

Emerging Policy and Measurement Connections

Bob Perciasepe



C2ES.ORG



- The last 10 years have seen advances in greenhouse gas measurement and at the same time a growing chorus of companies publicly committing to a net zero emission goal by the middle of the century.
- Financial institutions, regulators and investors are seeking greater transparency on climate change risks as they look for investment opportunities. Stockholders, customers, and employees are looking for businesses to be more forward leaning on environmental and climate change responsibilities.
- How can advances in measurement help merge growing corporate responsibility with the need for public transparency? What are the opportunities?



- **Duke**

- “We're striving for net-zero carbon emissions by 2050”
- “our carbon-reduction goals even more to cut our CO₂ emissions by half or more by 2030”

- **BP**

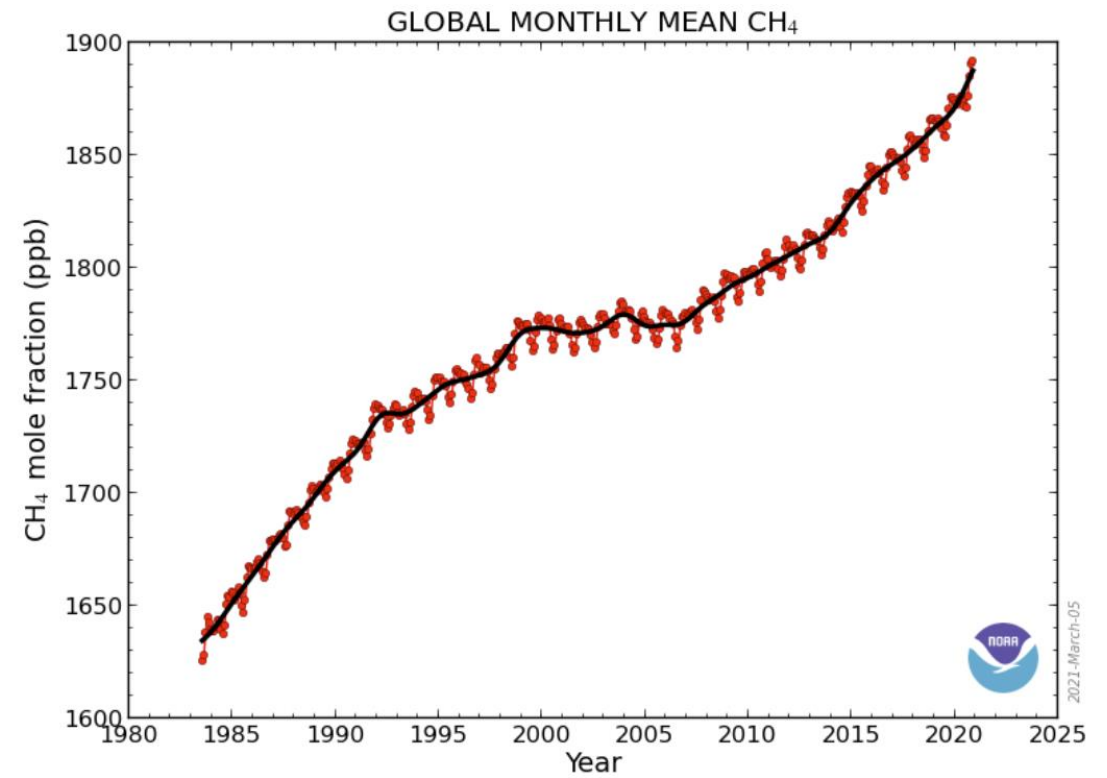
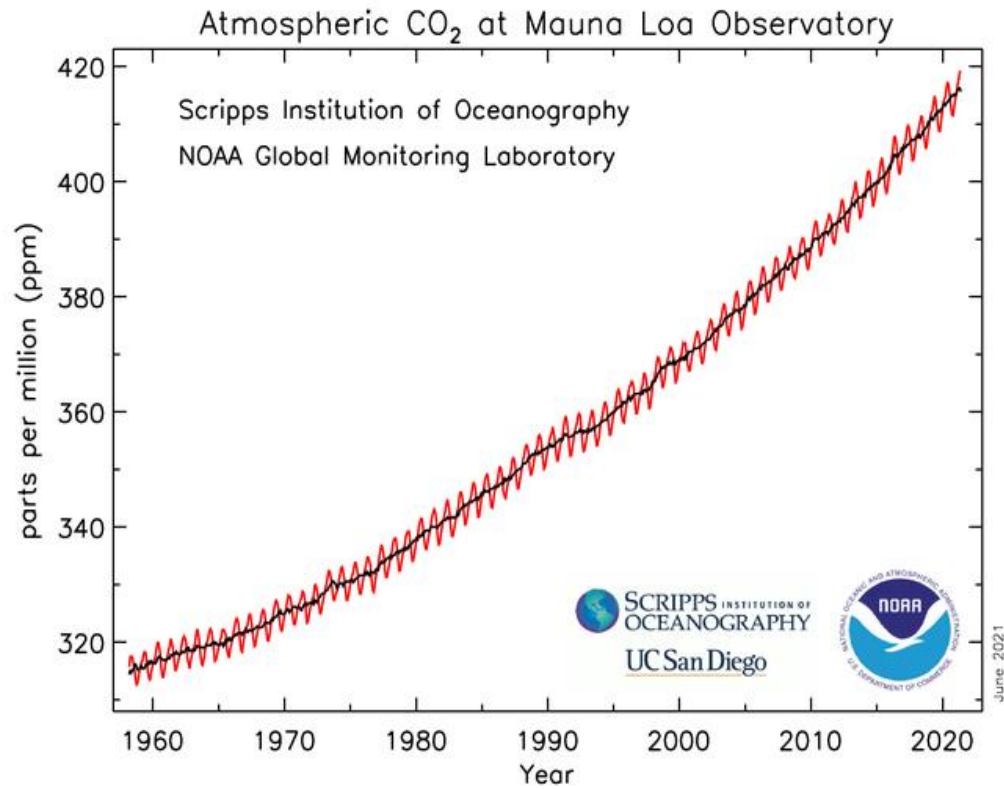
- “Our ambition is to become a net zero company by 2050 or sooner”

