A Directory of Sustainable Tourism Initiatives & Resources

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Introduction

The Center for Responsible Travel (CREST), in cooperation with UN Environment, has compiled this resource packet as part of our commitment to supporting the UN’s 2017 International Year of Sustainable Tourism for Development (IY2017). Throughout the tourism industry, there are many initiatives and advocacy campaigns that promote innovative best practices, codes of conduct, and certification programs, all designed to help deepen our understanding of, and commitment to, sustainable travel. This directory contains valuable information on a range of topics that are critical to ensuring that businesses operate more sustainably and travelers make more informed and earth-friendly decisions.

Special thanks go to our research team which included Soyoon Choi and Paula Lewis at CREST and Samantha Suffet at UN Environment. The report was edited by staff from both organizations.

This Directory is available on the 1Y2017 Forum website at: www.responsibletourismforum.wordpress.com/resources.

We invite tourism businesses and organizations to add this link to your websites and to share this resource directory with your networks. We also welcome your input for additional topics and content. Please send your suggestions to: staff@responsibletravel.org.
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Cultural Heritage Preservation

Cultural tourism is growing at an unprecedented rate and now accounts for around 40% of global tourism. But, the UNWTO warns, “Today many tourism sites are receiving huge influx of visitors, especially in peak periods, that might cause severe management difficulties, deterioration of the visitor experience, as well as the general site conditions.”

The following are guidelines and other resources from international organizations that are working to preserve cultural heritage sites, as well as an example of an exemplary sustainable tourism initiative along a heritage route.

• **World Monuments Fund**
  Dedicated to “saving the world’s most treasured places”, World Monuments Fund (WMF) recognizes that “unmanaged tourism can damage cultural sites.” Its World Monument Watch, a list of threatened cultural heritage sites, is issued every two years. The 2016 list contains 50 at-risk cultural heritage sites in 36 countries; some, like Venice and Charleston, South Carolina, are suffering from uncontrolled and unregulated tourism. The WMF has also issued a 10 point “Sustainable Tourism Pledge” for travelers and tour operators which includes travel trips ranging from “reduce your (carbon) footprint” to “respect local culture” and “go off the beaten path.” See the Watch List at [https://www.wmf.org/watch/watch_year/2016](https://www.wmf.org/watch/watch_year/2016) and the Pledge at [https://www.wmf.org/sustainable-tourism-pledge](https://www.wmf.org/sustainable-tourism-pledge).

• **UNESCO World Heritage Sustainable Tourism Toolkit**
  The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has put together a Sustainable Tourism Toolkit for World Heritage sites. The series of ten “How To” guides for site managers, tourism professionals, conservation professionals, and communities are designed to “enable a growing number of World Heritage Site communities to make positive changes to the way they pro-actively manage tourism.” See: [http://whc.unesco.org/sustainabletourismtoolkit/welcome-unesco-world-heritage-sustainable-tourism-toolkit](http://whc.unesco.org/sustainabletourismtoolkit/welcome-unesco-world-heritage-sustainable-tourism-toolkit).

• **Urban Land Institute’s Ten Principles for Responsible Tourism**
  Published in its magazine, *Urbanland*, this article offers ten concrete recommendations for how a community can take concrete steps to “attract tourists and their dollars without losing its soul.” These include: 1) preserve and restore historic buildings, neighborhoods, and landscape,” 2) focus on the authentic, 3) protect community gateways, 4) recognize that tourism has limits and must be managed, and six other recommendations. See: [https://urbanland.uli.org/industry-sectors/ten-principles-responsible-tourism/](https://urbanland.uli.org/industry-sectors/ten-principles-responsible-tourism/).
• **World Tourism Organization’s Publications on Sustainable Tourism and Cultural Heritage**
  The World Tourism Organization (UNWTO) has published a series of practical study guides on cultural heritage and sustainable tourism, including *Communicating Heritage – A Handbook for the Tourism Sector*. This publication aims to improve the ability of the tourism sector, including businesses, to develop and present destinations and heritage sites in a more comprehensive manner. It provides guidance on successful and effective heritage communications strategies and policies. See: [http://sdt.unwto.org/es/node/38026](http://sdt.unwto.org/es/node/38026).

• **World Heritage and Tourism in a Changing Climate**
  This report by UN Environment in collaboration with UNESCO and Union of Concerned Scientists provides an overview of the increasing vulnerability of World Heritage sites to climate change impacts and the potential implications for tourism. The report’s goal is to provide a basis for action on climate change and tourism in World Heritage sites. Using a series of case studies from World Heritage sites around the world, many of them iconic tourist destinations, the report shows how climate driven changes currently, or could in the future, threaten their outstanding universal value (OUV), integrity and authenticity, economies, and communities that depend on tourism. See: [http://whc.unesco.org/en/tourism-climate-change/](http://whc.unesco.org/en/tourism-climate-change/).

• **A Sustainable Tourism Strategy for the Silk Road Heritage Corridors**
  The Silk Road was the first bridge for trade between the ancient empires of China, Central and Western Asia, the Indian sub-continent, and Rome. Today these routes, or “heritage corridors,” have the potential to develop sustainable tourism businesses that offer economic benefits to local communities and cross-cultural exchange through tourism development. The Silk Road Heritage Corridors Tourism Strategy Project, launched in 2013 by UNESCO and UNWTO, among others, is building transnational tourism initiatives and businesses to promote shared heritage under the Silk Road brand. By taking a collaborative approach to developing tourism for the Silk Road corridors, it is planned that:
  o sustainable approaches to destination management will be applied across the region;
  o dispersal of visitation across the region will improve;
  o length of stay and yield will increase;
  o new opportunities for investment will open;
  o international relations will be strengthened;
  o new opportunities for public-private sector partnerships will be realized.
Peace through Tourism

Despite terror attacks, civil wars, and political unrest, the travel and tourism industry continues to be resilient, growing at close to 4 percent annually. Data shows that 45 percent of travelers have serious safety and security concerns and about two-thirds plan to travel only to international destinations they perceive as being safe.

Tourism’s prominence as a global people-to-people industry offers the potential for promoting peace. But creating the connection between tourism and peace does not naturally occur. It requires that conditions on both sides of the equation be right: peace must be more than an absence of conflict and tourism must be crafted so that it truly benefits local communities and the environment and builds genuine exchanges between visitors and hosts.

In post-conflict situations, tourism is often one of the first sectors to experience a new boom, as seen in Sri Lanka, Colombia, and Burma. Tourism promises new investments and employment. Rapid development, however, may also lead to grievances or may even fuel latent conflicts. In many cases, governments promote the sector even before having initiated a serious process of reconciliation and comprehensive recovery. When this happens, ecological and social standards are often disregarded, and the rights of local people overlooked.

