What is climate change

EngineHouse Analysis

Generated 13 April 2026

Key Findings

What is Climate Change Based on the indexed EngineHouse sources, climate change is characterized by the following core phenomena and consequences: ## Primary Drivers and Mechanisms **Rising atmospheric CO2** causes increased global temperatures (named non-reticent scientists group / Extracted Structured Claims). Concentrations of three key greenhouse gases—carbon dioxide, methane, and nitrous oxide—reached record levels in 2024, marking "the single-largest year-on-year increase" (named non-…

Synthesised by EngineHouse Interface

SECTION 2

Evidence

5 claims · 8 passages retrieved

Scientific Claims

- Rising atmospheric CO2 causes increased global temperatures.
- Global warming causes heat waves leading to human mortality and stresses food and water systems.
- Warming oceans and melting land-based ice drive long-term global mean sea level rise.
- global mean sea level rise
- Global greenhouse gas emissions

Key Passages

- ♦ Receive daily updates directly in your inbox - Subscribe here to a topic. ♦ Download the UN News app for your iOS or …
- world temperature Risk and adaptation Science Science communication Sea ice Sea level rise State of the climate Storms T…
- Mainstream climate science has an increasingly poor record of making accurate predictions because it is …
- Presenting a grim overview of the state of the climate in 2025, Ms. Barrett stressed that as glaciers continue to retrea…
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SECTION 3

Data & Evidence

8 structured records

Test PostgreSQL Content

[DIAGRAM PLACEHOLDER]

Knowledge item 'Test PostgreSQL Content' has linked ASIP variables

ASIP variables: { "source": "manual", "location": "global", "timeframe": "immediate", "signals": { "temperature_anomaly": "accelerating global temperature rise", "extreme_weather_events": "extreme weather events affecting food systems", "heat_stress": "heat stress on energy infrastructure" }, "system_effects": { "agricultural_system_collapse": "food systems collapsing under extreme weather",

"energy_grid_failure": "energy infrastructure failing under heat stress", "cascading_infrastructure_failure": "grid failures compounding other risks" }, "human_consequences": { "heat_mortality": "increased mortality from heat exposure", "climate_displacement": "mass migration of billions from uninhabitable regions", "food_affordability_crisis": "affordability crises for vulnerable populations", "mortality_amplification": "grid failures compounding mortality risks" }, "intensity": 8 } temperature driving heat_mortality and energy_grid_stress, extreme_weather_events causing crop_failures leading to food_affordability crisis, sea_level_rise_impacts creating mass_migration, cascading system failures amplifying mortality_risk across multiple pathways

EngineHouse Context

- Test PostgreSQL Content: Climate change is accelerating global temperature rise, leading to increased mortality from heat exp…
- Berkley Earth: EARLY ACCESS 2026 Climate projections, localized. localized. 45 400+ 0.25° 5 8,000+ B E R K E L E Y …
- Lane Test Item: This is a test item for verifying lane controls work correctly in the EngineHouse platform. It has s…

SECTION 5

Consequences

Ecological

Runaway climate change leads to a hothouse Earth scenario.

named non-reticent scientists group

Ecological

Accelerating climate change drives forest fires, permafrost melt, and loss of carbon sinks.

named non-reticent scientists group

Ecological

Changing jet stream and Arctic destabilization lead to extreme weather impacting ecosystems.

named non-reticent scientists group

Summary

- Query: what is climate change
- Sources retrieved: 24
- Question type: semantic
- Generated by EngineHouse Interface