CLIMATE ACTION
A Plain Talk Guide for Small Travel Businesses

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Tourism's global carbon footprint was estimated pre-COVID-19 at eight percent of global greenhouse gas emissions including transport, shopping, food, and accommodation. This study, published in Nature Climate Change in 2018, calculated that tourism-produced emissions will increase by 4 percent every year. And while the pandemic had people celebrating the effects of reduced emissions, the reduction is ephemeral. When travel halted and global lockdowns were in place during the first quarter of 2021, nations around the world continued to emit 80 percent of their usual greenhouse gases into the atmosphere.

The adventure and regenerative travel industry, led by passion-driven entrepreneurs in many cases, is acutely aware of a confounding fact: although the business of travel can help preserve places and support communities with the help of tourism revenues, and provide benefits through the heightened awareness and education our guests receive through their travels, we also-due to the effect of the carbon dioxide emissions we generate-are simultaneously aiding in the destruction of those places and communities.

Resolving this conflict and existential danger is at the heart of our desire to design and implement meaningful climate action strategies for our tourism-related businesses. We know that tourism is dominated by small and medium-sized businesses - 60-90 percent of all enterprises in the hotel sector, for example, are micro companies employing fewer than nine people - and transformation in this context brings its own advantages and challenges. For example, reaching strategic consensus and implementing procedural changes might be easier in organizations with fewer employees, yet with fewer staff members, adding new duties related to emissions measurement and tracking might be more challenging.

In this opinion article, we offer a quick primer on the challenges of climate change and the imperative for taking a proactive stance, along with practical suggestions from our own experience and perspective for

tackling the opportunity in the small and medium tourism business context. For people whose knowledge of climate strategy in their tourism businesses may be in the formative stages, we hope reading this inspires some confidence and resources to get started today.

Climate Change and the Imperative for Acting Now

Ninety-seven percent or more of actively publishing climate scientists agree that climate warming trends over the past century are extremely likely due to human activities. In the adventure travel realm, where businesses routinely operate in wilderness environments and the effects of climate change are readily apparent, the imminent threats of global warming are frequently felt.

Carbon dioxide emissions are responsible for more than eighty percent of all greenhouse gases released into the atmosphere and are the most significant contributor to global climate change. Although carbon dioxide is a naturally occurring gas and part of the planet's and humanity's natural life cycle, Earth's expanding human population and activities have radically increased the amount of carbon dioxide in the atmosphere.

The greatest creator of excessive amounts of carbon dioxide is the burning of fossil fuels, which is the combustion of natural gas, coal, or oil for transportation and energy purposes. Other human activities that produce carbon dioxide emissions include logging trees for wood products, chemical reactions from certain types of industries, agriculture, and some solid wastes.

In tourism, the most challenging carbon impacts to avoid and clean up originate with air travel and transportation. Using a carbon calculator to estimate the emissions generated by flying from Frankfurt to Barcelona, one of many favorite destinations for German travelers, or New York City to Miami for citizens of the USA, illustrates that in those two hours of flying a short distance, an average of nearly 500 kilograms of carbon dioxide per passenger is emitted.

In recent years, the number of people flying continues to rise, placing a growing burden on the environment. According to the UN aviation organization ICAO, in 2018 there were about 4.5 billion people worldwide taking flights. Although the pandemic halted or radically decreased travel, there are already signals of a strong recovery: United recently placed an order for 270 single-aisle Boeing and Airbus planes, "the biggest aircraft purchase from a U.S. airline in a decade. By 2026, the expansion, which the company is calling 'United Next,' will increase the number of seats per United's flights in North America by nearly 30 percent and increase the number of premium seats per flight by 75 percent."

Commercial aviation is currently feeling the pressure from the groundswell of concern over its use of petroleum fuels, but in comparison with many other industries, it has an excellent track record of improving propulsion efficiency. In fact, carbon dioxide emissions per passenger flight have fallen more than 50 percent since 1990 thanks to improved engines and operations. These gains however have been overwhelmed by rising volumes of air traffic, which has increased by at least 20 percent over the past five years and is predicted to reach 10 billion passengers a year by 2050.