Two broad tourism initiatives, one to help tour operators working in fragile situations to respect human rights and the other is to create peace parks, both across borders and within countries, are striving to foster mutual understanding and promote peace building.

The following are some organizations and projects involved in these initiatives:

- **Roundtable Human Rights in Tourism - Guide for Tour Operators in Post-Conflict Situations**
  In fragile post-conflict situations, tour operators are often faced with the challenge of how to operate in ways that respect human rights and help build peace. Without due diligence, they run the risk of tolerating human rights violations, or of aggravating conflicts. The Roundtable on Human Rights and Tourism, based on its study of human rights violations in post-conflict Sri Lanka, has issued a check list of guidelines and best practices to help tour operators and other tourism businesses ‘scope the risks’ and to conduct careful assessments in fragile conflict contexts. See: http://www.menschenrechte-im-tourismus.net/fileadmin/user_upload/menschenrechte/Dokumente/Guideline_Tourism_in_fragile_contexts_Roundtable2016_EN.pdf.
- **International Institute for Peace through Tourism’s Global Peace Parks Project**
  The International Institute for Peace through Tourism (IIPT) has an initiative to dedicate land to creating Global Peace Parks to help in “Building a Culture of Peace.” The project grew out of the success of IIPT’s 1992 “Peace Parks Across Canada” project designed to commemorate Canada’s 125th birthday as a nation. Each park contains a ‘bosco sacro’ – a ‘peace grove’ of 12 trees, symbolic of Canada’s 10 Provinces and 2 Territories. Many IIPT Peace Parks have erected Peace Poles with the message ‘May Peace Prevail on Earth’ in different languages. IIPT has developed a toolkit for how to start a peace park. In addition, the Peace Parks Foundation, based in South Africa, has been promoting transboundary peace parks “to jointly manage natural resources across political boundaries,” in part through increased tourism, since 1990. See the IIPT website: http://www.iipt.org/globalsummit/peaceparks.html and the Peace Parks Foundation website: http://www.peaceparks.org/.

- **The Borderplex Alliance**
  Located at the gateway of two countries and three states, the North American Borderplex Alliance seeks to build meaningful change by transforming the way El Paso, Texas; Las Cruces, New Mexico; and Ciudad Juárez, in Chihuahua, Mexico leverage their combined assets to attract expanded tourism, new investments and jobs, and engage communities across the border. The binational, bicultural, bilingual personality of the area is one of the region’s strongest assets. Rather than building walls of separation, Borderplex is using tourism to promote the region’s rich cultural history, geography, and cutting-edge innovation, which offer an abundance of year-round outdoor and indoor opportunities. See:https://borderplexalliance.org/borderplex/key-industries-in-the-north-american-borderplex/tourism.

- **People-to-People Tourism in Cuba**
  People-to-people travel is not only a legal way the US government permits Americans to visit Cuba. Coincidentally, it also provides visitors with unique access to people and places the average tourist rarely sees and gives a better understanding of daily life and socio-political realities in Cuba. Dozens of U.S. companies and organizations are offering small group tours that help to foster mutual understanding through, for instance, stays in home-based B&Bs and meals in family-run restaurants, and interactions with local artists, musicians, and others. RESPECT (Responsible & Ethical Cuba Travel) is a U.S. professional association for tour operators and others dedicated to practicing responsible travel to Cuba. Members pledge to adhere to RESPECT’s set of core principles and good practices. See: respect@respectassociation.org; https://insightcuba.com/travel-info/people-to-people-cuba-travel and http://www.cubaeducationaltravel.com/.
Employment

Gender Equality

Sustainable Development Goal (SDG) 5, to achieve gender equality and empower all women and girls, directly relates to the tourism industry. Research has shown that travel and tourism sectors employ a higher percentage of women as compared to the general workforce as a whole. For instance, over 55 percent of hotel and restaurant jobs are held by women, according to the International Labor Organization. However, gender inequality still exists within the tourism industry, as women often have the lowest-ranking and lowest-paid positions and may be subject to physical and sexual abuse. There are several global initiatives and organizations seeking to address these issues:

- **World Tourism Organization (UNWTO)**
  The UNWTO is committed to promoting gender equality and women’s empowerment within the tourism industry by encouraging member states to integrate gender issues within their tourism policies. In collaboration with UN Women, UNWTO’s *Global Report on Women in Tourism* outlines key findings in five thematic areas: employment, entrepreneurship, education, leadership, and community. The Report also provides recommendations and actions for each of these thematic areas. For example, recommendations for the private sector include establishing leadership programs, providing specialized career guidance and support, and creating policies to ensure a safe working environment for women. See: [http://ethics.unwto.org/content/gender-and-tourism](http://ethics.unwto.org/content/gender-and-tourism).

- **Equality in Tourism**
  Equality in Tourism is a non-profit organization working towards creating gender equality in the global tourism industry. Their mission is to stimulate accountability, promote policy changes, and identify best practices at every level to empower women and drive change. To achieve this mission, they work with partners in the public and private sectors to provide expert services such as gender impact assessments, social and strategic needs analyses, and gender awareness programs to develop standards, among others. See: [www.equalityintourism.org/](http://www.equalityintourism.org/).

- **Other useful resources**
  - UN Environment’s *Global Gender and Environment Outlook* [www.unep.org/ggeo](http://www.unep.org/ggeo) and policy [www.unep.org/gender/what-we-do/policy](http://www.unep.org/gender/what-we-do/policy)
Local Employment & Fair Working Conditions

The travel and tourism industry is a leading employment sector, accounting for 1 in 11 jobs worldwide. According to former UN Secretary General Ban Ki-moon, “As one of the world’s leading employment sectors, tourism provides important livelihood opportunities, helping to alleviate poverty and drive inclusive development.” Indeed, tourism is a relatively labor-intensive sector and is traditionally made up of small and micro enterprises. Many activities in tourism are particularly suited to women, young people, and disadvantaged groups such as ethnic minority populations. Many tourism jobs are potentially quite accessible to the poor as they require relatively few skills and little investment. Some may also be part time and used to supplement income from other activities.

