Overview of Sustainability Today **From ESG to Climate Change to Biden's Agenda**

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Midwest Environmental Compliance Conference

Agenda







ESG (Environmental Social Governance) Paris Agreement

Biden's Plan

Social Cost of Carbon



ESG Overview



What is ESG?

Environmental (E): The impact an organization has on the environment

Social (S): How organizations improve their community impact

Governance (G): How an organization's board and management drive positive and transparent change





Description of ESG

Environmental	Social	Corporate Governance		
Carbon Emissions	Social Responsibility	Board Diversity		
Climate Resilience	Diversity & Inclusion	Executive Pay		
Water	Labor Practices	Customer Satisfaction		
Waste	Human Capital	Information Security		
Deforestation	Product Safety	Lobbying		
Biodiversity	Community Input	Risk Management		
Ecological Protection	Occupational Safety	Code of Conduct		
Land Management	Employee Satisfaction	Tax Strategy		
Energy Use	Environmental Justice	Supply Chain		
		Ethics		



- ▶ 1980-1990 Compliance with regulations (Clean Air Act, Clean Water Act)
- 1995 First Conference of the Parties (Climate Change)
- 1990-2000 Sustainability Focus
- 2000-Present Corporate Sustainability Reports and alignment with social pushes
- Late 2010s and beyond ESG voluntary and required reporting
- 2021 and beyond Governmental requirements



Who Cares About ESG?

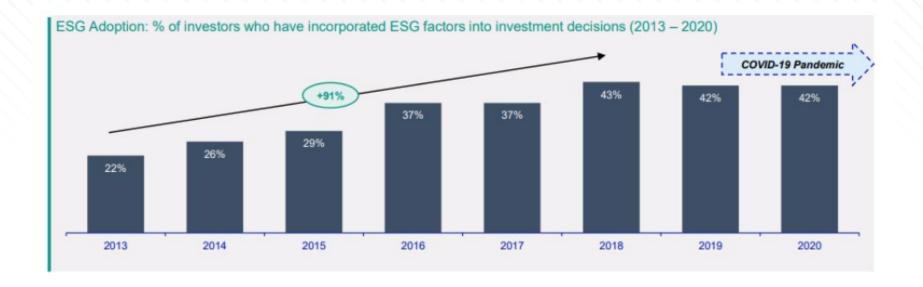
- 72% of Americans believe that global warming is happening
- 63% of Americans are worried about global warming
- 70% of Americans believe that corporations should do more to address global warming
- 60% of Americans believe that the President/Congress should do more to address global warming
- 52-54% of Americans believe that Governors and local officials should do more to address global warming

Public opinion drives both spending and policy changes

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Source: Yale Climate Opinion Maps, 2020

Who Cares About ESG?



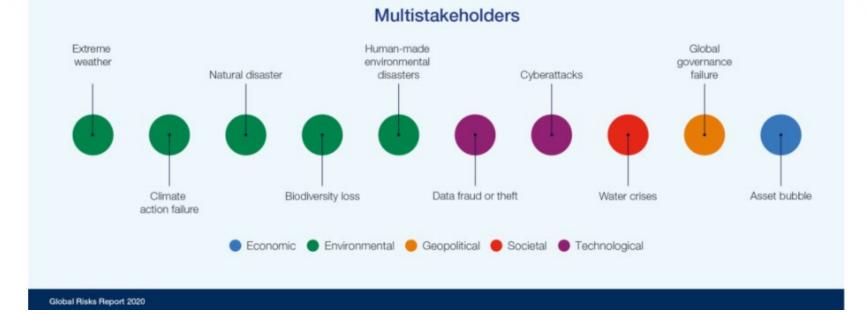
ESG adoption in investing steadily increased prior to the pandemic.



Investors Focused on Environment Risk

Long-Term Risk Outlook: Likelihood





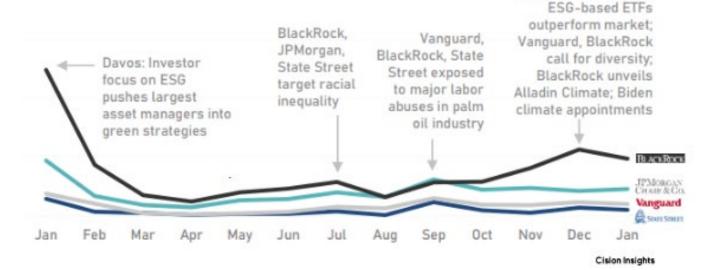
For the first time, the World Economic Forum (2020) reports all of the top five long-term risks by likelihood are environmental.



