

# Winning with Sustainable Blue Tourism Practices

- IN BOATING AND SAILING



A guide on best practices for small-scale cruises, yachting, and sailing - designed to inspire effective, scalable solutions in sustainable marine and coastal tourism.



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# CONTEXT

“

*"A destination ultimately loses its profitability when it loses its beauty."*

”

– Ally Dragozet, *Sea Going Green*

Pollution, depletion of natural resources, and rising carbon emissions are significant challenges our planet is facing today.

These issues particularly impact the coastal and marine tourism industry, which finds itself increasingly vulnerable. Extreme weather events, sea-level rise, beach erosion, acidification, and ocean biodiversity loss are not only environmental concerns but also contribute to increased operational costs, disrupted tourist attractions, and strain on communities and business owners.

The way in which these impacts continue to unfold will be shaped by the actions taken by key stakeholders to mitigate their environmental footprint and adapt to a changing industry.

This guide serves as a road map and reference for sustainable boating practices across small-scale cruising, yachting, and sailing. It aims to inspire practical actions and showcase what is already being implemented to demonstrate that sustainable cruising is not only necessary but achievable.

## WHAT CAN SUSTAINABILITY DO FOR YOU?



**Reduce your operating costs:** integrating sustainable practices within your business sets a foundation for more efficient operations, which in turn will decrease your overall operating costs.



**Positively impact your brand:** by demonstrating that your tourism business is taking responsibility for its actions and that you are willing to make changes for the greater good, you can positively impact how you are perceived by guests.



**Qualify for tax incentives:** Depending on the country and region that your business is situated, there may be tax incentives or rebates in it for you.



**Increase employee satisfaction and productivity:** Showcasing your sustainability efforts to your employees and engaging them in the process, can increase morale and their overall satisfaction and productivity.



**Mitigate risks and improve resilience:** Adopting sustainability practices ensures that your business is able to identify and mitigate risks and enhancing resilience in times of crisis, making it future proof for years to come.



**Receive awards and accolades:** Set yourself apart from your competition by receiving awards and accolades for your organization's achievements.

# 01 | INTRODUCTION



# BUILDING A SUSTAINABLE FUTURE FOR CRUISING

**Investing in sustainability, means investing in the future of your tourism business**

Although yachting, sailing vessels, and small-scale cruising differ in focus and geography, they share common challenges and opportunities when it comes to advancing social and environmental sustainability.

From cutting emissions to reducing waste and protecting ecosystems, operators have the chance to actively contribute to a more responsible future for travel by water.

This guide presents a curated selection of best practices from across the cruise sector to inspire action - and demonstrate what meaningful change can look like in practice.



# 02 | RESPONSIBLE SOURCING





## RESPONSIBLE SOURCING

Responsible sourcing plays a vital role in advancing sustainability within small-scale cruising. This necessity stems from the recognition that the procurement of goods and services, ranging from food and beverages to furniture and shipbuilding materials, has profound environmental, social, and economic impacts. The choices made in sourcing these materials and products can either contribute to or alleviate issues like environmental degradation, exploitation in supply chains, and local economic disparities.



## Responsibly Sourced Food at Sea

*By prioritizing locally sourced, seasonal, and sustainable food, small cruise operators can reduce their environmental impact, support regional economies, and offer guests a more authentic and responsible dining experience.*

Lindblad Expeditions, operating small ships with fewer than 150 passengers, has developed a clear sourcing philosophy that emphasizes environmental and community responsibility. Their food procurement focuses on fresh, seasonal, and locally sourced ingredients whenever possible, aligning menus with regional availability and reducing transport emissions.

Lindblad works with Monterey Bay Aquarium's Seafood Watch to serve only sustainable seafood, and their chefs adapt itineraries to highlight locally harvested products in destinations such as Alaska, Baja California, and the Galápagos. By sourcing from nearby producers and fisheries, the company strengthens local economies, minimizes packaging, and offers guests a more authentic, place-based dining experience.





## Select Suppliers that prioritize Sustainability



Sail A Vie's commitment to sustainability goes beyond its own operations and into the partnerships it builds throughout its network. The company collaborates with organizations like Green Sail and SeaKeepers, whose missions to protect marine ecosystems and promote eco-friendly maritime practices align closely with its own values.

Sail A Vie also works exclusively with partners who demonstrate responsible tourism practices, and actively raises awareness by providing training and resources on sustainability to collaborators.

Where land-based services are needed, the company prioritizes accommodations certified by internationally recognized bodies such as Travelife or acknowledged by the Global Sustainable Tourism Council (GSTC).

In areas where certifications are not available, Sail A Vie selects accommodations based on their reputation for sustainability, ensuring alignment with its environmental and ethical standards.

## SUSTAINABLE SOURCING

**ASSESSMENT**

		YES	NO
<b>1</b>	Is there a clear mission statement or policy in place for responsible sourcing?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2</b>	Do suppliers align with your sustainability values, including environmental and social responsibility?	<input type="checkbox"/>	<input type="checkbox"/>
<b>3</b>	Are local suppliers or producers prioritized, particularly for food and beverage sourcing?	<input type="checkbox"/>	<input type="checkbox"/>
<b>4</b>	Are suppliers providing products that are reusable, recyclable, or have minimal packaging?	<input type="checkbox"/>	<input type="checkbox"/>
<b>5</b>	Is the sourcing process transparent, with clear information on the origin of goods and materials?	<input type="checkbox"/>	<input type="checkbox"/>
<b>6</b>	Are suppliers committed to ethical practices, including labor rights and health/safety standards?	<input type="checkbox"/>	<input type="checkbox"/>
<b>7</b>	Are you conducting regular audits to ensure compliance with sustainability practices and standards?	<input type="checkbox"/>	<input type="checkbox"/>

# 03 | FUEL REDUCTION





## FUEL REDUCTION AND MITIGATION

Fuel consumption in cruise vessels, including river cruising, yachting, and sailing, plays a notable role in greenhouse gas emissions and marine pollution. While these vessels operate on a smaller scale compared to ocean liners, their environmental impact remains significant, particularly when navigating ecologically sensitive regions. Many smaller ships still rely on conventional marine fuels, and their continuous operations across diverse waterways contribute to cumulative emissions of carbon dioxide, sulfur oxides, and nitrogen oxides, affecting both local air quality and the broader climate. Given their size and flexibility, however, small-scale cruise operators are well-positioned to adopt innovative fuel-saving strategies more quickly than larger fleets. This Fuel Reduction section highlights practical and scalable approaches from improved routing and speed adjustments to alternative fuels that help minimize the sector's footprint while maintaining a high-quality guest experience.