On the other hand, tourism jobs are often low paying and part time or seasonal and unions may be banned or not exist. Physical and sexual exploitation and child labor can also occur. In addition, problems are hard to track because good data is frequently lacking. According to the UNWTO, “The world of work in tourism is generally not well-known because reliable data are missing. Only a handful of countries have meaningful statistics on employment in the tourism industries.” While there are no high-profile campaigns fighting specifically for workers’ rights in the tourism industry, fair and equitable working conditions are promoted by a number of organizations. These include:

- **Fair Working Conditions**
  The Global Sustainable Tourism Council, which is affiliated with the UNWTO, establishes and manages global sustainable standards, known as the GSTC Criteria, for the tourism industry. Its criteria and performance indicators for hotels and tour operators include ones for Local Employment which states that “local residents are given equal opportunities for employment and advancement, including in management positions.” Regarding the indicator of Exploitation and Harassment, the GSTC criteria states that tourism businesses should have “implemented a policy against commercial, sexual, and other forms of exploitation or harassment, particularly of children, adolescents, women, minorities, and other vulnerable groups.” See: [https://www.gstcouncil.org/gstc-criteria/gstc-industry-criteria/](https://www.gstcouncil.org/gstc-criteria/gstc-industry-criteria/)

- **Employment and Decent Work in Tourism, an ILO-UNWTO Project**
  This joint project by the statistical departments of the International Labor Organization (ILO) and the UN World Tourism Organization (UNWTO) is designed to fill the gap in reliable employment and working conditions data. This project seeks to improve methods of statistical data collection about persons employed in tourism industries, including occupational structure, qualifications, skills, working conditions, wages and remuneration, etc. Two of its initial publications are "Sources and Methods: Labor Statistics. Employment in the Tourism Industries – Special Edition" which provides methodological descriptions of statistical series on employment, wages and hours of work in various tourism sectors and Measuring Employment in the Tourism Industries - Guide with Best Practices which provides examples of countries that have demonstrated capacity to develop a comprehensive
set of tourism employment indicators. A third initiative is testing the applicability of the ILO Decent Work Indicators in the context of tourism. While geared mainly for UN member countries, this project also provides resources, guidelines, and best practices useful for tourism businesses. See: http://statistics.unwto.org/en/project/employment-and-decent-work-tourism-ilo-unwto-joint-project.

- **Protecting Children from Sexual Exploitation**
  The Code of Conduct for the Protection of Children from Sexual Exploitation in Travel and Tourism represents one of the first initiatives to define the role and obligations of tourism companies regarding the issue of child sex tourism. The goal of the Code is to work with travel and tourism companies to combat this crime. The Code employs the following six criteria which members of the tourism industry must adhere to once they join the Code:
  1. Establish an ethical policy against sexual exploitation of children;
  2. Train personnel and staff members;
  3. Introduce a clause about being a member of the Code in contracts with suppliers;
  4. Provide information to travelers in the form of brochures, web pages, or other materials;
  5. Provide information to “key persons” at the destination;
  6. Report annually on the implementation of actions associated with these six criteria.
  See: http://www.thecode.org/about/.

- **Fair Trade Tourism**
  Fair Trade Tourism is a non-profit organization promoting best-practices in tourism businesses in Africa. This voluntary certification program, first developed in South Africa, is the world’s first Fair Trade tourism certification program. Fair Trade Tourism awards a special certification trademark or label to tourism enterprises that meet specific sustainability criteria based on global Fair Trade standards and locally relevant issues such as skills development, ownership, and HIV/Aids management. It defines sustainable tourism as ensuring fair wages and working conditions, fair purchasing and operations, equitable distribution of benefits and respect for human rights, culture and the environment. In addition to South Africa, it certifies tourism businesses in Madagascar, Mozambique, and Zimbabwe, and has formal recognition agreements with equivalently benchmarked certification programs in Namibia, Seychelles, Botswana, Kenya, and Tanzania. See: http://www.fairtrade.travel/Home/.
Responsibly-Sourced Food

Buying sustainably-sourced food helps the local economy, reduces pollution, and cuts GHG emissions associated with long-distance transportation. It also helps to preserve and promote local cuisine while providing tourists with more authentic and healthy experiences. Customer demand for sustainably sourced food and food transparency continues to grow and farm-to-table initiatives are helping to offset the impacts of climate change. Aside from meeting customer expectations, additional benefits of sustainable sourcing to businesses include cost savings, reputation management, and improved relationships with suppliers, among others. Multiple resources are available to assist with responsible food sourcing, including:

- **Responsible Food Purchasing Guideline**
  "Responsible Food Purchasing: Four steps towards sustainability for the hospitality sector" was created by UN Environment to provide practical advice on purchasing sustainable food. The publication describes a four-step approach and methods to apply when purchasing food and explains the importance and benefits of responsible food purchase. It also includes case studies on best practices and additional resources. See: [http://bit.ly/2yv9euK](http://bit.ly/2yv9euK).

- **Green Hotelier Guide on Sustainable Sourcing of Food**
  Green Hotelier has created a complete know-how guide on sourcing sustainable food in hotels. The guide provides explanations of benefits, tips and ideas on how to get started, and highlights lessons learned from various case studies. Additionally, specific advice about picking sustainable suppliers, calculating food carbon, and creating kitchen gardens is provided. This know-how guide can be found at [www.greenhotelier.org/know-how-guides/sourcing-sustainable-food-in-hotels/](http://www.greenhotelier.org/know-how-guides/sourcing-sustainable-food-in-hotels/).

- **Other useful resources**
Making Tourism Count for the Local Economy in the Caribbean, Guidelines for Good Practice
(see section on local farmers):
Food Waste

As tourism and the hospitality sector grow, so too does the problem of food waste. In total, about one third of all food produced globally is lost or wasted. Food waste puts a strain on valuable resources, releases methane, and wastes money. By implementing a food waste reduction program, hotels and restaurants can reduce operational costs and increase guest satisfaction, while simultaneously reducing negative environmental impacts. Various initiatives designed to address the food waste issue, include:

- **Think.Eat.Save**
  As a part of the Save Food Initiative, the Think.Eat.Save campaign was created in partnership with UN Environment, the Food and Agriculture Organization of the United Nations (FAO), and Messe Düsseldorf as a call to action on food waste. The campaign seeks to shift the food waste paradigm by engaging all sectors of society through awareness and action. The website, www.thinkeatsave.org, showcases ideas, projects, and a range of resources that can be used to reduce food waste. Of particular interest for businesses is the Think.Eat.Save Guidance Document on the Prevention and Reduction of Food and Drink Waste, which provides a basis for targeted action for businesses and households. Guidance is provided on actions such as quantifying waste, developing and implementing programs to prevent waste, and monitoring and reporting strategies. See: www.thinkeatsave.org/index.php/take-action/think-eat-save-guidance-document.