A key aspect of our current climate predicament that has not been well discussed however, even in the environmentally sensitive adventure travel sector, is the fact that carbon dioxide emissions we generate through our travels today and in the future remain in the atmosphere for generations - 300 to 1000 years, to be precise.

This means that while average temperatures will stop increasing when emissions stop, cooling will still take generations because greenhouse gases dissipate slowly from the atmosphere. Therefore, while using a carbon calculator to understand your new and upcoming emissions and taking steps to reduce those is critical, so is cleaning up quickly the trillions of tons of carbon dioxide currently stored in the atmosphere.

Nature's systems absorb and store carbon dioxide, and yet the quantity of carbon dioxide stored in the atmosphere is now so high that these natural systems cannot do their powerful work quickly enough to prevent our planet from experiencing dangerous warming.

Nature's Carbon Removal and Storage

Forests, especially non-monoculture forests and wetlands, are important resources in helping absorb and store carbon dioxide from the atmosphere. According to the International Union for the Conservation of Nature, approximately 2.6 billion tons of carbon dioxide, one-third of the carbon dioxide released from burning fossil fuels, is absorbed by forests every year. Estimates show that nearly two billion hectares of degraded land across the world-an area the size of South America-offer opportunities for restoration. Increasing and maintaining forests is therefore an essential solution to climate change.

The ocean is also vital to regulating carbon dioxide levels. Between 1994 and 2007, oceans absorbed 34 gigatons of carbon dioxide, or 31 percent of what humans put into the atmosphere during that time. One of the heroes is plankton along with corals and shells that create calcium carbonate using dissolved atmospheric carbon dioxide. These "zooids," which are produced as the plankton grows, stay connected like an aquatic tentacle and can grow to as much as 30 or 40 meters. They are nocturnal and ascend vertically to feed on the carbohydrates at the surface and then, satiated, dive deep again where they sequester the carbon permanently. Learn more about efforts to accelerate the ocean's natural carbon dioxide uptake potential in this video, from ClimateWorks Foundation. Although it is helpful that the ocean absorbs carbon dioxide, it is also a problem, as this contributes to a rise in ocean acidification.

Soil can also be a powerful ally. Next to forests, grasslands are the largest biome on our planet covering approximately 40 percent of all vegetated land area. One damaging development related to soil has been the production and usage of synthetic nitrogen fertilizers. Food products and their supply chain and corresponding platforms are now responsible for up to 30 percent of global greenhouse gas emissions. According to Rattan Lal, director of Ohio State University's Carbon Management and Sequestration Center, "the world's cultivated soils have lost between 50 and 70

percent of their original carbon stock, much of which has oxidized upon exposure to air to become CO2. Now, armed with rapidly expanding knowledge about carbon sequestration in soils, researchers are studying how land restoration programs in places like the former North American prairie, the North China Plain, and even the parched interior of Australia might help put carbon back into the soil."

There is no doubt nature must be recruited and supported to help restore Earth's climate.

Taken all together leading scientists such as Dr. Julio Friedmann, Senior Research Scholar at the Center for Global Energy Policy at Columbia University's School of International and Public Affairs estimates that natural systems can absorb about 50 percent of the amount of carbon dioxide we take out of the atmosphere each year, leaving us relying on an emerging set of carbon removal technologies to address the rest.

The urgency for speed however, and recognition that nature alone cannot accomplish the task alone, has been slow to seep into the general consciousness despite clear directives from leading scientific and climate governance institutions. As noted in a recent article in the quarterly journal of the National Academies of Science, Engineering and Medicine {NASEM): "Even if we stop burning fossil fuels today, tons of historical carbon dioxide emissions sitting in the atmosphere will continue to warm the planet, causing dangerous climate conditions for at least another 1,000 years. Therefore, excess legacy carbon dioxide must be removed from the atmosphere while we simultaneously stop adding new emissions." NASEM advises "removing N10 gigatons per year carbon dioxide globally" by 2050.

To visualize one gigaton imagine one billion metric tons or 2.2 trillion pounds, or 10,000 fully-loaded U.S. aircraft carriers.

Far an undertaking this massive, the longer we wait to act, the more dramatic the changes have to be. As the climate author David Wallace Wells observed, "If the world as a whole had begun decarbonization in the year 2000 ... emissions would have had to fall by three percent per year to achieve climate stability ... if we begin now, we will have to cut them by 10 percent each year."

