Indicators

Severe Weather Events

Quadrupled since 1980;

doubled since 2004

Rising Temperatures

Last 18 years

hottest on record

Warming of Oceans

Heating 40% faster than estimated 5 years ago

Melting of Ice Caps

Alaskan glaciers melting 100 times faster than estimated

Rising of Oceans

8-9 inches since 1880; 1/3 of rise in past 25 years

Loss of Bio-Diversity

Losing 150-200 species per day

Increasing Levels of Methane

Dramatic rise in past 4 years

Melting of Permafrost

1/5 of frozen soils at high latitudes are thawing rapidly

Increasing levels of CO_2

Now at highest level ever recorded in history

Causes

Burning of fossil fuels (coal, oil, gas) which releases CO2

Industrial agriculture that increases emissions & degrades the soil

Worldwide deforestation & loss of wetlands that absorb CO_2

Feedback loops that accelerate warming

Loss of ice caps leaving more dark ocean to absorb the heat

Melting of permafrost that releases methane

Rapidly growing world population with ever increasing desire for comforts of modern-day life

Long-term ignoring of scientists' warnings

Uncertainties

Multiple warming factors accelerating at an alarming rate

Release of methane from the permafrost could be catastrophic & abrupt

Tipping points that could lead to large changes in a climate system

An ice-free Arctic in the summer could be a trigger for an even greater acceleration

17% of Amazon rainforest already lost; tipping point is 20-25%

The Paris Accord is inadequate & not being implemented fast enough

Key Numbers

1.5C - bad

2-3C - catastrophic

3-5C - possible extinction

Consequences

Severe Water Shortages

Massive Crop Failures Worldwide

Unlivable Temperatures

Unprecedented Fires & Floods

Destabilized Oceans/Depleted Fishing Grounds

Loss of Island Nations & Low-lying Cities

Mass Migrations- Internal & External

Widespread Disease/ Unbreathable Air

Collapse of Ecosystems

Increased Conflicts/War

Political Instability

Social & Economic Collapse

Ways to Mitigate

Rapid elimination of fossil fuels & conversion to green energy/carbon pricing

Massive restoration of forests & wetlands

Rapid spreading of environmentally-friendly farming approaches for crops & animals

Widespread adoption of green building standards & transportation systems

Worldwide adoption of coordinated plan for absorbing large numbers of climate refugees

Elimination of extreme poverty, especially in the Global South

Widespread change in diet from meat-based to plant-based

Strengthening of local agriculture & water systems

Major increase in public transportation & walkability in community design

Establishment of community-owned utilities

Resisting Forces

Viewing climate change as a political issue

Corporations & governments that put money over people

Capitalism in its current form depends on continual economic growth (GDP)

Election of politicians beholden to corporate interests & lobbyists

Mainstream media that lulls us into complacency, presenting everything on an equal level

Increasing nationalism worldwide at a time that demands global cooperation

Complacency based on belief that technology will save us

Incremental, short-term thinking

Massive financial investment required

Feeling like nothing we can do will make a difference

Deep attachment to our way of living

Loss of our sense of inter-connectedness with nature

THE

CLIMATE

CRISIS

What’s

Happening

&

Why

How Bad

How Fast

What Can

Be Done

What can we do in our community in the next 10 years to significantly reduce CO2 emissions and increase community resilience?

This is a test. Can you read this?