- **World Wildlife Fund**
  The World Wildlife Fund (WWF) is working to bring people from different industries, including tourism, together to reduce food waste. In one initiative, WWF has partnered with the American Hotel and Lodging Association to launch a series of food waste pilot projects. As part of the pilot projects, hotels tested various food waste reduction strategies, including employee training, waste reducing menus, and the benefits of consistent food waste management. A report on key findings and a free industry toolkit for the hospitality sector will be published in November 2017. More information on this and other WWF food waste programs can be found at www.worldwildlife.org/initiatives/food-waste.

- **Champions 12.3**
  Target 12.3 of the UN’s 17 Sustainable Development Goals (SDGs) calls for reducing food loss and waste, from production through consumption. To support this target, a coalition of executives was formed to mobilize action and facilitate progress towards achieving Target 12.3 by 2030. Champions are committed to lead by example, showcase successes, and advocate for reduced food loss and waste. Champions convene several times each year to assess global progress, share experiences, identify opportunities for advancement, and publicize analyses, success stories, and barriers to be addressed. Visit www.champions123.org for more information.

  Their newest report, “The Business Case for Reducing Food Loss and Waste,” describes the economic benefits of taking action and outlines steps companies can take to begin food waste reduction efforts.

- **Other useful resources**
Overfishing

More than 85 percent of the world's fisheries have been pushed to or beyond their biological limits and are in need of strict management plans to restore them, according to World Wildlife Fund (WWF). The tourism industry, especially hotels and restaurants, is contributing to the depletion of fish stocks. Here are three ways tourism businesses can take action to help stop overfishing:

• **Sustainable purchase of seafood**
  Restaurants and other tourism businesses can use sustainable seafood certification programs when purchasing seafood. Look for eco-certification programs that are third party verified, not industry run. One example is the [Marine Stewardship Council (MSC)](https://www.msc.org/about-us/blue-msc-ecolabel-traceable-sustainable-seafood), an international ecolabel and fishery certification program that recognizes and rewards sustainable wild fishing practices. The blue MSC label is given to fisheries meeting standards for sustainability that ensure fish are caught at levels that allow fish populations and their ecosystems to remain healthy and productive. Nearly 15,000 seafood products worth $3 billion in annual sales bear the MSC label. See: [https://www.msc.org/about-us/blue-msc-ecolabel-traceable-sustainable-seafood](https://www.msc.org/about-us/blue-msc-ecolabel-traceable-sustainable-seafood).

  Another comprehensive program for wild and farmed seafood is the [Monterey Bay Aquarium Seafood Watch](https://www.seafoodwatch.org). Its handy pocket guide lists which seafood items are “Best Choices” or “Good Alternatives,” and which ones to “Avoid.” More than one thousand restaurants across the U.S. belong to the Seafood Watch Partnership Program. Members no longer serve items from Seafood Watch’s red "Avoid" list, they train staff, and help raise awareness in their communities. See: [seafoodwatch.org](https://www.seafoodwatch.org).

• **Catch-and-release fishing**
  Increasingly, sport fishing companies are adopting catch-and-release practices. However, even if a released fish swims away, scientific studies have found that many don’t survive because they are too exhausted or have suffered trauma or injury. [Angling Unlimited](http://anglingunlimited.com/fishing/catch-release-properly/), a sport fishing company in Sitka, Alaska, has put out a guide to “Responsible Catch and Release.” See: [http://anglingunlimited.com/fishing/catch-release-properly/](http://anglingunlimited.com/fishing/catch-release-properly/).

  An example of business support for sustainable fishing practices is [Turneffe Flats Resort](http://www.tflats.com/) in Belize. This Green Globe certified fishing resort on a fragile, sea level atoll, led efforts to protect bonefish, permit, and tarpon as "Catch & Release" species throughout Belize. IT also spearheaded a successful campaign to declare the country’s largest marine reserve. See: [http://www.tflats.com/](http://www.tflats.com/).

• **Supporting sustainable fishing communities**
  A number of NGOs, including WWF and Environmental Defense Fund, are working with fishing communities to help ensure their fishing practices are sustainable and to provide alternative livelihoods when necessary, including jobs in tourism. For details of WWF and EDF sustainable tourism programs. See: [https://www.worldwildlife.org/threats/overfishing](https://www.worldwildlife.org/threats/overfishing) and [https://www.edf.org/oceans/how-turn-around-overfishing-crisis](https://www.edf.org/oceans/how-turn-around-overfishing-crisis).
Tourism businesses can play a role as well. In the Dominican Republic, for instance, the Puntacana Foundation, which is supported by local resorts, pays local fishermen to catch lion fish, an aggressive invasive species. It also trains fishermen sustainable practices for catching lobster and how they can respect no-fishing zones and seasons. See: http://puntacana.org/environment/pesca.
Recreation

Sustainable Wildlife Viewing

In many tourism destinations around the world, opportunities to view or interact with wildlife are commonly offered and very popular with many consumers. The World Tourism Organization (UNWTO) estimates that 12 million trips annually or 7 percent of global tourism involves wildlife viewing and that wildlife viewing is growing at about 10 percent a year. In Africa, wildlife safaris total 80 percent of all trips sold by tour operators. But in many places on land and in water, wildlife is under severe threat from a multitude of sources, including habitat loss, pollution, climate change, poaching, and illegal trafficking. Tourism, poorly controlled and unregulated, also can harm wildlife. Here are some examples of organizations promoting codes of conduct and best practices for sustainable wildlife viewing:

- **ABTA’s Animal Welfare Guidelines**
  The Association of British Travel Agents (ABTA), has developed, together with the animal welfare organization Born Free, a series of guidelines for tour operator and tourist interaction with wildlife. ABTA’s publications include *Global Welfare Guidance for Animals in Tourism, Wildlife Viewing,* and *Unacceptable and Discouraged Practices,* among others. These guidelines provide specific actions for businesses, based on the type of wildlife viewing. See: https://abta.com/working-with-the-industry/animal-welfare.

- **SEEtheWILD**
  SEEtheWILD has produced Wildlife Guidelines and the KEEPitWILD pledge of ethical viewing and interaction standards to ensure tour operators deliver wildlife interactions that are responsible, sustainable, and in line with best-in-class practices. It has guidelines for tourism businesses and travelers covering a range of animals and conditions, including those for wildlife in captivity, wildlife safaris, coral reefs, sea turtles, manatees, and elephants, among others. See: http://seethewild.org/wildlife-guidelines/.

