



PLASTICS AND THE CIRCULAR ECONOMY

NAS Roundtable on Science and Technology for Sustainability

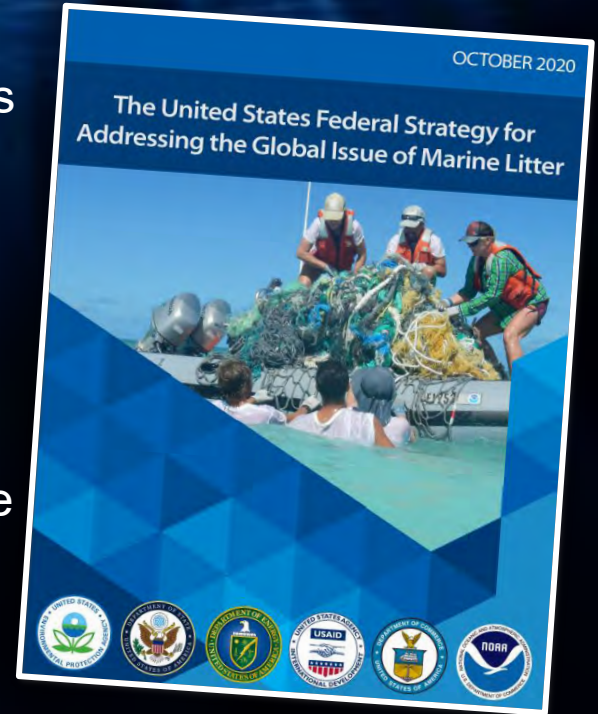
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ADMINISTRATIVE PRIORITY AREAS

- Executive Order 13840 “Ocean Policy to Advance the Economic, Security, and Environmental Interests of the U.S.” (2018)
- Save Our Seas Act S. 3508 (2018)
- Science and Technology for America’s Ocean: A Decadal Vision (2018)
- White House Summit on Partnerships for Ocean S&T (2019)
- Presidential Memorandum on Ocean Mapping of the EEZ and Shoreline/Nearshore of Alaska (2019)
- Executive Order on Promoting American Seafood Competitiveness & Economic Growth (2020)
- NOPP 2.0 Reauthorization
- United States Federal Strategy for Addressing the Global Issue of Marine Litter (2020)



Ocean Economy (\$373 Billion)*

*Source: <https://www.bea.gov/data/special-topics/ocean-economy>



THE ISSUE WITH MARINE DEBRIS

- **Economic loss**
- **Wildlife entanglement and ingestion**
- **Habitat damage**
- **Vessel damage and navigation hazards**
- **Invasive species**



NOAA'S MARINE DEBRIS PROGRAM

Federal Lead for Marine Debris:

- Prevention
- Removal
- Research
- Regional Coordination
- Emergency Response



U.S. CONTRIBUTIONS TO GLOBAL OCEAN PLASTIC WASTE

NOAA & NAS Study: June 2020 - Fall 2021

1. Evaluate U.S. contribution types and sources
2. Assess mismanaged plastic waste
3. Examine waste management infrastructure
4. Assess value of a national marine debris tracking
5. Recommend areas for further study
6. Determine means to reduce waste

OCEAN DECADE CHALLENGES



- 1) Pollution and Marine Debris
- 2) Ecosystem Protection, Restoration
- 3) Food Security, Sustainable Seafood
- 4) Economic development
- 5) Ocean-Climate Nexus
- 6) Multi-Hazard Warnings
- 7) Ocean Observing Systems
- 8) Digital Ocean Map and Data Portal
- 9) Capacity Development
- 10) Social & Behavioral Barriers to Change

COVID CHALLENGES

- Increase in PPE Waste
- Single use plastics

How can we build back better?

There is no “away”!

INSPIRING THE FUTURE

- Define your needs
- Use the Decade as a vehicle
- Educate constituencies
- Industry: Business Plan
- Science Plan: Be Ambitious
- If not now, when??
- Return to Campaign Oceanography
- If you like your 7 day weather forecast thank an Oceanographer
- Speak up, bring the kids



A serene sunset scene over a vast ocean. The sun is a bright, glowing orb on the horizon, casting a shimmering path of light across the water's surface. The sky transitions from a deep blue at the top to a warm orange near the horizon. Several birds are captured in flight, their silhouettes against the soft light. The water in the foreground is covered in gentle, rhythmic waves, reflecting the golden hues of the setting sun.

QUESTIONS?