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## Maritime Shipping Tip Sheet

### Setting sail to a global economy

Remember the colossal ship stuck in the Suez Canal during the height of the pandemic? You probably do. Remember the colossal amount of money that was frozen? You probably never heard the number: nearly [\\$10 billion in overseas trade](#) per day.

Shipping is the lifeblood of the global economy, a fact that many online shoppers grew to learn during the Suez Canal incident. Ships are responsible for up to [90 percent of international trade](#), from large-scale industry commodities to small-scale consumer goods.

A mere ten companies control more than 90 percent of the [worldwide cargo container market](#). One of these companies could bring a world of change.

A few notable names are Maersk, MSC, and COSCO — also known as power players in a concentrated industry. The industry operates on an immense scale, as a container ship travels a distance equal to 75% of the way to the moon and back in a year.

Maritime shipping is unique in this concentration. Yes, there may be a higher barrier to entry for the sector. But we can influence massive change if just one of the ten major players is on board with net-zero goals.

Change will be transformative if multiple companies are on the road to decarbonization. [Shifting just 5 in 100 ships](#) to zero-carbon fuels by the end of this decade could propel the whole industry to adopt clean fuels by 2050.

### Green corridors and other routes to net-zero

If we look at the [financial and environmental costs](#), maritime shipping takes the cake as the best form of transport for large volumes of cargo. But do not mistake this efficiency for perfection; the industry still has a long way to go to decarbonize.

“As we accelerate our journey towards a sustainable future, shipping must embrace decarbonization,” said the president of the [International Maritime Organization](#) (IMO). The IMO is key to net-zero shipping as the global regulator for ships, fuel, and ports.

One emerging area of progress that touches every step of a product’s shipping journey is [green corridors](#). These shipping routes are zero-emission from start to finish, beginning when a product leaves the factory and ending at a port thousands of miles away. Zero-emissions trucks, cargo equipment, fuels, and distribution practices make this a decarbonized lifecycle.

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Commitments from industry giants are also emerging. [The Climate Pledge](#) aims to deliver 50 percent of Amazon shipments with net-zero carbon by 2030. Leading banks that represent \$200 billion in shipping finance signed onto the [Poseidon principles](#) to drive zero-carbon investments.

Public and private partnerships educate the broader field and spark funding for climate change mitigation in transport. The [Climate Emergency Shipping Coalition](#) (CESC) and [Cargo Owners for Zero Emissions Vessels](#) (coZEV) bring advocates, academia, and communities together to decarbonize the sector.

Wind sails, hydrogen-powered vessels, and low-carbon liquid fuels are other climate-friendly alternatives to cut pollution from cargo ships. Most of these technologies are still in development and are not yet widely available, though more research funding will help bring them to the mass market.

### **Cargo ships, then and now**

In 2017, [Carnival's cruise ships](#) in European waters produced ten times more sulfur pollution than all 260 million cars in Europe. The pre-pandemic numbers reflect a time before luxury cruises tanked but show the scale of impact and potential for innovation.

Cargo ships run on [heavy fuel oil](#), often called 'the dirtiest fossil fuel.' It emits sulfur oxides, nitrogen oxides, tiny particulates like PM 2.5, and black carbon emissions. These pollutants [accelerate ice melt](#) in the Arctic and add to the ever-growing threat of climate change.

Even the 'cleaner' option is dirty. [Liquefied natural gas](#) (LNG) is the alternative fuel of choice for nearly two-thirds of ships. When ships burn LNG, they produce methane on a staggering scale, and this gas is [80 times more potent](#) at trapping heat in the atmosphere than carbon dioxide.

A green future must be an equitable one. Justice is lacking in many port communities, where runoff from pollutants and fuel spills directly impacts the health of residents. And in North America, many LNG production sites are located near Indigenous peoples, leaving communities to breathe in toxic emissions.

One potential remedy is a global carbon levy on shipping that funds loss and damages suffered by countries active in the maritime industry, such as Morocco and South Africa in the Global South. A levy could provide more economic freedom for port communities—if aligned with other climate policies for a just future.

Maritime [emissions are set to rise dramatically](#) by mid-century as [trade volumes double](#). We are responsible for protecting tens of thousands of people in seaport communities and charting a cleaner path for the sector.

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## Story ideas

### *Climate*

- Pick a port in your area. What are the emissions emitted from its transit routes on a monthly basis?
  - How can a transition to [green corridors](#) positively impact communities based near seaports?
  - For example, populations around the Port of Los Angeles have the region's highest cancer risk from air pollution and high rates of asthma.
- Why is [liquified natural gas](#) (LNG) a poor long-term decision for vessels?

### *Policy*

- What national, local, and port policies pressure the shipping sector in your area to stop operating on fossil fuels?
- Is your city or state part of a network such as the Climate Emergency Shipping Coalition?
  - If so, what are some best-case scenario outcomes?
  - If not, which one would be the most beneficial for your area to join?
- How can local laws reduce the environmental impact of the shipping industry on our ocean ecosystems?
- How are energy security and wartime policies on energy production related? How can alternative methods and new innovations reduce the need for external dependence on certain types of energy or transport?

### *Economy*

- Shipping costs, which directly influence the cost of goods, will only increase in the future, especially for [Small Island Developing States](#) (SIDS) and related countries. How can we center equity in the energy transition?
- On a related note, what will green shipping mean for the consumer economy? What about for maritime shipping workers?
- What is the role of philanthropy in advancing hydrogen fuel for ships, green corridors, or regulations aimed at seaside communities? How can philanthropic funding catalyze broad investments?

## Reporting resources

### *National — United States*

- The [Federal Maritime Commission](#) website gives a good industry overview.
- Curious about the ocean freight business? Check out [UPS' website](#).

### *Global*

- This [long-form article](#) on momentum in all things maritime is a good place to start.
- A hodgepodge of [reports from OECD](#) on ocean shipping.
- A research guide to [Maritime Facts and Figures](#).
- A [program strategy brief](#) on all kinds of transportation, including maritime shipping.

- [Climate action](#) in shipping needed for a 2030 breakthrough.
- [Shipping issues](#) by month, including freight cost increases.
- A few networks focused on the future of climate-friendly shipping:
  - The 'moon shot' for shipping: [Getting to Zero Coalition](#) is committed to zero-emission vessels and fuels to decarbonize the industry by 2050.
  - [Cargo Owners for Zero Emission Vessels](#) (coZEV) is another cargo network looking at net zero.
  - The [International Chamber of Shipping](#) is a global trade association.
- Are you a shipowner or operator? Check out the [International Chamber of Shipping](#).