- **Marine Wildlife Watching Guidelines for Vessel & Zodiac Operations**
  The International Association of Antarctica Tour Operators (IAATO) has developed Wildlife Watching Guidelines to provide guidance to vessel operators while viewing cetaceans, seals, and birds in their marine environment. The guidelines seek to minimize wildlife disturbance; protect cetaceans, seals, and seabirds while ensuring a high-quality wildlife-watching experience through responsible observation; and avoid harmful impacts on marine wildlife populations. See: https://iaato.org/wildlife-watching-guidelines.

- **U.S. National Oceanic and Atmospheric Administration’s (NOAA) Ocean Etiquette**
Ocean Etiquette is a stewardship program aimed at promoting responsible encounters with marine wildlife and their habitats in national marine sanctuaries. Designed to provide guidance on minimizing impacts to marine life and habitats, Ocean Etiquette allows businesses and individuals who visit, works, or plays in the marine environment the opportunity to learn how they can make a difference in protecting the ocean. By making these direct connections between human behavior and environmental protection, the Ocean Etiquette program empowers visitors with specific knowledge of how to protect marine wildlife and habitats. See: https://sanctuaries.noaa.gov/protect/oceanetiquette.html.

- **Whale SENSE**
  Sponsored by NOAA Fisheries and the Whale and Dolphin Conservation, Whale SENSE is a voluntary education and recognition program offered to commercial whale watching companies in the U.S. Atlantic and Alaska Regions. Developed in collaboration with the whale watching industry, the program recognizes whale watching companies committed to responsible practices. Participating companies agree to: 1) Stick to the regional whale watching guidelines; 2) Educate naturalists, captains, and passengers to have SENSE while watching whales; 3) Notify appropriate networks of whales in distress; 4) Set an example for other boaters; and 5) Encourage ocean stewardship. Upon successful completion of training and evaluation, Whale SENSE businesses receive materials identifying them as active Whale SENSE participants featuring the Whale SENSE logo and current calendar year. See: https://whalesense.org.

- **Mindful Birding Project**
  One of the many organizations promoting responsible bird watching is the Mindful Birding Project, which has compiled an *Abridged List of Ethical Birding Guidelines*. These guidelines were compiled from an extensive online search of guidelines used by organizations, birding festivals, and nature tour operators. They encourage tour operators and birdwatchers to have gratifying birding experiences while maintaining the ability of birds to behave naturally. See: http://www.montereybaybirding.org/download/Ethical%20Birding%20Guidelines%20from%20Mindful%20Birding.pdf.
Illegal Wildlife Trade

Despite national and international laws protecting wildlife, the illegal trade in wildlife is driving many at-risk species closer to the brink of extinction. In addition to ecological threats, illegal wildlife trade contributes to economic, development, and security risks. Tourism and travel often overlap with wildlife issues and, in many areas, are dependent upon wildlife. The travel sector can play a significant role in fighting against illegal wildlife trade. According to CITES Secretary-General John Scanlon, “How you engage with your staff, your customers and local communities, and where and how you choose to invest, can change the trajectory of the survival of our wildlife like no one else can—and you will be protecting the natural assets that underpin wildlife based tourism.” He encouraged the tourism and travel sector to actively promote responsible wildlife-tourism, educate staff, invest locally, and raise awareness among tourists. Campaigns that center upon this issue include:

- **Wild for Life**
  The Wild for Life campaign identifies ignorance and indifference as drivers of illegal wildlife trade and seeks to combat their effects through education and advocacy. The campaign was created to increase awareness, strengthen laws, and support local communities’ efforts to end illegal wildlife trade. It also encourages individuals to become better informed, spread the word, and report crimes. Collaborators on the campaign, including Kenya Airways, have pledged to educate citizens, strengthen policies, develop best business practices, and help rural communities. Please visit [www.wildfor.life](http://www.wildfor.life) for more information and [www.wildfor.life/campaign-collaborators](http://www.wildfor.life/campaign-collaborators) to become a collaborator.

- **Wildlife Trafficking Alliance’s “Be Informed, Buy Informed” campaign**
  The U.S. Wildlife Trafficking Alliance is a voluntary coalition dedicated to minimizing illegal wildlife trade within the United States and includes government, civil society, and private sector partners. The “Be Informed, Buy Informed” campaign emphasizes the influence that demand plays in wildlife trade and seeks to create better-informed consumers, including tourists and tourism businesses. The campaign provides an assortment of resources, tips, and information to help tourists make more informed choices. These resources can be found at [www.uswta.org/buyinformed/](http://www.uswta.org/buyinformed/). By making these resources available to tourists, businesses can help aid in the fight against the illegal wildlife trade. Members of the Wildlife Trafficking Alliance also have access to a toolkit designed for travel and tourism companies, which can be found at [www.uswta.org/travel-tourism-toolkit/](http://www.uswta.org/travel-tourism-toolkit/).

- **Born Free**
  The Born Free Foundation is an international charity with campaigns centering upon wildlife rescue, care, conservation, and education. Their wildlife trade campaign focuses on awareness raising and widespread international cooperation to address the major problems that drive illegal trade—high value products, wild pets, and bushmeat. In addition to this high-profile campaign, Born Free created a report called “End Wildlife Trafficking” that was used to develop the EU’s Action Plan Against Wildlife Trafficking. More information on the campaign and the report can be found at [http://www.bornfree.org.uk/campaigns/wildlife-trade/](http://www.bornfree.org.uk/campaigns/wildlife-trade/). Born Free has also worked with ABTA (a
British tour operators’ association) to create a best practice handbook entitled “Global Welfare Guidance for Animals in Tourism” that touches upon the illegal wildlife trade in relationship to other related wildlife issues. This handbook can be downloaded by using the following link: https://c0e31a7ad92e875f8eaa-5facf23e658215b1771a91c2df41e9fe.ssl.cf3.rackcdn.com/publications/GWforAnimalsinTourism_web.pdf.
Responsible Diving and Snorkeling

Diving and snorkeling are among the most popular outdoor recreational activities and attract millions of tourists each year. However, with the increasing number of threats to coral reefs (such as ocean acidification, overfishing, and coastal development), promoting sustainable practices has become key to sustaining the diving and snorkeling tourism industry. Several programs exist to support responsible diving and snorkeling within the tourism industry:

- **Green Fins**
  Green Fins was created to protect and conserve coral reefs and consists of a comprehensive approach to reduce the environmental impacts of diving and snorkeling. Dive centers, communities, and local and national governments are encouraged to work together within the Green Fin network and members receive the training and tools necessary to improve environmental education and awareness. Dive centers and other tourism businesses are required to follow a Code of Conduct to mitigate negative impacts of marine tourism with annual assessments conducted to help achieve the Code’s goals. Among other things, the Code requires participation in regular underwater cleanups, prohibition of the sale of coral and other marine life, operation under a “minimum discharge” policy, and provision of educational materials to staff and guests. More information and resources, such as a comprehensive toolkit, assorted guides, and operational handbooks, can be found on [www.greenfins.net](http://www.greenfins.net). Also, a short video about Green Fins created by syndicated cartoonist Jim Toomey can be found at [www.unep.org/northamerica/toomey](http://www.unep.org/northamerica/toomey).