The scale of the removal required and the timeline in which to accomplish it was also described in the Intergovernmental Panel on Climate Change's (IPCC) 2018 report, which suggested that in order to limit global warming we need to remove 100-1000 gigatons of carbon dioxide from the atmosphere over the 21st century.

The situation is critical, and the stakes are high, but it is possible to restore our climate and it is possible for small travel businesses to be part of the solution.

Read on far a roundup of key facts and ideas far how your business-whatever your starting point-can join in the cause.

Helpful Concepts to Understand as You Begin to Set Your Strategy

Scope 1, 2, 3 emissions

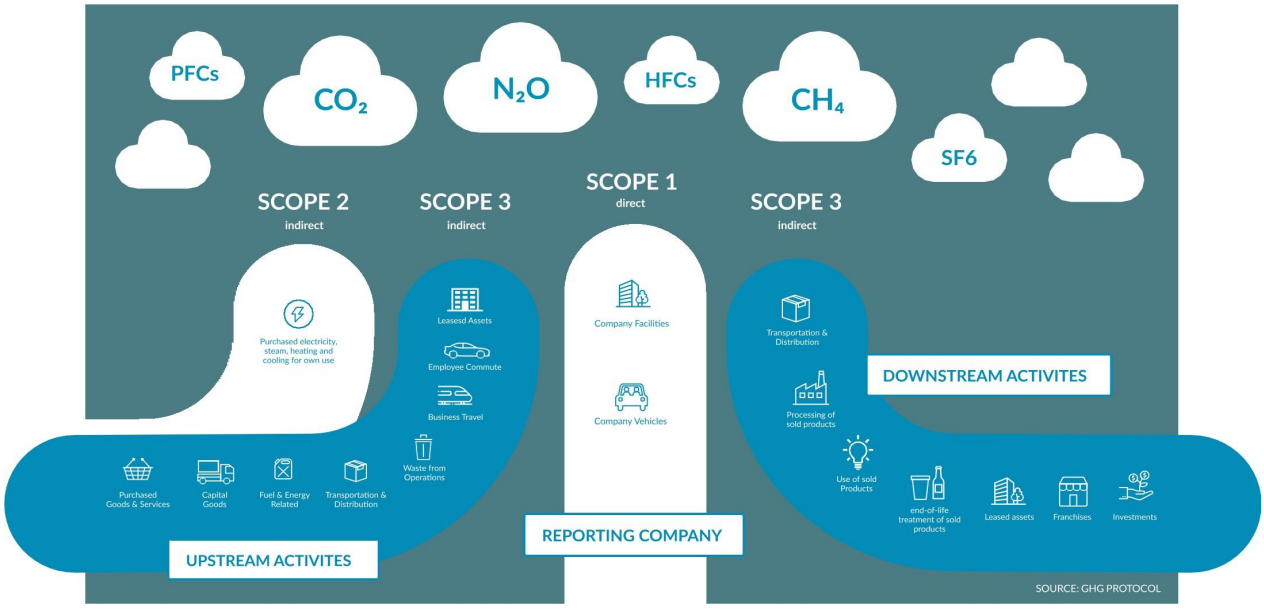
Greenhouse gas emissions are categorized into "scope 1," "scope 2" or "scope 3" emissions.

Scope 1 emissions are direct from sources owned or controlled by a company. This would mean emissions that result from fuel burned in company-owned assets, such as buildings, vehicle fleets, and factories. Scope 1 also includes accidental emissions like refrigerant leaks and evaporated fuel. For travel companies that own transport equipment, scope 1 is very relevant.

Scope 2 emissions are indirect from energy that is purchased. Think electricity, heating, and cooling far company-owned properties or properties rented for guests.

Scope 3 emissions are all other emissions associated with a company's activities. This includes all other indirect emissions associated with your company's upstream and downstream operations. Think of business travel, purchased goods and services from partners and suppliers, waste, transportation, etc.

Understanding the levels of measurement is an important first step. Next comes developing a strategy to reduce and mitigate your greenhouse gas emissions. Most likely, you will begin with a focus on carbon dioxide emissions. Here are some key approaches to consider when setting your strategy.