## Fuel Reduction Measures



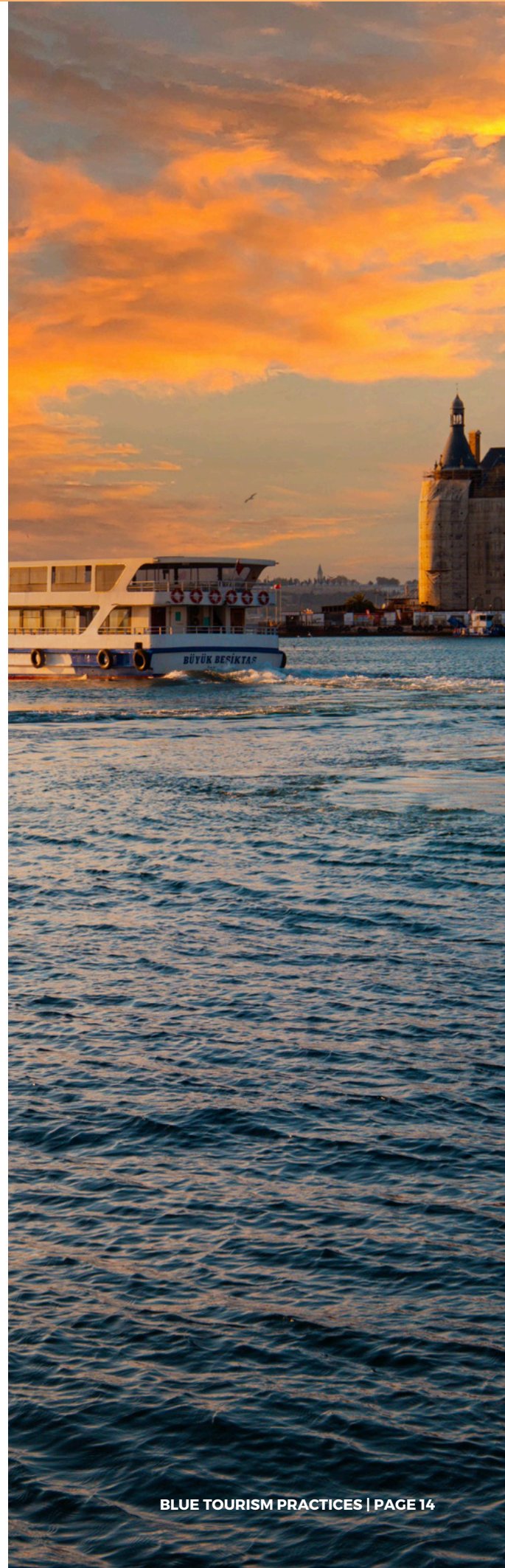
Boat Bike Tours (BBT), a Netherlands-based river cruise operator with a fleet of small ships, has implemented concrete measures to reduce fuel consumption and carbon emissions.

With support from Sea Going Green, BBT developed a Green Transition Strategy that included detailed environmental assessments across the fleet. One key outcome was optimizing cruise routes to reduce daily sailing distances, an effective way to cut fuel use without compromising guest experience.

BBT also reduced average cruising speed, further lowering emissions, and installed real-time fuel monitoring systems on selected vessels to help captains track and adjust consumption.

Sea Going Green facilitated fleet-wide data collection and annual carbon analyses, which enabled BBT to reach a 63% reduction in emissions between 2019 and 2020 and demonstrate how small-scale operators can make measurable progress toward decarbonization.

Under the EU-funded Cross-Re-Tour project, Boat Bike Tours is rolling out an Energy Monitoring Project together with Greenway Foundation and Sea Going Green, with Amendtec and Maritime Solutions providing hardware and software. The project pilots real-time fuel and electricity tracking via onboard dashboards and centralizes data in a Net Zero Cloud, then scales from two vessels to the Dutch fleet of 25.



# CLIENT SPOTLIGHT: BOAT BIKE TOURS GREEN TRANSITION CASE STUDY



[READ THE CASE STUDY](#)



## Utilize Innovative Technologies

*Utilizing innovative technologies such as hybrid or batterie power in maritime vessels significantly enhances sustainability in the boating industry. These technologies reduce emissions and fuel consumption, particularly during low-speed operations and in environmentally sensitive areas. Battery-powered ships offer the added benefit of quieter, emission-free operations, ideal for docking and cruising in fragile ecosystems. As battery technology advances, it becomes more feasible for diverse maritime applications, aligning with environmental regulations and meeting the growing demand for eco-friendly travel.*

### HURTIGRUTEN

Hurtigruten, a leader in sustainable cruising, is pioneering the use of **hybrid technology** in the maritime industry. Their commitment to environmental stewardship is evident in their investment in new hybrid explorer ships. These vessels are equipped with hybrid technology that combines traditional diesel power with battery packs, allowing for significantly reduced fuel consumption and CO2 emissions.

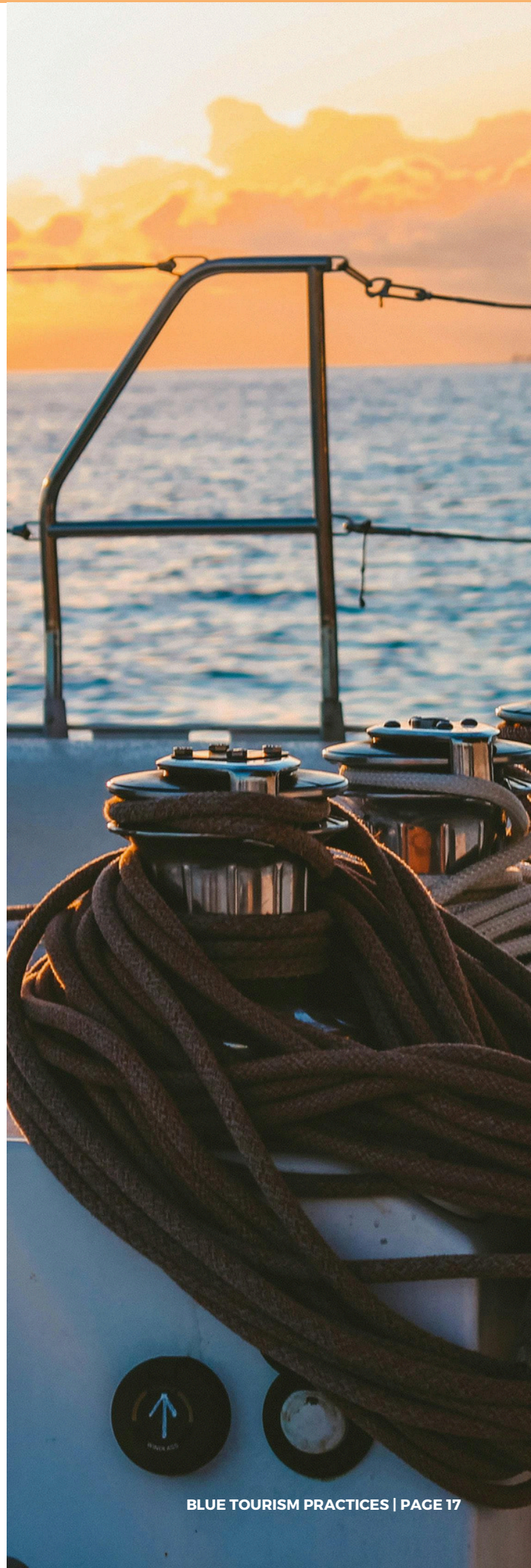
This innovative approach enables the ships to operate more quietly and efficiently, particularly in sensitive polar areas. The hybrid ships are notable for their design, which allows them to cut emissions by approximately 20% compared to ships powered solely by traditional fuels. In total, the two new ships will have a reduced CO2 emission of 6400 metric tons per year. In perspective, this is the same amount of yearly emissions created by 5540 new cars.



