Climate Change and Community Well-being Report

This briefing document synthesizes key information from the provided sources regarding the current state of climate change, its impacts on the United States, and the resultant financial strain on individuals and institutions, particularly concerning the insurance market. It also delves into the political and corporate influences shaping the climate narrative and policy.

I. The Science of Climate Change and its Manifestations

- **Definition:** Climate change refers to the steady rise in Earth's average temperature, caused primarily by greenhouse gases like carbon dioxide and methane. When we burn fossil fuels (coal, oil, gas), these emissions act like a blanket—trapping heat and warming the planet." This warming leads to "more frequent and intense weather events: heatwaves, floods, storms, and droughts.

U.S. Warming Trends:

- Since 1970, the contiguous U.S. has warmed approximately **1.4°C (2.6°F)**.
- Warming accelerated from 1979 onward to roughly **0.32–0.51°F per decade**, double the rate from the early 1900s.
- **Regional hotspots** include New Mexico (~0.63°F/decade), Arizona, Utah, Vermont, and New Jersey.
- Globally, 2024 was the warmest year on record, approximately **1.6°C above pre-industrial levels**.
- **Seasonal shifts** show winter temperatures in the U.S. rising ~3°F since 1896, spring by ~2°F, and summer/fall by ~1.6°F. Heatwaves are now longer, more frequent, and streaks of extreme heat have doubled in many cities since 1970.
- **Extreme Weather Events:**The U.S. experienced a record **27 separate billion-dollar climate-related disasters in 2024 alone**.
- The number of U.S. billion-dollar disasters jumped from an average of ~3 per year in the 1980s to over **23 per year in 2020–2024**.
- "Evidence shows anthropogenic (human-caused) climate change is a major driver behind increased wildfire emissions and hazardous smoke exposure across the western U.S.—accounting for up to 65% of fire emissions and significant $PM_{2.5}$ trends from 1997–2020."

- **Health and Safety Impacts:** NOAA data indicates hundreds of Americans die annually due to extreme weather, with approximately **16,900 deaths** in U.S. billion-dollar events from 1980 to 2024.
- "Heat extremes alone cause more deaths than hurricanes or tornadoes."
- Rising summer temperatures lead to increased ER visits for breathing issues and heat-related illness, particularly among children.
- Wildfire smoke, as seen in Minneapolis, creates "some of the world's worst air quality," leading to increased respiratory issues, heart stress, ER visits, and links to worsened cardiac events, dementia, negative birth outcomes, and fertility complications.

II. The Politics and Corporate Influence on Climate Policy

- **Deregulation Efforts:** The Trump administration, through EPA head Lee Zeldin, proposed repealing the 2009 "Endangerment Finding," which classified greenhouse gases as a public health threat. This action is seen as "effectively dismantling the legal foundation for federal regulation of vehicle emissions, methane, and more."
- This move is touted as "the largest deregulatory action in U.S. history, projected to save consumers up to $54 billion annually," though critics argue it "undermines scientific consensus and future legal authority."
- The Department of Energy report supporting the repeal was "widely criticized by scientists for cherry-picking data, downplaying extreme weather risks, and misrepresenting climate modelling."
- **Lobbying and Messaging:** The fossil fuel industry and its trade groups "spend tens to hundreds of millions of dollars each year lobbying against climate rules—around $115 million annually, and likely much more in total." In 2025, the oil and gas sector alone spent over $71 million lobbying Congress.
- In contrast, all environmental groups combined spent just over $30 million in 2023.
- **Industry Message:** Companies often say that climate change is caused by what individual people do - driving cars, using energy, etc. They push that personal choices matter more than industry actions. This "deflects from systemic industry roles and frames regulation as heavy-handed.
- **Who Benefits:** Big companies and industries benefit from weaker rules - they cut costs, while individuals and families, especially in rural areas, pay more: higher insurance, bigger risks to health and farming."

- **Corporate Accountability:** Warren Buffett (BHE) has publicly acknowledged climate risks, especially regarding insurance liabilities from wildfires and storms, warning that 'a truly staggering insurance loss will occur and noting that the utility business is not as good... as it was a couple of years ago. Analysis suggests utility boards control policy levers—through lobbying, trade groups, and regulatory filings—to slow climate legislation at state and federal levels.