Carbon Neutral

Carbon neutral means that a company is balancing the greenhouse gas emissions resulting from its operations, typically through carbon offsets that either sequester, avoid or remove an equivalent amount of greenhouse gas emissions. The standard process is to measure company emissions over a specific period, then put practices in place to reduce and offset.

Reductions might be found for example by switching guests into accommodations that use renewable energy, reducing the amount of meat in provided meals, and altering types of transportation used in tours. For instance, in Costa Rica the government's understanding that livestock is responsible for about 23 percent of the country's gross greenhouse gas emissions has resulted in "NAMA Ganadería," a mechanism that is the product of public-private agreement for the transformation of bovine livestock towards eco-competitiveness, promoting the use of practices, technologies and measures aimed at the development of a climate-smart, profitable, productive and socially sustainable livestock. Also, a very important action is to buy local: this not only reduces the carbon footprint, but also supports local producers and the economy. Furthermore, buying seasonal products is also a good adaptation measure in order to avoid pressure on scarce commodities.

Offsets can include supporting forestry projects creating new carbon sinks. For example, participants in the ATTA's Neutral Together carbon offset bulk purchase program are helping protect nearly 785,000 hectares of forest from deforestation and land degradation, preventing more than 18 million tons of carbon dioxide from being released into the atmosphere.

For organizations ready to become carbon neutral the first step is metrics: measuring emissions according to a defined scope (e.g., scope 1, 2, or 3) and then deciding which projects to support to balance out those emissions. Carbon neutral targets are flexible on timing because these commitments can be met immediately within the scope defined by the company.

Science-based Targets

Companies that adopt a Science-based targets approach also start with measuring their carbon emissions for a specific period, although in this case the time horizon is specified: five to fifteen years ahead. The method encouraged by the Science-based Targets Initiative (SbTI) requires using the World Resources Institute's Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, to quantify emissions.

The SbTI offers criteria and guidelines. The recommendation is that targets "should cover at least 95 percent of company-wide scope 1 and 2 emissions." As for Scope 3, SbTI observes that "a company's scope 3 emissions are often much greater than Scope 1 and 2 and ambitious scope 3 targets can play an integral part in a company's greenhouse gas reduction strategy, allowing it to demonstrate performance and leadership, manage supply chain risks and opportunities, and address the needs of stakeholders. Scope 3

targets also help companies to better understand whether current business models are compatible with a low-carbon future."

Following the guidelines of the SbTI means your company is reducing or eliminating sources of carbon dioxide emissions associated with its operations and its value chain until reaching a consistent level of residual emissions, which are the ones that cannot be abated due to constraints, such as economic or technological ones. Intrepid Travel, which operates adventure tours to over 130 countries (pre-pandemic) to all seven continents, has adopted science-based targets and developed an open-sourced guide for tour operators.

> *"Science-based" refers to setting reductions targets in accordance with recognized climate science aimed at reducing emissions on target with limiting global warming to 1.5 degrees C, the goal of the Paris Agreement.

NetZero

Net zero commitments are newer, and the standards for net zero commitments are still being defined. A September, 2020 paper published by the CDP (formerly Carbon Disclosure Project) and the Science-based Targets Initiative lays out the conceptual framework for net zero, however, and states that achieving a state of net zero involves reducing all "technologically and economically feasible emissions" in line with limiting warming to 1.5 degree C, and balancing any residual emissions with carbon removals.

Net zero emissions strategies include every type of greenhouse gas, in addition to carbon dioxide including nitrous oxide, methane, and halocarbons from human activities. A key feature of Net Zero commitments is their acknowledgment of the importance of carbon removal, to the extent that they are eventually exclusively used to address emissions that cannot be otherwise abated.

The important thing to take away from these various schemes is that they all include the use of a credible standard for quantifying emissions, to establish baselines, and measure progress toward achieving a target. Innovative and creative strategies by small and responsible tourism business owners can have an influential and strong effect on the course of governmental decisions, as well as the use of long-term technologies to reduce or eliminate their carbon footprint. These commitments to reducing their impact have tremendous potential in altering the course of future tourism carbon consciousness.

Next, **an overview of tools** that are helpful to understand when you're thinking about how to reach the goals you set for business.

