

THE CLIMATE FILE



INTRO

This book is designed to introduce students to the climate crisis that is engulfing the Earth and its inhabitants — animal, plant, and human. Actually, it's a series of starting points for further reading and research, for organizing and for effective action on climate justice.

Most scientists who study the climate agree that the change in climate and

habitats are a result of human activity. But we should mention that there are some who insist that climate change and its effects are merely natural cycles — part of the normal process as the Earth evolves and changes. Either way, drastic changes are coming. How will we respond?



FIRST SOME DEFINITIONS

FOSSIL FUELS

Energy sources like coal or gas formed in the geological past from remains of living organisms.

ENVIRONMENT

The Natural World: nature, the earth, the living planet, the ecosystem, the biosphere, Mother Nature; wildlife, flora and fauna, the countryside.

CLIMATE

The weather conditions prevailing in an area in general or over a long period.

ECOLOGY

From the Greek word for “house,” this word means taking care of our house – The Earth.

UNIONS

Groups of workers organized to work together to make their jobs better.

CHAOS

Disorder and confusion

GREEN ENERGY

Energy that is collected from renewable sources, such as sunlight, wind, rain, tides, waves and geothermal heat.

AND A
PREDICTION...

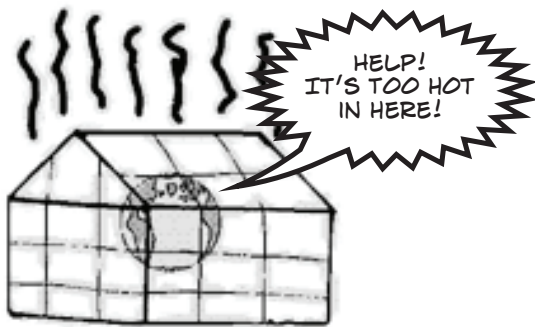
**“THE NEXT FEW YEARS ARE
PROBABLY THE MOST IMPORTANT
IN HUMAN HISTORY”**

-United Nations Panel on Climate Change

**WHAT? WHY DID THEY SAY THAT?
READ ON...**

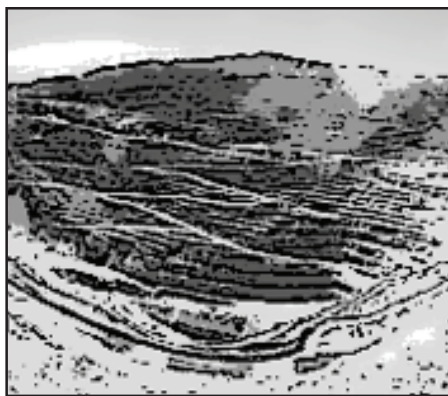
THE CLIMATE TIMES

Climate Chaos Threatens Life on Earth



The Earth Has a Bad Fever

The world around us is changing all the time. Some of the changes seem sudden and dramatic, but they are the result of long-term, subtle and largely invisible changes in our natural environment. Most scientists believe that these changes are caused by many years of burning fossil fuels like gasoline, air pollution and dumping huge amounts of garbage into our oceans and rivers.



Huge mines like this one desecrate the land and destroy the habitats of animals and birds in order to extract minerals, leaving behind industrial waste which renders the land uninhabitable.



Coastal Cities in Danger!

Because of the overheated atmosphere, huge areas of ice are melting. When this happens all over the world, the level of the ocean rises. Cities close to the ocean will be flooded. They will not be livable any more. As weather patterns change, so do the habitats of animals and plants. Arable land where there is no longer rainfall becomes desert. Farms where there is suddenly too much rainfall turn into swamplands where no crops can grow.

Why “Climate Chaos?”

Since people started measuring the temperature of the Earth, things have never been this hot! In fact the 5 hottest years on record have been the years 2014-2019. Huge glaciers are melting and storms of unprecedented frequency and strength are destroying coastal cities and towns, leaving millions of homeless people.

Most scientists agree that these conditions are a result of human activity and that people are going to have to make radical changes in the way they live in order to maintain human life on Earth as we know it.

THE CLIMATE TIMES

Why is the Polar Bear Worried?