Ecoventura, a leader in sustainable tourism in the Galapagos Islands, is actively reducing its carbon footprint through the use of advanced, **eco-friendly engines** on its yachts. These engines are specifically designed to be more fuel-efficient and produce significantly lower emissions compared to conventional marine engines. Notably, Ecoventura employs four-stroke engines, which consume 50 percent less fuel than two-stroke engines. These modern engines are also 70 percent quieter and emit almost no fumes, significantly enhancing the environmental friendliness of their operations.



Havila Voyages is currently operating **battery-powered ships** as part of its efforts to reduce emissions. As highlighted on their website, Havila Voyages has introduced vessels like Havila Capella and Havila Castor, equipped with some of the world's largest battery packs used in ships. These batteries allow the ships to sail through the delicate fjords for up to four hours, entirely emissions-free, ensuring minimal environmental impact in these pristine areas. In combination with liquefied natural gas (LNG), CO2 emissions are reduced by 30 % and NOX emissions by 90 % compared to similar vessels that use fossil fuel. Furthermore, when docked, these ships can connect to local power grids, enabling them to recharge their batteries with clean energy, where available.





## STAR CLIPPERS

Star Clippers stands out in the maritime industry as a pioneer in sustainable cruising, primarily through its utilization of **wind power**. This unique cruise line operates a fleet of tall ships that harness wind energy as their main propulsion method.

This commitment to eco-friendly practices is particularly notable in regions like the Caribbean, where their ships are powered by wind approximately 70% of the time. This reliance on natural wind power significantly reduces the need for fossil fuels,

## Energy Efficient Ship Design

*Reducing carbon emissions can already start with the design of the ship or yacht. An energy-efficient ship design offers several significant benefits such as better fuel efficiency, lower emissions, lower operating costs and an extended ship lifespan.*



With its 'Sea Zero' project, Hurtigruten aims at launching the world's most energy-efficient cruise ship by 2030. This initiative focuses on zero-emission technology with features like retractable sails covered in solar panels, battery banks for energy storage, AI-guided navigation, and advanced hull designs for reducing drag. The vessel will also employ air lubrication to minimize water resistance, contributing significantly to its energy efficiency.

Here are some key aspects of the 'Sea Zero' project:

**Zero-Emission Technology:** The proposed design for the Sea Zero ship includes electric propulsion systems powered by large battery banks. These batteries are intended to be charged while docked at ports, ensuring that the vessel operates without emitting greenhouse gases during its voyages.

**Innovative Design and Features:** Among explored technologies are retractable sails integrated with solar panels, which not only aid in propulsion but also generate significant amounts of renewable energy. The ship will also feature advanced AI for navigation and maneuvering, contra-rotating propellers for enhanced efficiency, and retractable thrusters to minimize drag.

**Sustainability Measures:** Beyond propulsion and power, the project is exploring air lubrication systems to reduce water resistance, special hull coatings to decrease friction, and proactive hull cleaning to maintain optimal performance. The bridge's size will be reduced thanks to AI support, allowing for more guest space and an aerodynamically efficient hull design.

**Guest Involvement in Energy Conservation:** An interactive mobile app will enable passengers to control their cabin's ventilation and monitor their own water and energy usage, further contributing to the ship's overall efficiency.

**Research and Development Phase:** Before the final build, the Sea Zero project will undergo a comprehensive research and development phase lasting until 2025. This phase will focus on refining the technologies proposed in the concept design, including propulsion technology, battery production, hull design, and onboard hotel operations aimed at reducing energy consumption by up to 50% compared to Hurtigruten Norway's current fleet.