With your strategic approach in place, you will likely next assemble a portfolio of reduction strategies along with carbon offsets and removals to help mitigate emissions you can't eliminate immediately. Here are some key terms to understand for this stage of your work.

Carbon offset

The purchaser of a carbon offset compensates for its own emissions by paying someone else to avoid emissions elsewhere. In a way, we can think of this as a trade of pollution rights, because carbon is still being emitted into the atmosphere where it will remain far hundreds to thousands of years. Other types of carbon offsets involve paying far for the planting of new trees (afforestation) or restoring forests (reforestation) for example.

Carbon removal

Carbon removal means capturing carbon dioxide from the atmosphere and locking it away far decades or centuries in plants, soils, oceans, rocks, saline aquifers, depleted oil wells, or long-lived products like cement. Nature can absorb carbon dioxide as described earlier in this article, and there are also technological approaches to absorbing carbon dioxide. Technological approaches to carbon dioxide removal are often referred to as "negative emissions technologies."

The World Economic Forum's recent whitepaper, Net-Zero to Net-Negative: A Guide for Leaders on Carbon Removal advocates categorizing the spectrum of carbon removal actions "according to the means of removal from the atmosphere (e.g. photosynthesis powered by organisms, enhanced natural geochemical processes such as weathering, "engineered" filtering of C02 from air) and the means of subsequent carbon storage (e.g. in organic matter, mineralized farms, geological reservoirs, the built environment, long-lived products, ocean sediments or other sinks)."

It is worth noting that negative emissions technologies have been built into nearly all climate-action goals. David Wallis Wells writes about this in his book, Uninhabitable Earth, observing, "This is a chilling fact, which almost nobody outside the climate world appreciates: Just about every plausible scenario for avoiding catastrophic change is built on these technologies, which we are only now beginning to test. Of 400 IPCC emissions models that land us below two degrees Celsius, 344 feature negative emissions, most of them significantly." As individuals and companies rapidly build their knowledge and establish climate action plans, a vibrant public discourse has emerged in which the advantages of different approaches are often passionately debated. Some people see carbon removal technologies as a threat or challenge to natural solutions to help restore our climate, and others view technology as a distraction from actions such as investment in renewables and regulations targeting the fossil-fuel industry.

While we see these debates as healthy and interesting, we also find the science that indicates all actions will be needed, and quickly, to help restore our climate, compelling.

Types of negative emissions technologies include direct air capture, enhanced ocean productivity, bioenergy with carbon capture and storage, and enhanced weathering, to name a few.

For a no-nonsense summary of negative emissions technologies visit American University's carbon removal website. Learn more about what is and is not carbon removal in this informative short video from Oxford University's Eli Mitchell-Larson.

Carbon Storage

We need to take carbon dioxide from the atmosphere, and we need to store it, securely and permanently, in order to restore our climate.

While natural systems such as oceans and forests capture and store carbon dioxide in trees and soil, carbon stored in wood is released back to the atmosphere when the wood product is burned or decays. The utility of forest projects for climate stabilization is the subject of significant debate because forest projects require active long-term protection that is often not possible to ensure, especially in developing countries. This is not a reason to withdraw support from forests-quite the opposite, as we can help ensure their protection with our support while enjoying the many co benefits of forests, not least of which they are great places to hike! Rather, it is a reason to make sure to include other forms of action that include reliable storage in your strategy.

Carbon mineralization is a process by which carbon dioxide becomes a solid mineral, such as a carbonate. Mineralization happens when certain rocks-such as basalt-are exposed to carbon dioxide. Mineralization occurs within two years in the case of carbon removed from the atmosphere and injected into the basalts in Iceland, through a process developed by CarbFix. A significant advantage of carbon mineralization is that the carbon cannot escape back to the atmosphere. Another company, 44.01, will store captured carbon dioxide in peridotite in Oman.

Practical Suggestions for Small and Medium Sized Tourism Businesses

So now that you're up to speed on the necessary basics, what to do? For small and medium-sized businesses with limited reach, key benefits can be realized, and a valuable contribution made to supporting our global effort to halt global warming, through some simple measures.

Recognize that your near-term strategy can evolve and grow, and that starting with practical, simple measures is valuable.

