit-yourself projects. One important aspect of the concept is that the hostel is a meeting point for guests and habitants. The events are open for everyone and the lounge can be used by the municipality as well. The residents are welcomed to bring own ideas and events to the hostel. Another feature of the hostel is a digital infopoint of the local tourist information in the lobby. In addition, the staff can help with information about activities around the hostel, like hiking, skiing or cycling. As an extra service the hostel offers a repair station for minor repairs on the bike or skis. It will also be possible to rent equipment, for example to try new sports. The hostel wants to support the concepts of sharing economy and repairing mentality.

Hotels and private accommodations can already be found in the mountain regions, therefore *the green mountain hostel* needs to be different from other accommodations. Due to the fact, that most of the accommodations are only bookable for longer stays and the booking is often complicated, one advantage of *the green mountain hostel* is the easy online booking of a bed, which is also possible for a one-night stay. Beside this, guests can cook in the hostel for themselves and do not need to go to a restaurant. With the lounge, as a central point of the hostel, guests have the possibility to interact with other guests or habitants. The main idea of the hostel is that it is more than just a place to sleep.

The construction of a new accommodation has always a huge impact on the environment. Therefore, the hostel should be built as environmentally friendly as possible. The materials for the construction should be regional and mostly local companies are integrated. The hostel is to be built as a passive house, to reduce the emissions caused by heating. If it is possible, the roof should be grass-covered and the façade covered with plants. Inside the hostel, the concept follows the cradle-to-cradle principle. The furniture for example should be made out of materials, which are left from the construction and old furniture should be upcycled.

The aim of the hostel is to reduce the use of resources. Solar panels on the roof produce energy for the electricity, if more energy is necessary the rest is powered by green electricity. The toilet flush is working with collected rainwater and a water saving button helps to reduce the use of water as well. Waste heat from kitchen appliances, are used for heating the drying room and ski cellar.

As mentioned above the offered products should be local, preferably seasonal and the meal packages vegetarian or vegan.

Another aspect to be ecological friendly is the reduction of trash. Therefore, the hostel offers possibilities to recycle. Especially in the kitchen guests will find different bins for trash and for organic waste a compost outside is provided. The meal packages offered use as less packaging as possible.



Figure 3: The green mountain hostel sketch Source: own illustration

These are all small points which are helping to be more sustainable and many more will follow over the time.

3.2 Business model

The green mountain hostel is oriented towards the social entrepreneurship business model after Muhammad Yunus. The business idea does not primarily aim to maximize profits, but rather to create added value at a local level and reduce social and ecological problems. In this context, the concept contributes directly and indirectly to the achievement of the sustainable development goals within the Agenda 2030.

The guiding idea of the prototype is to bring people together: locals and tourists. Beside the possibility to stay for the night in the mountains, the hostel should be a meeting place, filled with a lot of events and interaction. On top, the hostel is providing jobs with a fair payment. Due to the fact, that the hostel is working together with local companies during the construction, but also for the supply of local products for the shop, it has an impact on the added value of the regions. Beside this, it is supposed be created and run together with the community, based on the idea of co-creation. The concept is open for cooperation with facilities, with an educational or social background. The advantages for the municipalities are increased opportunities for employment and income generation.

The cost structure is based on a value-driven approach. At the beginning, approx. 1.500.000 EUR for construction work are calculated. It is planned to work closely with the local population and employ craftsmen from the region to ensure local value creation.

After the completion of the construction phase the fixed costs are kept to a minimum. A budget for marketing, personal, running costs and materials must also be provided and is calculated with 782.364.000 EUR per annum (for detailed information please see the budget plan in the appendix).

After opening, the main revenue streams will come from overnight stays, as well as additional income from the sale of regional products and bedding rental.

The price for guests for an overnight stay is depending on the room type. The average price per bed is 22 EUR. Together with the other two sources of revenue a turnover of 943.890.000 EUR per year is targeted. The annual profit to cover the construction costs is therefore 141.739 EUR.

The main target group are young adults aged 20-35, couples and small groups of friends who are interested in nature and want to make a difference with an awareness of sustainability. During the week, the hostel is also well suited for school classes to become familiar with the topic of sustainability and to creatively first gain points of contact.

In order to implement the theory in reality, the next step would be a test phase. The defined target group and the local population should be interviewed, and feedback obtained. In addition, a benchmarking process and a market analysis would be useful to uncover deficits and enable successful implementation.