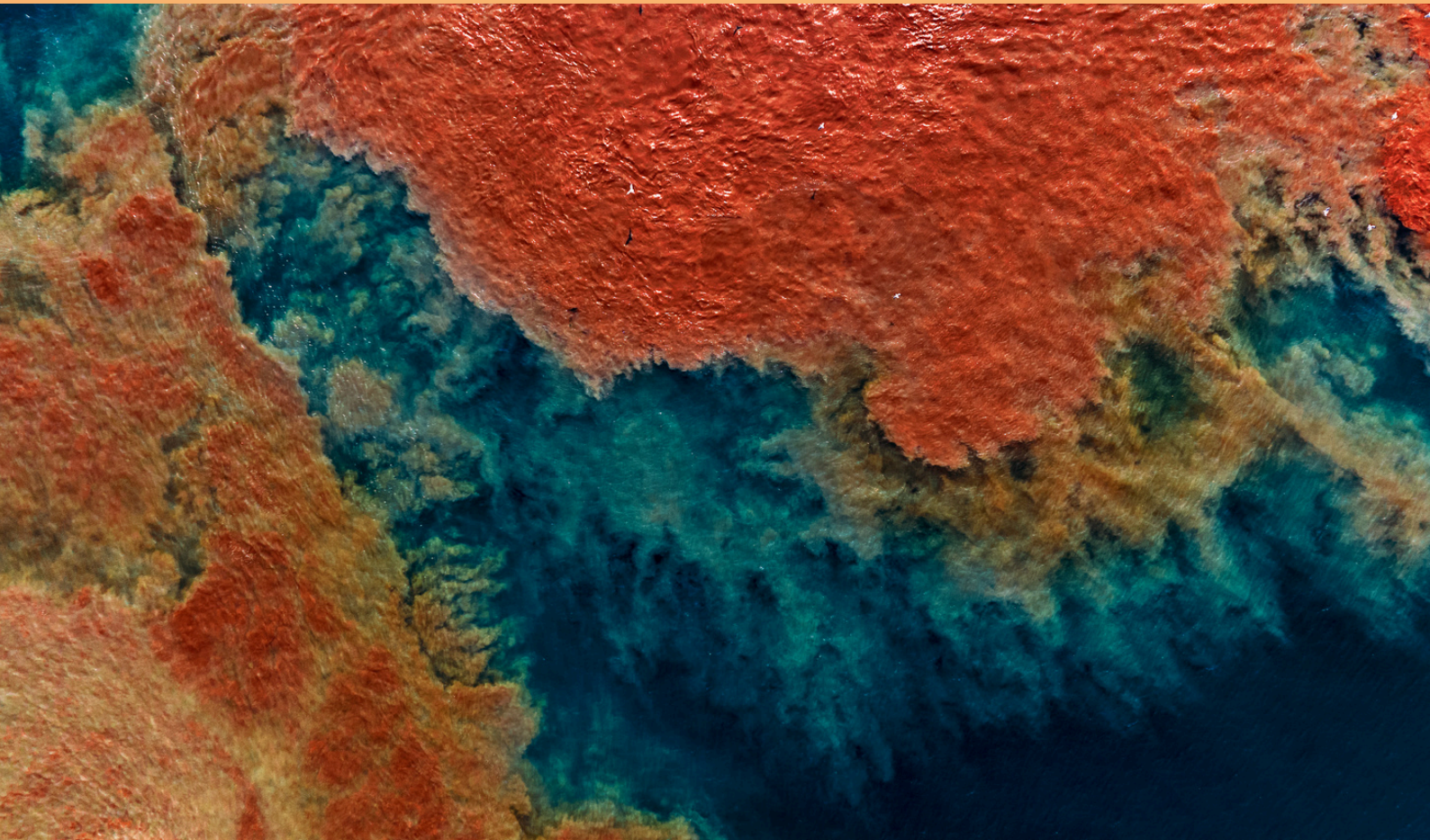
## FUEL REDUCTION

**ASSESSMENT**

		YES	NO
<b>1</b>	Cruise routes and speeds are adjusted to minimize fuel use without compromising experience.	<input type="checkbox"/>	<input type="checkbox"/>
<b>2</b>	The vessel uses or is transitioning to cleaner alternatives like biofuel, wind, or battery-hybrid systems.	<input type="checkbox"/>	<input type="checkbox"/>
<b>3</b>	Ship design or retrofits reduce drag and improve fuel efficiency.	<input type="checkbox"/>	<input type="checkbox"/>
<b>4</b>	Hull and propeller maintenance schedules are in place to minimize resistance and fuel waste.	<input type="checkbox"/>	<input type="checkbox"/>
<b>5</b>	Fuel usage is tracked to support practical decisions (e.g. operational adjustments or crew training).	<input type="checkbox"/>	<input type="checkbox"/>



# 04 | POLLUTION - LIQUIDS



## POLLUTION - LIQUIDS

One of the most pressing issues is the pollution from liquid waste which is released into marine environments by vessels operating in the world's oceans, rivers, and lakes. The negative impacts of liquid pollution extend beyond mere aesthetic concerns, encompassing ecological harm and jeopardizing the balance of marine ecosystems. From oil spills to untreated sewage discharge and chemical pollutants, the repercussions of liquid pollution are far-reaching. Marine life faces the brunt of these adverse effects, with consequences ranging from habitat degradation to the endangerment of countless species. This chapter is about unraveling the solutions that can mitigate and, ultimately, prevent liquid pollution in the small-scale cruise industry.



## Wastewater Treatment

LÜFTNER *LC* CRUISES

Lüftner Cruises, operator of the Amadeus river cruise fleet, equips all its vessels with advanced onboard water treatment systems designed to minimize their impact on European rivers. These systems rely on membrane microfiltration technology, a modern approach that uses physical barriers to separate contaminants from water at a microscopic level. Compared to conventional chemical-based or gravity filtration systems, membrane filtration offers higher purification efficiency, no chemical residue, and more effective recycling of onboard water.

On the Amadeus ships, treated water is reused wherever possible, reducing the need for freshwater intake and avoiding discharge of untreated grey or black water. Additionally, vacuum toilets are installed across the fleet to significantly reduce water usage, and guests are encouraged to reuse towels to cut down on laundry-related wastewater.

## Engine and Operational Water



Ponant's luxury polar vessel LeCommandant Charcot uses a closed-loop bilge water system specially designed for sensitive Arctic operations. It avoids any discharge of untreated water and integrates rigorous environmental monitoring protocols throughout its voyages. The vessel also uses advanced wastewater treatment that enables effluent reuse for laundry, minimizing resource use while protecting sensitive marine environments



## Eco-friendly chemical usage

Using eco-friendly chemicals is essential for environmental protection, regulatory compliance, and human health and safety. These chemicals, designed to be biodegradable and produced sustainably, minimize the impact on marine ecosystems. Compliance with stringent regulations ensures cruise lines and yachts avoid legal issues, while lower toxicity levels contribute to a healthier onboard environment for passengers and crew.

## HERE ARE OUR ECO-FRIENDLY CHEMICAL USAGE TIPS

1. Opt for cleaning and maintenance products that are **certified** as environmentally friendly.

2. Look for **bio-based and biodegradable** cleaning agents and chemicals.

3. **Store chemicals** securely to prevent spills and leaks.

4. Encourage crew members to adopt green cleaning practices.

5. Utilize microfiber cloths and **reusable cleaning materials** to reduce waste.



## Compliance to discharge regulations

The International Convention for the Prevention of Pollution from Ships (MARPOL), contains specific regulations regarding wastewater discharge, including stringent rules for wastewater treatment and the limitation of pollutant emissions. Furthermore, cruise companies and yachts must ensure they adhere to all international, national, and local regulations concerning wastewater disposal. This often includes comprehensive reporting and monitoring requirements. Continuous monitoring of wastewater quality and documentation of disposal practices are crucial. This data must be made available to the relevant authorities.

## SUSTAINABLE WASTE WATER MANAGEMENT

# ASSESSMENT

		YES	NO
1	Does the vessel have a wastewater treatment system that meets or exceeds IMO and local discharge regulations? (e.g. membrane filtration, UV disinfection)	<input type="checkbox"/>	<input type="checkbox"/>
2	Are wastewater discharges restricted in sensitive areas (e.g. MPAs, no-discharge zones), and alternative holding or offloading procedures in place?	<input type="checkbox"/>	<input type="checkbox"/>
3	Is there regular monitoring and documentation of treated wastewater and bilge discharges, available for port inspections and audits?	<input type="checkbox"/>	<input type="checkbox"/>
4	Is treated wastewater reused onboard for non-potable purposes (e.g. technical water, laundry) where feasible?	<input type="checkbox"/>	<input type="checkbox"/>
5	Are only biodegradable, certified eco-friendly cleaning and maintenance products used across housekeeping and engine departments?	<input type="checkbox"/>	<input type="checkbox"/>
6	Are cleaning agents, oils, and maintenance fluids stored securely with leak protection and spill response kits available?	<input type="checkbox"/>	<input type="checkbox"/>
7	Are crew members trained in environmentally responsible wastewater and chemical management procedures?	<input type="checkbox"/>	<input type="checkbox"/>

# LIKE THIS GUIDE SO FAR?



**SAY THANKS -  
BUY US A COFFEE**



Our mission is to alleviate the negative impacts of the tourism industry on the marine environment. We also believe that sustainability should be for everybody no matter how big or small your tourism business is or where you are located around the world. If you find this guide helpful, you can say thanks and help to support our mission by buying us a coffee!

# 05 | POLLUTION - SOLIDS





## POLLUTION - SOLIDS

Solid waste generated from various sources, including packaging materials, single-use plastics, and residues from onboard activities, contributes significantly to the degradation of marine ecosystems. Marine life faces risks such as ingestion and entanglement, and ecosystems suffer from habitat degradation. As we delve into this chapter, the focus is on solutions and best practices to address the challenges associated with solid pollution.

From effective waste disposal methods to new waste initiatives, the objective is to equip you with best practices that minimize the environmental impact of solid waste in yachting and cruises.