1. Commit to action internally

First pull your leadership team together and commit to focusing at least some time and energy each week on climate. For a small team this might mean that one team member's duties shift in order to open up time for learning and policy formulation.

2. Learn

Get comfortable with the vocabulary and acquaint yourself with key themes in climate strategy including the discourse on the necessity of carbon removal.

Reading a few reliable articles can help; steer clear of the activist rants and stick to a few seminal papers:

- The carbon footprint of global tourism
- IPCC Special Report on 1.5
- Developing a Research Agenda for Carbon Dioxide Removal and Reliable Sequestration
- Oxford Principles for Net Zero Aligned Carbon Offsetting
- Carbon Dioxide Removal Primer
- Economist: Investing in Carbon Removal: Demystifying Existing Approaches

Internalize and understand that no matter how small or large your company is, the most meaningful contribution you can make, not to mention a cost-effective and low-risk way to accelerate along the path to restore our climate, is to diversify your actions. This means try to incorporate a range of actions into your plan, from conventional offsetting, to innovations in carbon removal. Acknowledge in your planning the value and importance of communications and education you can share with your business partners and customers, as sharing your business' climate journey. The Travel Corporations Climate Action Plan offers one example of this.

The World Resources Institute discusses the need to develop a portfolio that includes a variety of approaches in tandem. This presentation, recorded at the Adventure Travel World Summit 2021, also provides a helpful discussion of why a portfolio approach to climate action is necessary.

3. Take stock: understand your carbon emissions

- Calculating emissions is a multistep process, and making a useful inventory depends on the quality of the activity data. For large organizations, GHG Protocol's Corporate Accounting and Reporting Standard offers guidance on the entire inventory development process.

- Small travel tour operators and accommodation providers might find the Neutral Together calculator developed by South Pole in collaboration with the Adventure Travel Trade Association helpful. Likewise, engaging a consultant such as ecollective, which specializes in small travel business emissions, or the team at Sustainable Travel International can help in this undertaking. Expect to collect electricity and gas bills and sum up miles your team and services travel, along with different types of transport used. If you're just getting started, don't get bogged down in minutia, start with big categories such as transport and lodging. Consider the experience of businesses who have built carbon offsetting fees into their trip prices and been rewarded for their efforts with stronger brand loyalty. This topic and others were discussed at a Climate Action Leadership Studio held in Sweden; this article offers a good overview of the discussion.

- For most tour operators, emissions are generated through services purchased in the supply chain such as transport, food and accommodation and are not under the direct control of the operator. For this reason, calculating emissions and setting targets can be daunting, however not impossible, as Intrepid Travel, the first tour operator to submit Science-based carbon reduction targets, has shown. If your business decides to follow the Science-based Targets Initiative route, Intrepid has made its methodology available here.

4. Commit to action publicly

Although it is not necessary to join one of these pledges, looking them over can help in framing your own internal strategy, and if you do decide to join you will find community support for your efforts:

- Tourism Declares A Climate Emergency: a general strategic orientation for climate action in your business that sets the stage for specific plans to be developed. Signers can access the members community platform for questions and collaboration.

- Glasgow Declaration: a general strategic orientation for your business, specifically organizing efforts around the categories of Measure, Decarbonize, Regenerate, Collaborate, and Finance

- SunX Malta Registry for Climate Friendly Travel: as with Tourism Declares and the Glasgow Declaration, signers agree to measure their emissions and commit to reductions. A community hub for discussion and access to learning materials is also accessible.

- Commitment to Climate Action Pledge: the Adventure Travel Trade Association's pledge is the most tactical document, providing specific examples of the types of actions your company might choose to take.

5. Choose the mix of actions for your business:

Reduce emissions:

- Transform how you operate. Consider the many ways your business can reduce the carbon emissions associated with its operations-from incorporating different types of transportation, outfitting lodges with renewable energy, to sourcing local vegetarian foods. Learn how many companies are starting in this recent research report, State of Climate Action in the Adventure Travel Industry, developed by the Adventure Travel Trade Association in partnership with Intrepid Travel. Stay tuned for an expansion of this survey led by the UNWTO in partnership with the Adventure Travel Trade Association and Tourism Declares set to publish in November, 2021, "Global Study of Climate Action in Tourism." This first-of-its-kind global study will offer a view into how companies around the world are currently taking action on climate goals.