- **Blue Star**
  Created by the Florida Keys National Marine Sanctuary, Blue Star is a voluntary recognition program that recognizes and awards a logo to tourism operators who meet the criteria for responsible diving and snorkeling practices. The Blue Star criteria for participation is available on their website and outlines best practices for tour operators and provides a basis on which similar programs may be based. See [www.sanctuaries.noaa.gov/bluestar/](http://www.sanctuaries.noaa.gov/bluestar/) for general information about Blue Star and [www.sanctuaries.noaa.gov/bluestar/become.html](http://www.sanctuaries.noaa.gov/bluestar/become.html) for the program criteria.

- **Coral Reef Alliance**
  The Coral Reef Alliance is a reef conservation organization involved in improving reef management, reducing local threats to reefs, and ensuring sustainable tourism, among other goals. To support tour operators, park managers, and travelers, the Coral Reef Alliance has created guides based on best practices for diving, snorkeling, and underwater cleanup. These resources provide basic guidance for activities around coral reefs and can also be adapted for outreach and/or educational purposes. To download the guidelines, visit [www.coral.org/guidelines-for-tourists/](http://www.coral.org/guidelines-for-tourists/).

- **Other useful resources**
Project AWARE’s 10 tips for divers to protect the ocean:
https://www.projectaware.org/action/pledge-follow-project-awares-10-tips-divers-protect-ocean-planet
Resource Reduction and Management

Water and Energy

The tourism industry is a large consumer of water and electricity. Water scarcity is a recognized global problem, with demand for water projected to exceed supply by 40% by 2030. In most countries, water consumption per guest in hotels vastly exceeds that of the local population. Island nations and tourism destinations can be those most prone to water shortage, particularly where the tourism season coincides with the driest months.

Excessive use means water shortages can become a problem – operational and cost - for hotels and can lead to conflicts over water from other users, in particular local communities. According to the International Tourism Partnership (ITP), the hotel sector is lagging other industries in its approach to water stewardship.

Energy is equally vital to tourist lodging business operation, with electricity being one of the most important energy sources. Energy costs in hotels typically amount to 3-6% of overall operational costs and therefore are often dismissed as too insignificant to bother. However, they represent a substantial proportion of controllable costs – often second only to labor costs. In addition, electricity is often generated through the burning of fossil fuels, such as coal, oil, and natural gas, resulting in the release of carbon dioxide to the atmosphere which contributes to climate change. Non-fossil fuel, renewable energy sources are increasingly available.

Listed below are some of the organizations and projects that are helping tourism businesses reduce energy and water consumption, and convert, where possible, to renewables.

- **Green Hotelier’s Guide to Water Management and Responsibility in Hotels**

- **Caribbean Hotel Energy Efficiency and Renewable Energy Action (CHENACT)**
  CHENACT is an energy efficiency project with the goal to improve resource consumption by small and medium sized hotels (less than 400 rooms) in the Caribbean through more affordable and predictable energy costs and improved use of energy with the emphasis on renewable energy and micro-generation. Such reductions also assist Caribbean governments to meet their international obligations in emissions of greenhouse gases (GHG) and to phase-out of ozone depleting substances (ODS). The project has included over 200 full hotel audits and walk-thru hotel assessments, primarily in Barbados, Jamaica, and The Bahamas. Additional audits have also been conducted on St. Kitts & Nevis, Antigua & Barbuda, St. Lucia, St. Vincent & the Grenadines, and Grenada. For more details and resources see: [www.chenact.com](http://www.chenact.com).
• **ITP’s Hotel Water Management Initiative**  
The London-based NGO, International Tourism Partnership (ITP) has launched the Hotel Water Management Initiative (HWMI) to develop a methodology and calculation tool to enable hotel companies and individual properties to measure and report on water consumption in a consistent way. The HWMI Working Group responsible for the creation of the tool is composed of some 18 leading hotel companies with KPMG as technical consultants and a stakeholder steering group of global experts, including the Stockholm International Water Institute, Water Footprint Network, World Resources Institute, and Carbon Trust. For HWMI and other ITP water programs, see: [https://ceowatermandate.org/files/Huijbrechts_and_Hughes_Stockholm_%202016.pdf](https://ceowatermandate.org/files/Huijbrechts_and_Hughes_Stockholm_%202016.pdf) and [https://www.tourismpartnership.org/water-stewardship/](https://www.tourismpartnership.org/water-stewardship/).

• **Cruise Ship Report Card by Friends of the Earth (FOE)**  
FOE’s Cruise Ship Report Card rates the environmental and human health impacts of cruise lines and individual cruise ships. This provides vacationers with information to make more responsible choices by providing information about the environmental record of particular ships. The Report Card is also intended to highlight those ships with the best environmental records and to promote competition among cruise lines to improve performance. The 2016 report card ranked 17 major cruise lines and 171 cruise ships according to four environmental criteria: sewage treatment, air pollution reduction, water quality compliance, and transparency. See: [https://foe.org/cruise-report-card/](https://foe.org/cruise-report-card/).

• **Energy Efficiency in the Kitchen**  

• **Hotel Energy Solutions**  
Hotel Energy Solutions (HES) is a World Tourism Organization (UNWTO)-initiated project in collaboration with a team of United Nations and European Union (EU) agencies involved in tourism and energy. The project delivers information, technical support, and training to help small and medium enterprises (SMEs) in the tourism and accommodation sector across the EU to increase their energy efficiency and renewable energy usage. For instance, HES provides an online mitigation toolkit to help hotels reduce their carbon footprint and operations costs, thus increasing business profits. For this and other resources, see: [http://hotellenergysolutions.net/content/about-us-6](http://hotellenergysolutions.net/content/about-us-6).
Solid Waste and Plastics

The tourism is a major generator of waste. UN Environment estimates that 4.8 million tons (14% of all solid waste) is produced each year solely by international tourists. A hotel guest generates about 2.2 lbs. (1 kg) of waste per night, more than half of it in paper, plastic, and cardboard. One of the most visible sources of waste are plastic water bottles which tourists help to spread around the world. Sales of plastic drinking bottles totaled 480 billion in 2016, up from 300 billion a decade earlier. By 2021, the number will grow to over 580 billion. In the U.S. only 23 percent of plastic water bottles are currently recycled. And every year, the North American cruise industry generates an estimated 50,000 tons of food waste and 100,000 tons each of glass, tin, and burnable waste.