## Implement Circular Economy Principles

*Within the cruise industry, the focus of the circular economy is primarily on enhancing resource efficiency and reducing the generation of waste, pollution, as well as carbon emissions. This approach is in line with broader global efforts to promote sustainability and address environmental challenges.*

The concept of circular economy principles involves several fundamental elements.

Firstly, it revolves around the idea of **reusing materials and products**, a practice that effectively reduces the demand for new resource extraction while also minimizing the generation of waste.

Furthermore, circular economy principles aim to **streamline maintenance requirements and reduce downtime**, thereby increasing the overall productivity and efficiency of equipment and infrastructure, all of which ultimately results in lower operational costs.

Lastly, these principles advocate for **extending the lifespan of equipment and infrastructure**. By doing so, we can avoid premature obsolescence and the need for disposal, helping to maintain the value of resources over an extended period of time.

## HURTIGRUTEN

Hurtigruten is applying circular economy principles across several areas of its operations. The company extends the lifespan of its ships and equipment through retrofits instead of replacements and has introduced a zero-food-waste program that includes smaller portion sizes, composting, and using food scraps as fertilizer for gardens that supply its restaurants. These practices support waste reduction and resource reuse onboard.





## Responsible Food Waste Management



Boat Bike Tours works closely with skippers and suppliers to bring more local, regional, and organic products on board, shaping menus that highlight fresh, seasonal ingredients. Meat features less often, with two dinners each week dedicated entirely to creative vegetarian dishes and a stronger focus on fruits and vegetables throughout the trip. Packed lunches come in sustainable packaging, with disposable plastics kept to a minimum, while biodegradable cleaning agents and eco-labelled products are used wherever possible. On board, waste is carefully separated for recycling or composting, making every journey a little lighter on the environment.



Lindblad Expeditions has placed food waste reduction at the core of its sustainability efforts. The company has adopted a comprehensive strategy that spans procurement, storage, menu design, preparation, and guest engagement. Actions implemented across the fleet include:

- Smart procurement and menu planning to reduce surplus, using smaller, more frequent orders of locally sourced food.
- Inventory-based menu adjustments: when overstock is identified, chefs creatively incorporate at-risk ingredients into meals.
- Switch from buffets to plated meals, significantly cutting overproduction.
- Cross-utilization of ingredients, such as turning banana peels into vegan bacon or using vegetable scraps for sauces and stocks.
- Food preservation methods like pickling, fermenting, and curing to extend shelf life.
- Daily guest meal sign-ups to improve portion accuracy and reduce food waste.
- Onboard education sessions like the "War on Food Waste" presentation to build awareness among both crew and passengers.

## Reduce, Reuse, Recycle

*Implementing the principles of reduce, reuse, and recycle brings numerous benefits. It helps minimize waste generation, leading to cost savings on waste disposal and reducing environmental impact by conserving resources and preventing pollution.*

### LÜFTNER CRUISES

Lüftner Cruises has implemented several measures across its AMADEUS river cruise fleet to reduce plastic use and improve onboard recycling. Single-use items are avoided by providing soap and shampoo dispensers in every bathroom, glass water bottles in cabins, and paper straws instead of plastic ones. Tetra Pak water containers will soon be introduced on excursions to further reduce plastic waste. The onboard waste management system is designed to ensure that much of the waste becomes valuable raw material again, ready to be reused and repurposed.

More broadly, applying the principles of reduce, reuse, and recycle can help small-scale cruise operators significantly lower their environmental impact. Reducing waste at the source through bulk purchasing and minimal packaging, reusing materials to extend their lifecycle, and implementing effective onboard recycling systems all contribute to a more circular and resource-conscious operation. When embedded in daily procedures, these actions not only prevent pollution and conserve resources but also support long-term cost savings and demonstrate responsible stewardship of the marine environment.



## SUSTAINABLE WASTE MANAGEMENT

# ASSESSMENT

		YES	NO
1	Is waste sorted onboard into key categories (e.g. recyclables, food waste, general waste) for appropriate handling?	<input type="checkbox"/>	<input type="checkbox"/>
2	Are efforts made to reuse materials or repurpose items to extend their lifecycle onboard or after offloading?	<input type="checkbox"/>	<input type="checkbox"/>
3	Are strategies in place to reduce overall waste generation, such as bulk purchasing, reusable items, or portion control?	<input type="checkbox"/>	<input type="checkbox"/>
4	Are systems in place to process food waste onboard (e.g. composting, biodigesters, dehydrators)?	<input type="checkbox"/>	<input type="checkbox"/>
5	Are durable, reusable solutions used in place of single-use items (e.g. containers, dishware, packaging)?	<input type="checkbox"/>	<input type="checkbox"/>
6	Is a zero-waste or landfill-diversion goal in place, supported by tracking and continuous improvement?	<input type="checkbox"/>	<input type="checkbox"/>
7	Are waste volumes regularly monitored and reduction targets established?	<input type="checkbox"/>	<input type="checkbox"/>
8	Are crew trained regularly on waste handling procedures, including updates and best practices?	<input type="checkbox"/>	<input type="checkbox"/>
9	Is there a trained Environmental Officer or responsible crew member managing solid waste procedures?	<input type="checkbox"/>	<input type="checkbox"/>

# 06 | POLLUTION - NOISE & AIR





## POLLUTION - NOISE & AIR

Having navigated the challenges of solid and liquid pollution, we now turn our attention to two often-overlooked yet equally critical environmental stressors: noise and air pollution. In the context of cruising and boating, these pollutants have far-reaching consequences - from disrupting sensitive marine ecosystems through underwater noise to contributing to local and global air quality degradation through exhaust emissions.

# AIR POLLUTION

## What can be done?

1. **Zero-emission berths in ports:** Use shore-side electricity or alternative clean fuels when ships are at the port to reduce SO<sub>x</sub>, NO<sub>x</sub>, PM, and CO<sub>2</sub> emissions.
2. **Use low-sulfur fuels:** Switch to low-sulfur fuels to reduce air pollutants, improve engine efficiency, and lower maintenance costs.
3. **Scrubbers:** Install scrubbers to reduce SO<sub>2</sub> emissions by 99% and mitigate other pollutant emissions, although concerns about wash-water discharges exist.
4. **Internal engine modifications:** Employ techniques like water injection and exhaust gas recirculation to minimize NO<sub>x</sub> emissions during combustion.
5. **Selective catalytic reduction (SCR):** Treat exhaust gases to significantly reduce NO<sub>x</sub> emissions, particularly effective with low-sulfur fuels.
6. **Develop alternative energy sources:** Explore options like battery electric propulsion, wind propulsion, hydrogen, ammonia, biofuels, and fuel cells for cleaner energy in the future.
7. **Hybridization and electrification:** Implement hybrid and electrification technologies to reduce emissions, regardless of the type of fuel used to generate electricity.

# NOISE POLLUTION

## Quieter Engine Design



To address underwater noise pollution, Bergen Engines, through the EU-funded LowNoiseER project, is pioneering a series of engineering solutions designed specifically for maritime applications.