- **Microsoft**

- “By 2030 Microsoft will be carbon negative, and by 2050 Microsoft will remove from the environment all the carbon the company has emitted either directly or by electrical consumption since it was founded in 1975.”

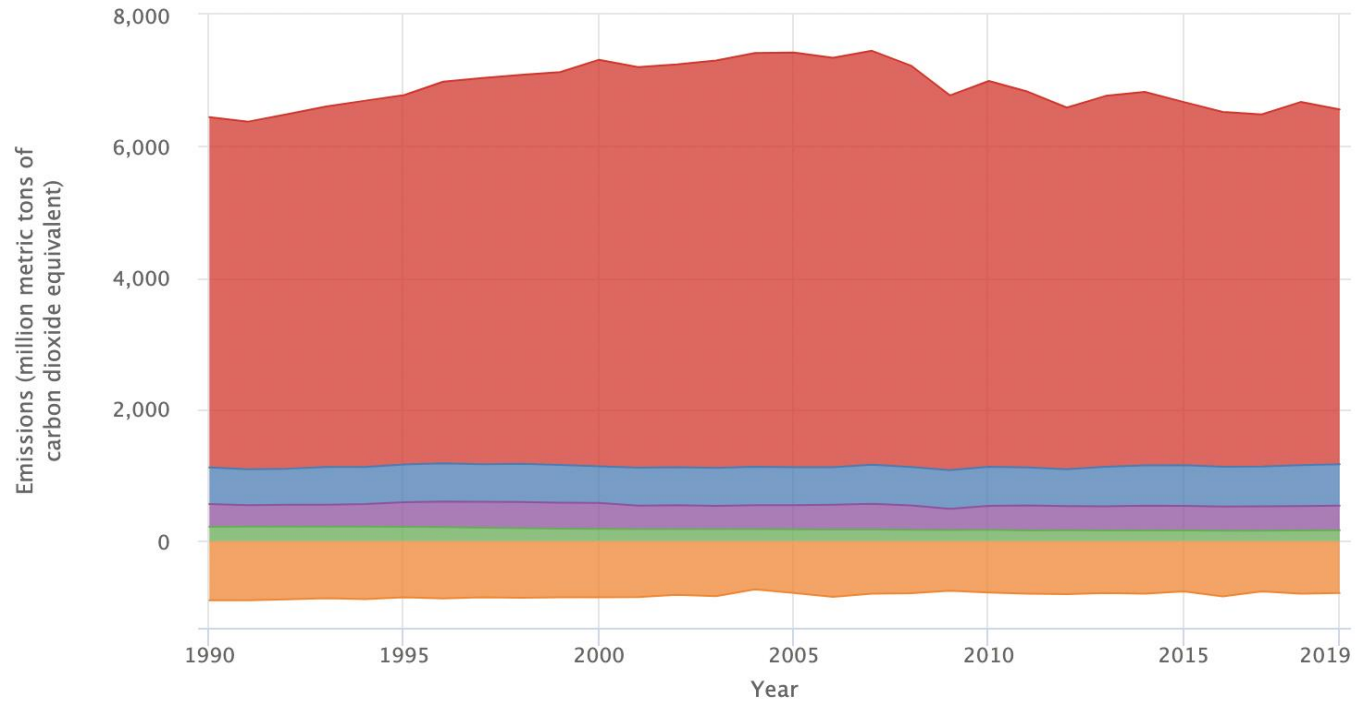
- **Walmart**

- “World’s largest retailer targets zero emissions by 2040 ”



U.S. Greenhouse Gas Emissions by Inventory Sector, 1990–2019
Net CO₂ Flux

☰ Export



- Energy
- Agriculture
- Industrial processes
- Waste
- Land use, land-use change, and forestry

Percent change:

1990–2019

- 🔥 ▲ 1.3%
- 🐄 ▲ 13.2%
- 🏭 ▲ 8.1%
- 🗑️ ▼ 24.2%
- 🌳 Sink ▼ 12.4%

Gross total: ▲ 1.8%

Net total: ▲ 4.1%

Source: U.S. EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2019.
<https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>



- Companies and Governments are Making Significant Commitments
 - 50% below 2005 by 2030 – US Nationally Determined Contribution under Paris
 - Close to 60% of US Fortune 500 companies have set climate targets
 - 32% of Global 500
- To Meet These Targets Government Policy and Investments Will be Needed
 - Price on Carbon, Tax or Fee
 - Clean Energy Standards, Clean Heat Standards, Clean Electricity Standards
 - Power Transmission, On-Shore Off-Shore
 - Broad Band
 - Charging, Fueling

The Effectiveness of Policy and Investment



- These Policies and Investments Will need Enhanced Monitoring and Measurement
 - Carbon Fees/Taxes do not have an explicit environmental outcome
 - Clean Energy/Heat/Electricity will have tradable credits
 - Building Infrastructure is Essential, but Does Not Itself Reduce Emissions
- Monitoring and Measurement Essential for:
 - Targeting cost effective implementation
 - Enhancing Flexible Regulations and Legislation
 - Building Public Trust and Confidence
 - Assuring Compliance

- With the Increase in GHG Reduction Commitments and Emerging Regulatory and Legislative Frameworks – Stronger and More Universally Accepted Measuring will be needed.
- Offsets are In Demand, they must be Verifiable, Permanent, and Additional
- Multiple Platforms Need Integration: Space, Aerial, On Ground, Facility
- Each of Those Need Ongoing Innovation for Consistency and Cost Effectiveness
- Fraud Prevention, Public Confidence
- Credibility to Lower GHG Products and Their Life Cycles, Especially as Consumer Choice Will Always be an Important Element



FOR MORE INFORMATION

C2ES.ORG

Bob Perciasepe – bobperciasepe@c2es.org