

2024

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# **Weather extremes, tourist demand responses, climate change: the way forward**

Aiming for Net Positive

**Stefan Gössling**

*Research Professor at the School of Business and Economics, Linnaeus University*

## Synopsis

In his article, Stefan Gössling discusses the societal polarization regarding climate change action and advises hoteliers to invest in sustainable practices, citing a majority's support for climate action. Furthermore, it argues that decarbonizing business operations is economically viable and essential, with examples like solar power being cost-effective and energy-efficient. Providing further guidance the article concludes with a practical to-do-list.

Climate change is no longer in the future. Wildfires, floods, heatwaves – hoteliers all over the world have fought with the implications of extreme weather situations in the summer of 2023. Many will have realized their vulnerability – infrastructure, after all, cannot be moved.

Demand, unfortunately, can. Tourists are the most flexible in the system. One major question for the future is thus how tourist responses will be affected by expectations of uncertainty: for decades, 'climate' has been one of the major determinants of destination choice. Long-term average conditions – the climate – may soon no longer be a good indicator of what to expect in a destination. Actual weather conditions will become far more relevant for travel decisions. This creates additional uncertainties for tourism that are not in the industry's interest.

In this already complex situation, many hoteliers will also have noted that there appears to be an ongoing polarization in society. Proponents of action on climate change seem increasingly pitted against those arguing against. The implications for hotel management may seem unclear: should I invest in sustainability, 'going green'?

At least there is an easy answer to this one: Yes. Society is polarized, but only in the margins of opinion. There is much stability still in the center, with a large majority of European citizens being convinced that more should be done to limit climate change. Few question climate change altogether. The conclusion must be this: Reduce emissions where you can - and talk about it.

Isn't decarbonization of a business too costly, though? The short answer is no, for two reasons: hotels can reduce emissions at a negligible and often negative cost; and any reduction in energy use is also a way of making a business more resilient – to changes in energy prices, carbon taxes, or dependence on power suppliers. Also bear in mind the cost of insurance that will make tourism much more expensive in the future.

There is much to say about dealing with emissions. In a recent paper, we have investigated progress on emission reductions among the largest hotel chains in the world. Together, these 20 chains account for 20% of all rooms, 12% of global emissions from accommodation, and 21% of the revenue. We found emission intensities (in kg CO<sub>2</sub>e per US\$) of about 0.22 kg CO<sub>2</sub>e per US\$ in 2019. More importantly, we found that emissions per US\$ varied by no less than a factor 100 between chains, from 0.01 kg CO<sub>2</sub>e to 1.04 kg CO<sub>2</sub>e per US\$. While part of the difference between chains can be explained with acquisitions, sales, hotel types (city, resort, casino) or franchises, it seems clear that the use of renewable power or

measures reducing energy consumption can hugely improve ratios. Take geothermal cooling, for example, a measure that can bring down electricity use for A/C by more than 90%.

The fact is also that solar power is now the cheapest form of electricity, at a generation cost of just US\$0.06 per kWh. With the cost of energy being in the order of 3-6% of turnover for many hotels, the argument can no longer be ignored: To not invest in solar is now equivalent to being economically stupid. An added benefit is that solar systems have been in use for decades, and turned out to be very reliable, requiring almost no maintenance.

Last, because this argument can sometimes be heard, it is never too late to do more about climate change. Every avoided ton of carbon dioxide, every centigrade in avoided warming is going to make a huge difference for the stability of our socio-economic systems. Events considered 'extreme' at this point are not reflective of what's to come, and absolutely no region in the world is safe from the socio-economic outcomes (think failing states and climate refugees). In short, we cannot afford not to act, ever.

To make things simple, here is your to-do-list to 2025:

### 1. BECOME CERTIFIED WITH AN ECO-LABEL.

Why? It will help you to understand your business, reduce your energy and resource use, and contribute to savings that will likely outweigh the cost of certification. Once you are certified, don't forget to put up that sign telling the world that you are. Some may not care, but a large majority of your customers will applaud your efforts.

### 2. ADOPT A NET-ZERO POLICY AND MEASURE.

Why? The world needs to decarbonize within 25 years. Two key performance indicators are relevant for businesses: total emissions (scope 1 and 2) and revenue per kg of CO<sub>2</sub>e. The former is a guideline for every business to decarbonize, the latter considers economic performance. To establish both, measure year-on-year progress, and declare a net-zero goal to 2050.