Some of the most impactful innovations include **Air Lubrication Systems (ALS)**, which release a layer of microbubbles beneath the hull, significantly reducing both drag and underwater noise, while simultaneously improving fuel efficiency.

In addition, **low-noise bevel gears and specially designed engine mounts** are being introduced to minimize mechanical vibrations and structural sound transmission from engines and propellers.

**Onboard monitoring systems** are also being integrated, allowing operators to track real-time acoustic emissions and make operational adjustments to remain within noise thresholds.

Perhaps most groundbreaking is the use of **Distributed Acoustic Sensing (DAS)** - a fiber-optic-based monitoring system that enables continuous and non-intrusive tracking of underwater noise across busy maritime zones, offering precise data without disrupting the marine environment.



## Speed Reduction

Slowing down vessels is a powerful way to reduce underwater noise pollution. According to OceanCare, noise emissions from ships double with every increase of 3 knots in speed. By reducing speeds, particularly in noise-sensitive areas, vessels can significantly lower low-frequency noise levels, which are especially disruptive to large marine mammals like whales and dolphins. These species rely on sound to communicate, navigate, forage, and mate and chronic exposure to ship noise can lead to disorientation, behavioral changes, and habitat avoidance.

For small-scale cruise and yacht operators, lowering cruising speeds is not only a cost-effective emissions strategy but also a direct way to minimize acoustic disturbance in ecologically sensitive regions. When speeds are reduced to 10 knots or less, the acoustic footprint shrinks substantially, allowing marine life to recover and re-establish natural behaviors. In areas where underwater noise has become a constant stressor, implementing slower transit speeds can help restore acoustic sanctuaries, contributing to broader marine biodiversity protection goals.

## SUSTAINABLE POLLUTION - NOISE &amp; AIR MANAGEMENT

**ASSESSMENT**

		YES	NO
<b>1</b>	Vessels avoid running engines in port by connecting to local electricity or using cleaner fuel alternatives.	<input type="checkbox"/>	<input type="checkbox"/>
<b>2</b>	Operators use fuels that produce fewer emissions and reduce the impact on air quality.	<input type="checkbox"/>	<input type="checkbox"/>
<b>3</b>	Speed limits are followed or voluntarily reduced to minimize underwater noise and protect marine life.	<input type="checkbox"/>	<input type="checkbox"/>
<b>4</b>	Vessels are equipped or retrofitted with quiet-running components or insulation to reduce noise.	<input type="checkbox"/>	<input type="checkbox"/>
<b>5</b>	Crew members are trained to recognize and respond to noise or air pollution risks during operations.	<input type="checkbox"/>	<input type="checkbox"/>

07

# RESOURCE EFFICIENCY | UTILITIES



## Water conservation



AmaWaterways is adopting advanced solutions to reduce water consumption and ensure efficient onboard usage. On its Africa cruises, a five-stage water purification system treats river water for use in showers and faucets, reducing reliance on external water sources. The vessels are also equipped with solar-powered water heating systems, minimizing energy use for hot water generation.

Throughout the ships, water-saving taps and showers are installed to reduce freshwater consumption without compromising guest comfort. Onboard sewage treatment plants ensure responsible wastewater processing, while only biodegradable cleaning detergents are used to protect water quality. These efforts are supported by broader sustainability measures, including energy-efficient designs and a commitment to reducing environmental impact across all operations.



*it doesn't take*

**much energy**

*to save energy*



## Energy Efficiency Onboard



AmaWaterways has set a strong example in energy-efficient ship design across its fleet. Their vessels integrate LED lighting, high-insulation windows, and solar water heating systems to reduce electricity demand, while power locks allow ships to plug into shore power, avoiding the use of generators while docked. The AmaMagna features an innovative 10-engine configuration optimized for fuel efficiency and includes solar panels on all stateroom balconies.

To complement these physical upgrades, more boat and cruise operators are adopting formal energy management frameworks like ISO 50001, which helps monitor and continuously improve onboard energy performance. Advanced HVAC systems with smart sensors, real-time energy monitoring, and automated power-down protocols in unoccupied areas are also being implemented.

On the operational side, energy-efficient galley appliances, induction cooktops, and low-energy laundry systems are becoming standard. Real-time energy monitoring dashboards support both crew and management in making data-informed adjustments during navigation and docking. Automated lighting controls, motion sensors, and guest room power-down systems help limit unnecessary energy use when spaces are unoccupied.

## SUSTAINABLE RESOURCE EFFICIENCY | UTILITIES

# ASSESSMENT

		YES	NO
<b>1</b>	Are water-saving devices installed (e.g. low-flow taps, showerheads, vacuum toilets) and regularly maintained?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2</b>	Are efficient water use practices in place for guest services, housekeeping, and laundry operations?	<input type="checkbox"/>	<input type="checkbox"/>
<b>3</b>	Are heating, cooling, and ventilation systems operated efficiently (e.g. via smart controls or crew protocols)?	<input type="checkbox"/>	<input type="checkbox"/>
<b>4</b>	Are energy-saving technologies in place, such as LED lighting or energy-efficient appliances?	<input type="checkbox"/>	<input type="checkbox"/>
<b>5</b>	Is energy and water use monitored onboard, with data used to identify ways to reduce consumption?	<input type="checkbox"/>	<input type="checkbox"/>
<b>6</b>	Are sustainable shore power systems used when available to reduce emissions and fuel use while docked?	<input type="checkbox"/>	<input type="checkbox"/>