- Support nature-based methods for absorbing carbon from the atmosphere such as forestry projects or regenerative agriculture available through most credible carbon offsetting schemes. Climate Conscious Travelers from Costa Rica is an example of an offsetting program whose revenues support local projects.

Remove emissions:

- Incorporate technical means of carbon removal with permanent storage, even at a small level, into your approach, such as through Tomorrow's Air. Tomorrow's Air is incubated by the Adventure Travel Trade Association and unites travelers, travel companies and destinations to support carbon removal via direct air capture provided by Climeworks, with permanent carbon storage provided by CarbFix. Participating businesses and destinations receive communications tools to use with their audiences and are featured in educational campaigns. Individual travelers who join receive access to a curated suite of travel benefits offered by sustainable travel companies. Unlike other innovative removal alternatives which are not accessible to individual travelers, with Tomorrow's Air travelers and companies join forces in the same program and support inspiring and engaging education.

Consider your climate communications:

- When evaluating solutions for your business and communicating them to your customers, transparency is important. You should share how you're directing money to support the activity of reducing and removing carbon dioxide along with other costs, particularly education, marketing, outreach and administrative costs. For two examples of communications about funding allocations, visit Sustainable Travel International's "Finances" page and the "Where the Money Goes" blog on Tomorrow's Air. Make sure to value administrative functions and marketing and trade and consumer outreach contained in social media, webinars and mailings to your audiences, as without effective communications the global community of climate activists cannot grow. Climate communications is vital, as the scientific community can only go so far on its own. The powerful work of science must be digested, translated and promoted to a wider audience in order to be useful. Past emphasis on driving 100 percent% of funding to a local projects devalues the necessity of communications.

6. Keep track of your efforts and expand them

- Collaborating and meeting regularly with a group of like-minded businesses can help reinforce and maintain momentum for your commitments. Share your experiences and learn from each other about what's working in your business and where you're challenged.

- Involve the community where you are in your efforts through education, training and hiring. Research shows that new talent appreciates working with a business whose values align with theirs, so recognize that your climate strategy might also be a tool for recruiting top talent.

Final Thoughts

Climate action can feel intimidating to non-specialists, yet once you make time for it and start talking with your colleagues and learning, you will find that we have a welcoming community of people eager to support each other. The journey of working towards a solution and tackling the transformation of your business in increments is one you will find empowering and rewarding. Your clients and guests will appreciate and reward your efforts, and your team will too.

About the authors

Christina Beckmann is the Vice President for Global Strategy at the Adventure Travel Trade Association (ATTA) where she leads the climate action. In this capacity she is leading consumer and industry facing climate research, initiated Neutral Together, a carbon offsetting bulk purchase program for ATTA members, and is a co-founder at Tomorrow's Air, a carbon removal collective uniting travel businesses and travelers for carbon removal with permanent storage. With nearly twenty years' experience in sustainable travel, Christina has worked in more than 30 countries on projects to support adventure travel market development, strengthen entrepreneurs, and promote awareness for natural and cultural capital. Some of her past published work can be found in Overtourism, Lessons for a Better Future; Tourism Routes and Trails; The Routledge Handbook of Tourism Impacts; North American Adventure Travelers: Seeking Personal Growth, New Destinations, and Immersive Culture. Learn more about her at christinabeckmann.com.

Glenn Jampol is a pioneer in Costa Rica of responsible and regenerative tourism for over 35 years with his small hotel and organic coffee farm, Finca Rosa Blanca Coffee Farm & Inn, which was one of National Geographic Unique Lodges of the World. Mr. Jampol was one of the authors of Costa Rica's Certification for Sustainable Tourism (CST), one of the most comprehensive and well-respected certification programs in the world. Mr. Jampol is also an organic farmer and owner of Café Rosa Blanca, an award-winning forested and certified organic coffee farm, and was the global recipient of the Rainforest Alliance International Sustainable Standard Setter Award. Currently he is the Chair of the Global Ecotourism Network (GEN), representing six global and regional ecotourism networks. He is also a founding member of the Latin America & Caribbean Ecotourism Network (LACEN), and a Director of the Board of the World Food Travel Association.