4. Consideration for further steps

The concept of the hostel only works if potential guests and the inhabitants are realizing the advantages of the prototype. Therefore, there are still open questions concerning the concept. One question is, if the people are willed to pay more for a sustainable accommodation and if *the green mountain hostel* is an alternative to other accommodations with the same price. In addition, it would be interesting, if people who plan to make a day trip see the hostel and the possibility to stay overnight as a better option to experience a more relaxed and sustainable time in the mountains. The goal is not just to be another accommodation in the mountains, but to convince the people to reduce the number of day trips, to get in touch with the locals and to experience the mountains without a rush. For a successful realization of the concept, the habitants of the mountain valleys need to stand behind it. A successful implementation is only given with the cooperation of the residents and the willingness to use the hostel as a meeting site.

The prototype can be seen as a contribution to the future of tourism which contains the three dimensions of sustainability and making sustainability tangible and creates awareness among the guests of *the green mountain hostel*.

5. References

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6. Appendix

6.1 Business Model Canvas

- Income from overnight stay, sale of products Price per bed 22 EUR . .
- Construction, employees, ongoing fixed costs, marketing (especially at the beginning), certification, licences, brand foundation, business tax, visitor's tax Value orientation, cost-covering Reinvest profits
 - .

6.2 Financial plan

Expenditures

construction cost	construction costs including interior				1.500.000,00 €	
running expenses	S		daily	annual		sources
staff costs	full-time staff: reception, accounting, cleaning, all-rounder	υ				
_	average hourly wage	14 €				
			560 €	204.400,00€		
material costs	cleaning utensils, office supplies, garden tools			10.000,00 €		
operating costs	water costs per guest	2,80 €	294,00 E	107.310,00 €		http://www.dehoga- nordrhein.de/files/nordrhein/Umweitbroschuere_DEHOGA_Oktober_20 16.pdf, https://www.ahgz.de/zulieferer/news/jeder-tropfen-wasser- zaehh-221481
	energy in kwh (heating, light, kitchen appliances) per guest	Ģ	945.00 €	342 279 00 E		https://www.krist.com/glossar/kilowatt-peak32.php, http://www.dehoga- nordrhein.de/files/nordrhein/Umweitbroschuere_DEHOGA_Oktober_20 16.pdf, https://www.bmwi.de/Redaktion/DE/Artike/Energie/strompreise- bestandrelle.html
	savings through output of own photovoltake system with 42 modules in kwh per year	8820				https://www.krist.com/glossar/kilowatt-peak 32.php
	costs per kwh green electricity	0,30 €				https://www.greenpeace-energy.de/privatkunden/oekostrom/tarif- oekostrom-aktiv.html
	waste per week in litres	5001		1.000,00 €		http://www.dehoga- nordthein.de/files/nordthein/Umweltbroschuere_DEHOGA_Oktober_20 16.pdf
	rental costs linen rental and cleaning per linen set	1,50€	75,00 €	27.375,00 €		https://www.waescherel-suche.de/kalkulation-von-mietwaesche- kosten.html
marketing				70.000,00 €		
acquisition costs	hardware and software, operating and office equipment			20.000,00 €		
sum				782.364,00 €		
	-					

Revenues

revenue		daily	annual	comment
beds in total	150			
average capacity	70%			
revenue from overnight stays:		2.310,00€	843.150,00 €	
overnight stays daily		105	38325	
average price depending on room category,				
excluding tourist tax	22,00€			
income through food boxes for breakfast, snack				
and dinner:		21,00€	7.665,00€	
				The price of the boxes is mad
				up of the purchase cost of the
profit per box on average:	0,70€			food and the profit per box
boxes sold daily	30			
				It is possible to bring your ow
income from bed linen rentals		150,00€	54.750,00€	
income in on Deu intern entais		130,00 €	34.730,00 €	Ded milett
bed linen costs	3,00€			
bed linen rental daily	500€			
or a mention daily				
sum			943.890,00 €	
24111			545.650,00€	

Profit statement

profit before taxes				161.526,00€
business tax				19.786,94€
assessment rate	350%			
profit after taxes				141.739,07
profit to cover				
construction costs				141.739,07
amortisation period	10,58282697	approx. 11 years		