08

DISRUPTION OF  
BIODIVERSITY





## DISRUPTION OF BIODIVERSITY

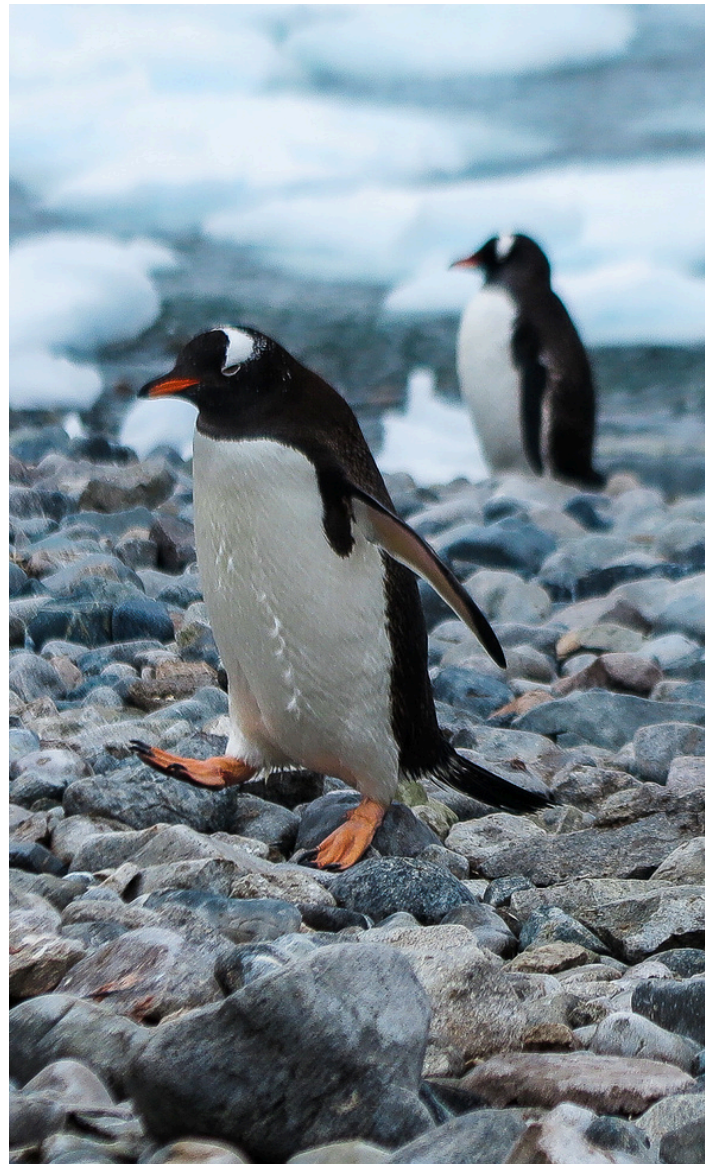
Cruise tourism can heavily affect marine life. Solid waste like plastics adds to ocean pollution, while engine noise disrupts whales, dolphins, and other species. Sewage, oil, and chemical discharges contaminate habitats, and ship strikes kill animals such as whales, turtles, and manatees. Guest activities and excursions can worsen impacts through overcrowding at sensitive sites, wildlife disturbance from boats and swimming, anchor and propeller damage to reefs and seagrass, sunscreen and litter in the water, and added waste and water use on shore. These pressures make stronger, more sustainable practices across ships, guests, and tour operators essential.

## Educational programs for passengers

*Educational programs on biodiversity can provide passengers with valuable insights into the ecosystems they encounter during their travels. By increasing awareness and fostering a deeper appreciation for the natural world, these programs enhance the overall experience while encouraging environmental stewardship and conservation efforts.*



Hurtigrutens education program is a part of their Science & Education initiative, which aims to engage their guests in learning more about the people, places, and wildlife they encounter on their expeditions. The program allows guests to participate in various scientific projects, such as collecting data on climate change, marine life, and biodiversity, and to attend lectures and activities led by experts and guest scientists. The program also supports several environmental projects and organizations that work to conserve and understand the planet. During each voyage, Hurtigruten involves guests in Citizen Science projects as part of their onboard Science & Education program, with the goal of enhancing guest knowledge and interest in the regions they are exploring. For example, guests can help track and identify whale species and movements for research using hydrophones and cameras.



## Supporting conservation initiatives



Ecoventura, a cruise company operating in the Galapagos Islands, actively supports biodiversity conservation through several initiatives aimed at preserving the unique ecosystem of the region.

One of Ecoventura's significant contributions to conservation is the establishment of the Galapagos Biodiversity & Education for Sustainability Fund (GBESF), in partnership with the Charles Darwin Foundation and the Galapagos National Park Service. The GBESF aims to support research and conservation projects related to biodiversity, including monitoring trips, community outreach, scientific equipment, and maintenance for the Galapagos National Park Directorate boats. Additionally, the fund supports education for sustainability projects, including scholarships for local students to study at universities.

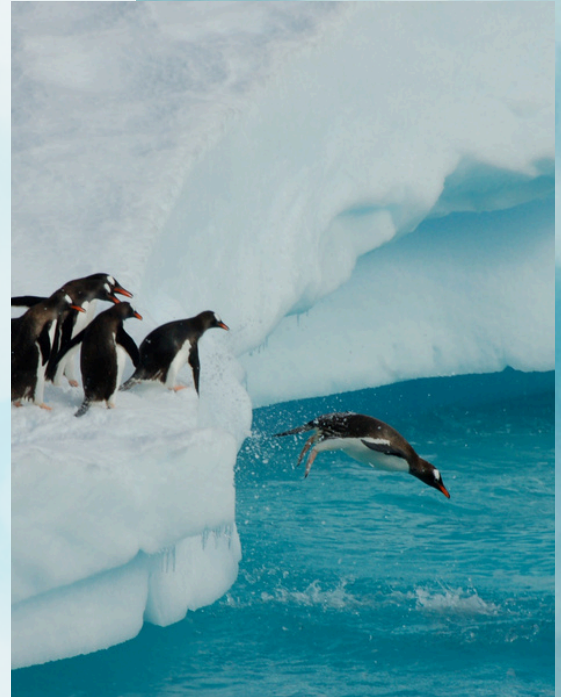
## Engaging Guests in Marine Biodiversity Monitoring



The Citizen Science Cruises initiative offers a unique blend of leisure and learning aboard small expedition and sailing vessels. Operating mainly in the Mediterranean and North Atlantic, these cruises invite passengers to actively participate in marine biodiversity research during their voyage. Through partnerships with NGOs and scientific institutions, guests are trained to observe, document, and log sightings of whales, dolphins, seabirds, and plastic debris, contributing valuable data to international databases such as OBIS-SEAMAP and Happywhale.

Onboard sessions include marine ecology briefings, species identification workshops, and hands-on training in observation protocols. This immersive approach deepens passengers' understanding of ocean life and fosters a direct connection between travel and conservation. In turn, scientists benefit from expanded observation coverage across key migration routes and less-studied areas.

By integrating citizen science into their cruise experience, these operators promote biodiversity awareness, support real-time conservation research, and inspire more responsible, informed travelers. The model showcases how small-scale cruise tourism can go beyond minimizing impact - actively contributing to ocean stewardship.



Your business can be  
profitable and  
purpose driven at the  
same time.



09

EMPLOYEE  
INVOLVEMENT





## EMPLOYEE INVOLVEMENT

Crew members play a vital role in advancing sustainability at sea. When staff are properly trained in ocean-friendly practices - from waste management to energy conservation - they become key drivers of environmental protection onboard. This not only reduces the cruise line's ecological footprint and strengthens its reputation, but also empowers crew to carry sustainable values beyond the ship.



## Staff Engagement and Education



Sunsail, a global yacht charter company, recognizes that creating meaningful and lasting change requires the active involvement of all team members regardless of role or location.

To embed sustainability across its operations, Sunsail has introduced an 'Introduction to Sustainability' module in all employee inductions, ensuring new staff are familiar with the company's Ocean Promise and empowered to get involved from day one. Ongoing education is reinforced through a monthly internal sustainability newsletter, which highlights progress, shares staff stories, and offers practical tips for greener workplace behavior.

Sunsail also supports personal engagement through its long-standing Charity Days program, offering every employee up to two paid days annually to volunteer for a cause of their choice. Staff have used this initiative to participate in beach cleanups, marine conservation projects, and community support activities around the world from working with the Blue Marine Foundation to assisting hurricane-affected teams.