Blackrock Recommendations

Larry Fink, Blackrock CEO, calls for Net Zero Climate Action Plans on behalf of the world's largest investor (\$9 trillion in assets). Further recommendations:

- Requirement for disclosure about how a company's climate/net zero plan is incorporated into its long-term strategy
- Companies not quickly preparing for a net zero economy will see their businesses and valuations suffer
 Vanguard, BlackRock





ESG Sector Risk Atlas

			mental risk	Social risk			
Metals and mining	1		π			r	i / / i
Oil and gas			II:	¢	¢		
Power generation (coal)					ę :		
Chemicals				0	6		
Refining and marketing	1				S .		
Agribusiness and commodity foods	í 			<u>d</u>	¢		
Autos and auto parts	1			4	5		
Power generation (excl coal)	<u>ا</u>			0	¢		
Technology hardware and semiconductor	e			Q	¢.		
Environmental services				ġ.			
Forestry				¢.			
Transportation				4			
Aerospace and defense			11	c,	-		
Building materials];	c.			
Containers and packaging			12				
Engineering and construction		1	11				
Home builders and developers			11	¢			
Leisure			11	c			
Media		1	12				
Midstream		1	11				
Regulated utilities network			11	ġ			
Retail		1	11	с			
Telecom			11	r			
Consumer products		1	11				
Capital goods		1:	12				
Health care			li.				
Însurance			1.				
Technology software and services		1	11				
Transportation infrastructure		1	11.				
Banks							
Asset managers			· · · · · · · · · · · · · · · · · · ·				
Business and consumer services		1					
Real estate operators							
Supranational and development institutions							
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Risk score

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Source: S&P Global Ratings. Copyright © 2019 by Standard & Poor's Financial Services LLC. All rights reserved.

COP26

(United Nations Climate Change Conference)



Conference of the Parties 26

UN Climate Change Conference (Oct 31- Nov 12, 2021)

- Paris Agreement in 2015, a legally binding treaty in which leaders pledged to limit global warming
 - Promised to keep global temperatures to well below 2°C compared to pre-industrial levels, and ideally below 1.5°C.
- COP25 showed the stretch 1.5°C goal of the Paris Agreement is "slipping out of reach."
- Countries' Nationally Determined Contributions, or NDCs, are met, emissions in 2030 will be 38% higher than required to meet that target, the report concluded.



Conference of the Parties 26

UN Climate Change Conference (Oct 31- Nov 12, 2021)

*At COP26 we need to work together to enable and encourage countries affected by climate change to: protect and restore ecosystems, build defences, warning systems and resilient infrastructure and agriculture to avoid loss of homes, livelihoods and even lives."



Biden's Agenda

ALL

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Executive Order on Tackling the Climate Crisis at Home and Abroad (Jan. 2021)

- Part 1: Putting The Climate Crisis at the Center of United States Foreign Policy and National Security
- Part 2: Taking a Government-Wide Approach to the Climate Crisis

"This is a case where conscience and convenience cross paths, where dealing with this existential threat to the planet and increasing our economic growth and prosperity are one and the same. When I think of climate change ... I think of jobs." PRESIDENT JOE BIDEN BEFORE SIGNING EXECUTIVE ACTIONS ON TACKLING CLIMATE CHANGE, CREATING JOBS, AND RESTORING SCIENTIFIC INTEGRITY (JAN. 27, 2021)



- Reducing greenhouse gas pollution from 2005 levels by 50-52% in 2030 as part of the U.S. Nationally Determined Contribution (NDC)
- Creating a carbon pollution-free power sector by 2035
- Reaching net-zero emissions economy-wide by no later than 2050
- National Climate Task Force
 - Every agency to prioritize acting on climate change throughout the entire federal government
 - Creating jobs
 - Developed NDCs using a "whole-of-government approach"
 - National strategy coming out later this year



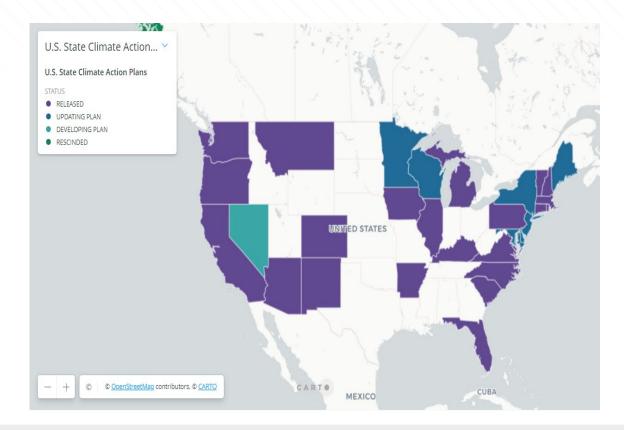
- 100% carbon free electricity by 2023
 - Renewable energy
 - Energy storage
 - Carbon capture
- Efficiency upgrades and electrification in buildings
- Reduce from transportation sector
- Reduce emissions from forests and agriculture (nature-based solutions)
- Carbon reduction from industrial sources
 - Hydrogen
 - Carbon capture
 - Renewable energy
- Reduce methane, HFC, and other non-CO₂ GHG
- Invest in innovation



- Federal Action: On May 20, 2021, US President Joe Biden issued his Executive Order on Climate-Related Financial Risk (EO)
- State Climate Plans:
 - 22 states have plans in place
 - 8 states are updating their plans
 - 1 state is developing a plan

Climate Action Plans

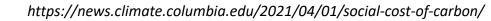
Generally, include greenhouse gas emissions reduction targets and detailed actions the state can take to help meet these goals. May also include clean energy, economic, and social goals.





Social Cost of Carbon

- The social cost of carbon is used to help policy makers determine whether the costs and benefits of a proposed policy to curb climate change are justified.
 - Low cost means SCC make the policy cost more than the benefits
 - High cost means that the benefits of policy to cut CO₂ justify its cost
- ▶ \$51 per ton CO₂ (Current interim rate)
- \$1 per ton under Trump
- Discount rate: 3%
- Reassessed in January 2022







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