III. Financial Strain and the Insurance Crisis

Homeowners Insurance:

- From 2018–2022, average premiums rose about **8.7% faster than inflation**.
- High-risk ZIP code residents paid **82% more** than low-risk areas ($2,321 vs. ~$1,273).
- From 2022–2023, premiums surged by ~20% nationally to an average of **$1,428 annually**, while inflation remained around 3%.
- Between 2020–2023, U.S. homeowners paid ~$500 more per year on average—a **~33% jump**.
- Some areas, like the Twin Cities, have seen homeowners facing hikes from $2,800 to $4,685 - a **60% jump in one year**, on top of a 40% rise in the previous year.

Auto Insurance:

- From November 2022 to November 2023, average U.S. auto insurance premiums rose by approximately **19–22% year-over-year**, significantly exceeding inflation (~3%).
- Comprehensive claims (weather-related damage) are "rising significantly."
- States prone to hail, flooding, windstorms, or wildfires (e.g., Minnesota, Colorado, Texas, California) are seeing premium hikes between 10–50%.

Crop Insurance:

- Costs and claims are growing due to severe weather damaging fields and livestock, leading to higher costs and lost income for farmers.

Insurer Withdrawals and Losses:

- In the riskiest areas (wildfires, flooding, hail), insurers are pulling back. Nonrenewal and cancellation rates are notably higher in these zones: coverage drops by ~80% higher rates compared to low-risk areas.

- In California, State Farm has stopped issuing new policies in wildfire-prone zones. Some insurers became insolvent after major hurricanes in Florida and Louisiana.
- U.S. insurance firms saw underwriting losses climb from **$6.4 billion in 2017 to $15.9 billion in 2023** across 18 states.
- Annual insured losses from climatic disasters approached **~$100 billion annually by 2022**, a massive increase from just $4.6 billion in 2000.

Broader Economic Consequences:

- **Unequal Burden:** Low-income and historically marginalized communities face disproportionate impacts - from dropped insurance to skyrocketing costs—worsening inequality and reflecting echoes of past redlining patterns.
- **Financial System Risk:** The mounting climate-exposed losses pose systemic challenges: insurers retreat, homeowners go uninsured, and smaller banks face exposure in local real estate markets.
- **Impact on Other Industries:** Businesses like tourism, fishing, outdoor recreation, and logging face more frequent losses when weather hits.
- **Wildfire Smoke Financial Implications:** Wildfire $PM_{2.5}$ pollution increases borrowing costs for hospitals and nursing homes in affected areas (by about 6.4bps for hospitals and 12.1bps for nursing homes), translating to roughly **$250 million in extra interest costs so far**, projected to reach $570 million over the next decade. These costs also raise per-patient care expenses (~$250 per patient) and disproportionately impact high-poverty and minority communities.

IV. Minnesota Specific Impacts

- **Auto Insurance:** Minnesota is directly in the line of these trends. Severe hailstorms, wind damage, flooding, and excessive precipitation have resulted in more comprehensive claims, translating to higher premiums and stricter underwriting in recent years.
- **Wildfire Smoke:** Canadian wildfire smoke has created some of the world's worst air quality in cities like Minneapolis, triggering prolonged state-wide air quality alerts. AQI levels were classified as unhealthy for all.
- **Disproportionate Impact on Rural Residents:** Rural residents are sometimes in areas with increasing hailstorms, flooding, unpredictable weather." Insurance companies may deny renewals, raise deductibles, or limit coverage - disproportionately affecting rural homeowners.

- **Electricity vs. Insurance Costs:** While "electric cooperatives often boast lower electricity rates - thanks to local cost control and investments in renewables - the hidden tide is insurance. Insurance hikes affect home and auto policies, not electricity bills, meaning even if power remains cheap, losses mount through rising insurance costs.

V. Key Takeaways

- Climate change is not merely an environmental issue but a rapidly escalating economic and social crisis, fundamentally reshaping financial markets, particularly insurance.
- Human costs are significant, with increasing fatalities and health burdens from extreme weather and pollution.
- Corporate lobbying and messaging play a crucial role in shaping public perception and policy, often deflecting responsibility from industrial activities to individual choices.
- The financial burden of climate change is increasingly borne by individuals and communities through rising insurance premiums, reduced coverage, and direct economic losses, even in areas with seemingly stable utility costs.
- Understanding the interplay between climate science, policy, and economic impacts is vital for informed decision-making by voters and policymakers.