There are a growing number of corporate and NGO initiatives focused on solid waste and plastics reductions, reuse, and/or renewables. The most systematic approach is for tourism businesses and destinations to become certified under one or more of the sustainable tourism certification programs recognized by the Global Sustainable Tourism Council (GSTC). See: https://www.gstcouncil.org/about/about-us/.

  Each chapter identifies the problem associated with the relevant environmental process, recommends possible actions, and provides sources of additional information. These chapters include solid waste management, wastewater management, lodging infrastructure construction, energy management, and water management and use. See: http://ra-training-library.s3.amazonaws.com/tropical_forest_eng.pdf.

- **Ban the Bottle Campaign**
  The Ban the Bottle Campaign is one of a growing number of initiatives advocating bans on single-use plastic water bottles and thereby reducing garbage and waste in landfills. This campaign promotes the use of tap water, filters, and reusable metal or ceramic bottles. While not targeted specifically at the tourism industry, Ban the Bottle contains useful suggestions for building awareness among businesses, communities, and the public through social media, public meetings, pledges, and a range of sustainable alternative products including renewable water bottles. See: https://www.banthebottle.net/ban-the-bottle-campaign/. A growing number of tourism businesses are also providing their guests with renewable water bottles and offer water filling stations. These include Bucuti & Tara Resort in Aruba and Golden Door Spa in California.

- **Six Senses’ Earth Lab**
  Among the most comprehensive initiatives by tourism businesses is Six Senses Hotels Resorts Spas’ innovative Earth Lab. It has adopted a philosophy of Zero Waste, meaning there is no waste and all
materials must have a new purpose. The project helps Six Senses properties showcase their sustainability efforts to reduce consumption, produce locally, and support communities and ecosystems. Guests are invited to visit Earth Lab to reconnect with the natural world and learn some simple life-hacks that will allow them to make a difference. Earth Lab activities include:

- Water bottled on site eliminating the transportation impacts and use of plastic water bottles
- Alternatives to plastic straws, including paper, bamboo, and lemongrass
- Food waste is composted and used to fuel extensive organic gardens
- Glass (where recycling is not available) is crushed and upcycled into flower pots, paving stones, and light fixtures
- Renewable energy is produced from solar and biomass


- **Fundación Grupo Puntacana’s Goal of Zero Waste, Dominican Republic**
  The massive tourism complex at Punta Cana has an ambitious long-term goal of becoming a Zero Waste community. The airport and its arriving planes (up to 80 planes a day), dozens of resorts, and many businesses and vacation homes all send their solid waste to the privately-owned Center for Recycling (CRI), which sorts and packages the materials into compacted bales and sells what is recyclable. Today, Grupo Punta Cana diverts about 60 percent of its waste to the CRI, greatly reducing the amount ending up in landfills and illegal dumps. The Zero Waste initiative has become a model for similar projects in other tourism locations around the island and internationally. See: [http://www.puntacana.org/environment/zero-waste](http://www.puntacana.org/environment/zero-waste).
Marine, Shoreline, and Beach Litter

Marine litter poses a threat to tourism in a number of ways. Most commonly, debris washed ashore causes beaches to become unattractive and potentially hazardous, thereby deterring tourists. The most common and persistent type of marine litter is plastics, which represents up to 90 per cent of the total ocean litter worldwide. An estimated 80% of marine litter is from land-based sources and tourists and the tourism industry are major generators of litter, further intensifying the problem. Additionally, over 600 marine species, 15% of which are endangered, are harmed by marine litter through ingestion and/or entanglement. These negative impacts to marine ecosystems can cause a reduction in marine life, resulting in a decline in the number of tourists participating in activities such as diving or fishing. Marine litter campaigns and resources include:

- **CleanSeas**  
  To address the plastic litter issue, UN Environment recently launched the CleanSeas campaign. The campaign focuses on eliminating single-use plastics and microplastics found in personal care products by 2022. It targets change at multiple levels and calls for governments, industry, and consumers to make commitments to take action. For more information, or to make a commitment, such as organizing a beach cleanup, please visit www.cleanseas.org.

- **Trash Free Seas**  
  The Ocean Conservancy expanded their International Coastal Cleanup program by creating the Trash Free Seas campaign, which seeks to spread awareness of the growing marine litter problem by focusing on changing consumer—including tourist—behavior. The Trash Free Seas Alliance was also created to help prevent marine litter, in this case by uniting industry and science leaders. Members of the Alliance pledge to work towards solutions leading to the elimination of marine litter by reducing and reinventing damaging practices through collaboration and innovation. See: www.oceanconservancy.org/trash-free-seas/.

- **Blue Flag**  
  Operated under the Foundation for Environmental Education, Blue Flag is a world-renowned eco-label awarded to members meeting and maintaining strict environmental, educational, safety, and access-related standards. Blue Flag has worked with experts to develop membership criteria for beaches, marinas, and boating operators, which can be found by visiting http://www.blueflag.global/criteria/. Blue Flag also offers additional resources, such as a best practices guide, beach clean-up manual, and a measurement system for beach litter. All of these resources, as well as others, can be found at http://www.blueflag.global/publications/. Additionally, the Blue Flag application procedure can be found by visiting http://www.blueflag.global/application-procedure/.

Source: 2017 Marine Plastics Innovation Challenge
Special Monitoring & Coastal Environment Assessment Regional Activity Center
The Special Monitoring & Coastal Environmental Assessment Regional Activity Center (CEARAC) is one of four regional centers that carry out activities of the Action Plan for the Protection, Management, and Development of the Marine and Coastal Environment of the Northwest Pacific Region (NOWPAP), which was adopted by UN Environment in 1994. They have since developed a number of resources on marine litter, including monitoring guidelines, technical booklets, and public awareness materials, among others, which can be found at http://cearac.nowpap.org/marinelitter/index.html.

Of interest is their updated “Marine Litter Guidelines for Tourists and Tour Operators in Marine and Coastal Areas.” The guidelines explain how tour operators can participate in activities such as minimizing waste generation, educating tourists, and cooperating with local governments to reduce the impacts of tourism on the environment. These guidelines can be found at: www.cearac-project.org/RAP_MALI/Tourism_Guidelines_(2011).pdf.