# Sustainability Led by Local Guides



Sail A Vie works directly with local guides to support the regional economy while providing guests with authentic, community-based experiences. Their tour leaders are regularly trained in key sustainability topics, including marine conservation, responsible tourism, and cultural sensitivity. Acting as onboard ambassadors, they actively engage guests in conversations around ocean preservation, marine pollution reduction, and respect for local coastal traditions.



# 10 | GUEST INVOLVEMENT



## GUEST INVOLVEMENT

Guest involvement is central to making small-scale cruising and yachting more sustainable. By joining environmental education, responsible excursions, and hands-on conservation activities, travelers help protect fragile marine and coastal ecosystems while enriching their own experience. When guests also learn practical sustainability practices they can apply at home, the company that introduced these lessons remains memorable long after the journey, linking their trip to lasting positive impact.



### **Onboard Environmental Education**

Guests receive daily briefings from certified naturalist guides, covering Galápagos biodiversity, conservation challenges, and responsible visitor behavior. These sessions help guests understand the ecological importance of the islands and how to reduce their impact during excursions.

### **Plastic Clean-Up: “8 Pounds Cleaner”**

Through the 8 Pounds Cleaner program, each guest indirectly contributes to removing 8 pounds of plastic waste from Galápagos beaches. This initiative, part of the Pacific Plastics: Science to Solutions network (PPSS), combines clean-up efforts, education, and data gathering to promote global awareness and replicable solutions.

### **Beach Clean-Ups During Excursions**

Guests are invited to take part in hands-on beach clean-ups during guided landings, directly contributing to local conservation while gaining a deeper understanding of marine plastic pollution.

### **Adopt-a-Galápagos-Animal Program**

Guests can join Royal Galapagos in becoming “adoptive parents” to endangered Galápagos species. Adoption includes certificates, updates on conservation progress, and symbolic gifts such as stuffed animals, engaging guests emotionally and financially in the protection of local wildlife.

# 11 | CERTIFICATIONS





## Global Sustainable Tourism Council (GSTC)

GSTC is a leading global initiative tasked with setting standards in sustainable travel and tourism, functioning as the international accreditation body for sustainable tourism certification.

The suggested indicators for Hotels were created in an effort to come to a common understanding of "sustainable tourism".



## Blue Flag

Blue Flag is a globally recognized eco-label awarded to sustainable marinas, beaches, and tourism boats.

For vessels, it sets standards on waste disposal, spill prevention, crew training, and passenger education. The certification promotes environmental responsibility and safe, low-impact operations on the water.

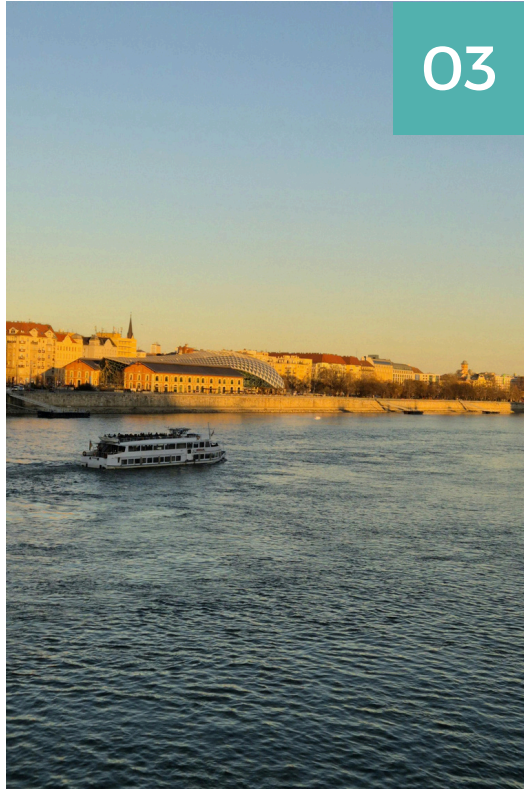




## Green Award

Green Award is an international certification program for ships that meet high standards in safety, quality, and environmental performance.

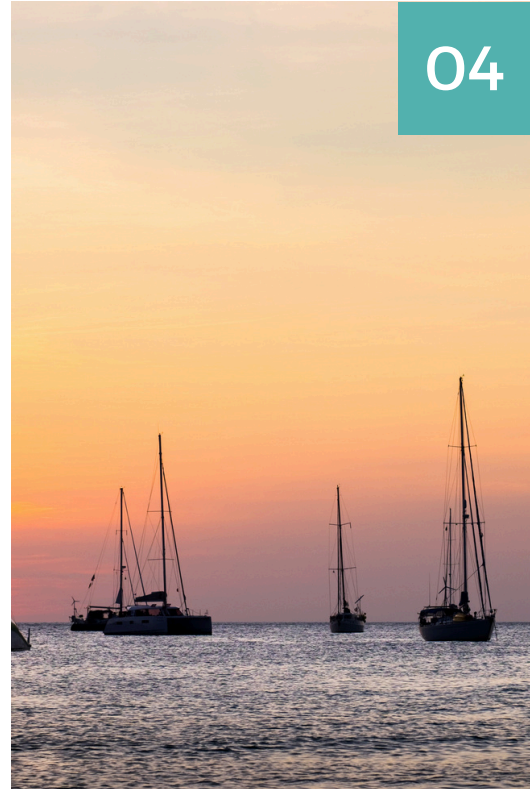
It encourages energy efficiency, low emissions, and responsible waste management, with certified vessels often receiving benefits like discounted port fees.



## ISO 14001

ISO 14001 is an international standard for Environmental Management Systems (EMS), helping organizations improve environmental performance through structured processes.

For cruise and boating operators, it supports compliance, pollution prevention, and continuous improvement in areas like energy use, emissions, and waste handling.



# THANK YOU!

A big thank you for making it through to the end of our guide! We hope that it will be useful in helping you take your first steps towards creating a more sustainable **boating** industry. Only by preserving and protecting the very cultural and natural treasures you promote, can your **company** continue to thrive in the long-term. We, at Sea Going Green, appreciate your dedication to sustainability!

Please give us your feedback to help us to continue to deliver free resources tailored to your needs!



SAY THANKS AND BUY US A COFFEE

# DISCOUNT CODES

Inspired to start thinking sustainably? We have some discount codes from our partners to get you started. Use the following discount codes to receive up to 20% on your next purchase. From marine-safe sunscreen to water savings devices to plastic-free alternatives, we have you covered. Would like to order any of these or similar products wholesale? Get in touch!

<p><b>20% OFF</b></p> <p> <b>Water-to-Go™</b> water filtration system</p> <p>SEAGOINGGREEN20</p>	<p><b>10% OFF</b></p> <p> <b>HYDRAO</b></p> <p>HYSEA10</p>
<p><b>10% OFF</b></p> <p> <b>STREAM2SEA</b> — Reef-Friendly • Biodegradable —</p> <p>SEAGOINGGREEN</p>	<p><b>10% OFF</b></p> <p> <b>Suntribe®</b></p> <p>SEAGOINGGREEN</p>

Do you have questions that  
you'd like to discuss with us? -  
Get in touch!

## Sea Going Green

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