### 3. INSTALL SOLAR WHEREVER YOU CAN.

Why? No electricity is cheaper, and you can install panels in many forms, not just on rooftops. Think balconies, walls, parking, the outer perimeter of your property. Other businesses or residential housing close to the hotel will rent roof space if paid a share of the proceeds. For most systems, pay-back times will be around six years: beyond that, your energy is free. Don't forget: Installing charging points for electric vehicles can reduce amortization times as you can sell power to (grateful) customers at five times the cost of generating it. A welcome side-effect: you will be less dependent on the grid.

### 4. ELECTRIFY WHERE YOU CAN.

Why? The use of electricity from renewable sources is one of the fastest ways of bringing down emissions. Electric vehicles are costly, and batteries energy-intensive to produce, but this is still the most promising way forward. An added benefit is that you can charge these with any excess-energy you might have from your solar systems, and thus reduce your fuel cost. There is also the issue of hot water: electric heat pumps are

surprisingly efficient, cheaper than oil or gas, and specifically useful when used in combination with low-temperature floor-heating.

#### 5. REINVENT YOUR MENU.

Why? For starters, in many cities the idea of “food” appears to manifest itself in a growing number of hamburger joints replacing a formerly diverse landscape of food services. For culinary reasons alone, we should reconsider. However, there is a business case as well. Vegetarian or vegan menu options are now certainly an expectation by a significant (and growing) share of customers. Food waste avoidance (kitchen, buffet, plate) has always made economic sense, and guests will appreciate the offer of a doggy-bag to take home leftovers (make those paper, not aluminum!).

#### 6. PHASE OUT PROBLEMATIC MATERIALS AND RESOURCES

Why? Speaking of aluminum, many of the materials and resources used in hotels have consequences down the supply chain. Aluminum is made from bauxite, a raw material mostly originating from tropical rainforest soils. This contributes to deforestation - as do palm oil plantations for foods such as Nutella. Giant prawn production is directly linked to the disappearance of mangroves. Foodstuffs transported over great distances also increase emissions – Pangasius flown in from Madagascar, steak from Australia, or grapes from Brazil. Unnecessary! Nobody will miss these if you replace them with sustainable alternatives.

#### 7. BRING IN STAFF.

Why? Staff love to be involved, value sustainability work, and have considerable power over savings, for example when adjusting heat levels in rooms as part of their cleaning routine. Staff may have ideas where to improve sustainability. Perhaps make it a challenge – including rewards for all?

#### 8. DISCUSS YOUR ACTIONS.

Why? The social norm is that action on climate change is positive. As hoteliers, we can reinforce this norm, by showing that we are certified, as well as through more subtle communication, such as real-time displays informing about the amount of electricity produced from solar by the hotel. Consider menu designs as well: by mentioning the farms and suppliers from which you source your foodstuffs, a sense of quality is combined with emphasis on the importance of local food purchases. Always a win-win.

#### 9. LAST: CONSIDER YOUR VULNERABILITIES.

Why? There is much risk in extreme weather events. You cannot plan for them, and it may take years to repair the damage they have caused. The advice is to develop an emergency plan for your specific situation: what will you do in a period of severe flooding, unbearable heat, wildfires (smoke, actual fires), or other risk factors in your specific area? What will you offer your guests – to pass time, in compensation?

#### 10. DONE ALL THAT? THEN BE A LEADER.

Why? Innovation depends on businesses willing to trial new approaches, walking ahead of everybody else. We need change-makers to challenge organizations such as the WTTC or UNWTO to stop the greenwashing; front figures daring to express their support for climate policies - both the incentives *and* the disincentives. Leaders to speak their mind in public. Be a beacon – shine for others!

Reference:

- Gössling, S., Humpe, A., and Sun, Y.-Y. 2024. On track to net-zero? Large tourism enterprises and climate change. [Tourism Management](#)

**Stefan Gössling** — Research Professor at the School of Business and Economics, Linnaeus University

Stefan is a professor of tourism at Linnaeus-University, Sweden. He has worked with tourism sustainability and climate change for almost three decades, and is one of the most cited researchers in the field.

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