Other useful resources:
- “Two Minutes on Oceans with Jim Toomey” video series—Marine Litter video: http://www.unep.org/northamerica/toomey
Climate Change

Tourism is both a victim of and contributor to climate change. According to UNWTO, tourism is responsible for about 5 percent of global CO₂ emissions and in terms of radiative forcing, tourism contributes 4.6 percent to global warming. The transport sector, including air, car and rail, generates the largest proportion, accounting for 75 percent of all tourism emissions. Air travel is the main tourism contributor to global warming: it is responsible for 40 percent of the total carbon emissions caused by this sector, and 54-75 percent of radiative forcing.

The accommodation sector accounts for approximately 20 percent of emissions from tourism. This involves heating, air-conditioning and the maintenance of bars, restaurants, pools and so on. Clearly, this varies according to the location, size, and type of the accommodation. Further, tourism activities and attractions such as museums, theme parks, events, or shopping are estimated to account for approximately 3.5 percent of the tourism sector’s emissions.

At the same time, climate change adversely effects tourism including through, for instance, increasingly fierce storms, sea level rise, desertification and the scarcity of water, deforestation and the harm to biodiversity, and melting of snow and glaciers.

There are a wide range of voluntary carbon offset programs and tools available to tourism businesses and travelers, as well as initiatives to help companies measure and reduce the carbon footprint of their operations. Below are examples of both and of one major company that is systematically working to cut its greenhouse gas (GHG) emissions.

- **Hotel Carbon Measurement Initiative (HDMI)**
  The Hotel Carbon Measurement Initiative (HDMI) is a methodology and tool which enables hotels to measure and report on carbon emissions in a consistent way. It was developed by the International Tourism Partnership (ITP) and the World Travel & Tourism Council (WTTC) in partnership with KPMG and 23 global hotel companies. HDMI can be used by any hotel anywhere in the world, from small guesthouses to 5-star resorts. Over 24,000 hotels globally are using HDMI. See: [https://www.tourismpartnership.org/carbon-emissions/](https://www.tourismpartnership.org/carbon-emissions/).

- **Hotel Footprinting Tool**
  The Hotel Footprinting Tool allows hoteliers to search the range of carbon emissions and energy usage among hotels around the world. There are two ways to search for hotel footprints. First, the Benchmarking function shows the carbon and energy footprint data for specific geographies. This is ideal for hoteliers wanting to compare their footprint with those of other hotels in their region and market segment. Second, the Footprinting function allows hoteliers to calculate the carbon footprint of hotel stays across multiple destinations using the Hotel Carbon Measurement Initiative (HDMI) methodology. This is useful for corporate reporting. See: [https://www.hotelfootprints.org/](https://www.hotelfootprints.org/).
• **Carbon Offset for Consumers and Businesses**

Buying high-quality carbon offsets can help businesses and consumers take more responsibility for their personal emissions, including for air travel. The quality of offsets can vary widely. **Offset Consumer** lists the eight best carbon offset providers. It recommends JP Morgan Climate Care and NativeEnergy as the top two providers to handle consumer offsets. Both have received high ratings and are reasonably priced. In addition, both these providers also assist businesses. Climate Care’s online business pages help businesses “tackle climate change, offering the highest quality emission reductions coupled with a supporting wealth of experience in the carbon markets.” NativeEnergy has a business calculator to help businesses and corporations “meet their sustainability goals.” See: [http://www.jpmorganclimatecare.com/business/](http://www.jpmorganclimatecare.com/business/); [http://www.nativeenergy.com/carbon-offsets-for-businesses.html](http://www.nativeenergy.com/carbon-offsets-for-businesses.html); [http://www.offsetconsumer.org/](http://www.offsetconsumer.org/).

• **ICAO/IATA Goals: Reducing Aviation’s Carbon Footprint**

The International Civil Aviation Organization (ICAO) and International Air Transportation Association (IATA) have established three important goals for reducing aviation’s carbon footprint between 2010 and 2015. These are: (1) by 2020 to improve fuel efficiency and reduce GHG emissions by 1.5 percent per year; (2) after 2020, to set a cap on net annual emissions of GHGs, thereby ensuring carbon neutral growth; and (3) by 2050, to reduce net annual emissions of GHGs by 50 percent compared to 2005 emissions. The ICAO/IATA goals are to be achieved through improved technology including sustainable low-carbon fuels, more efficient aircraft operations, infrastructure improvements, and a single global market-based carbon offsetting scheme to fill the remaining emissions gap. In 2016, ICAO member states adopted the Carbon Offset and Reduction Scheme for International Aviation (CORSIA), the first global scheme covering an entire industrial sector. CORSIA is set to commence with a voluntary period (2021-2026) after which it will become mandatory. See: [http://www.iata.org/policy/environment/Pages/climate-change.aspx](http://www.iata.org/policy/environment/Pages/climate-change.aspx).

• **Whistler Blackcomb’s Zero Operating Footprint**

Whistler Blackcomb ski resort in British Columbia, Canada has set its mission as achieving a Zero Operating Footprint, including zero carbon, zero waste, and zero emissions through the help of its employees, guests and local community. Named Canada’s “Greenest Employer” in 2017, Whistler Blackcomb currently employs the 4 R’s with regards to waste (reduce, reuse, recycle, repurpose) with an emphasis on the recycling component. Since 2000, Whistler Blackcomb has reduced its waste by more than 70 percent. In 2010, a micro hydro renewable energy plant, situated in the middle of Whistler Blackcomb underneath the PEAK 2 PEAK Gondola, began production and is now returning to the grid the equivalent of Whistler Blackcomb’s annual demand. Not only is a Zero Operating Footprint possible, it represents good business, saving the company over $1 million annually. In October 2016, Vail Resorts in Colorado and Whistler Blackcomb completed a “strategic combination,” becoming a single company with a shared vision for achieving a zero operating footprint. Vail has made an “epic promise” to have a zero footprint” by 2030. According to the Vail Resorts “We plan to achieve zero net emissions by doubling down on energy efficiency, purchasing 100 percent renewable energy and investing in programs such as tree planting.” See: [https://www.whistlerblackcomb.com/about-us/environment](https://www.whistlerblackcomb.com/about-us/environment) and [http://www.epicpromise.com/environment/zero-footprint/](http://www.epicpromise.com/environment/zero-footprint/).


7 Radiative forcing is the difference between sunlight (insolation) absorbed by the earth and energy radiated back to space. Positive radiative forcing means the earth receives more incoming energy from sunlight than it radiates to space. This net gain of energy will cause warming.


9 Carbon offsets are the reduction of greenhouse gas emissions somewhere else in order to help "offset" one’s own emissions. Individuals, businesses, and organizations can buy offsets from a variety of offset providers, who invest that money in renewable energy, energy conservation projects, etc.