Changing climates mean changing habitats. (Habitats are places where people, plants and animals live.) As the Earth gets warmer and warmer, and weather patterns change, animals are unable to live as they normally would. This polar bear's habitat was on the large ice masses that are now breaking apart and melting because of global warming. The bears will now have to learn to adapt quickly to the changing conditions or else face extinction.

Floating Islands of Garbage

The Great Pacific Garbage Patch is a collection of marine debris - garbage - in the North Pacific Ocean. Marine debris is litter that people and companies throw away. It ends up in rivers, oceans, seas, and other large bodies of water.

The Great Pacific Garbage Patch spans waters from the West Coast of North America to Japan. The patch is actually two patches: the Western Garbage Patch, located near Japan, and the Eastern Garbage Patch, located between the U.S. states of Hawaii and California.



War on the Jungle

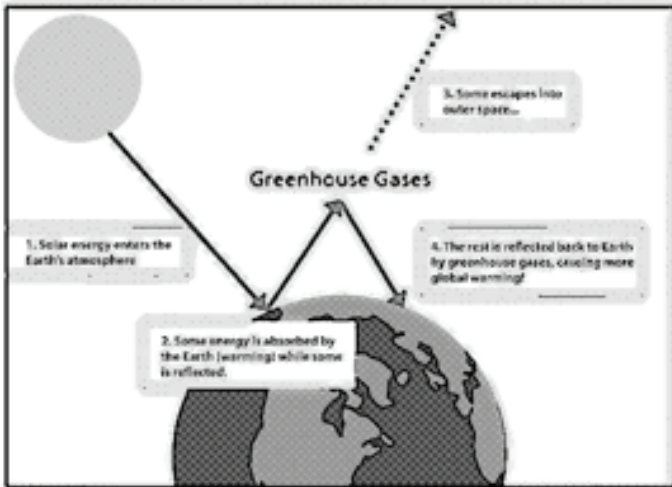
People have cut down so many trees that there is only one big jungle left on earth - the Amazon rainforest. There are a great many animals, insects and plants that live there and nowhere else. The rainforest also absorbs huge amounts of CO₂, which humans breathe out, and exhales huge amounts of oxygen, which humans breathe in and need to stay alive.

But there are people and companies who are cutting down the rainforest to clear the land to make farms and raise cattle, which effectively kills off the living species. The rainforest is also home to millions of indigenous people living in traditional ways. When the jungle is destroyed, their way of life is destroyed as well.



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What is the Greenhouse Effect?

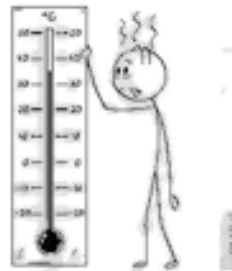


The fact that the world is growing warmer and warmer makes storms more intense and makes them last longer. Warmer weather dries out forests which makes them more liable to catch fire and burn very rapidly.



The greenhouse effect is a process that occurs when gases in Earth's atmosphere trap the Sun's heat. This process makes Earth much warmer than it would be without an atmosphere. The greenhouse effect is one of the things that makes Earth a comfortable place to live. But when too much of the heat is trapped, because of the release of so much CO₂, the Earth overheats. Huge ice formations melt and climate patterns become more intense.

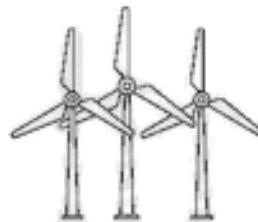
Also in Today's Paper



Scientists predict that the global average surface temperature for the next five years will be one degree Celsius above pre-industrial levels, and the decade from 2014 to 2023 could end up being the warmest in over 150 years of records.



Truck and automobile exhaust accounts for 20% of the total amount of carbon released into the atmosphere each year. If more people use mass transit, the less exhaust. The less exhaust, the less CO₂!



Alternative, "cleaner" sources of energy - solar, wind-generated, will have to replace "dirty" sources like coal, fossil fuels, nuclear energy, and natural gas if life on Earth as we know it is to survive.

THE CLIMATE TIMES

HOW LARGE IS
YOUR CARBON



FOOTPRINT?

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The Trouble with Carbon

Carbon is harmful to the atmosphere because it prevents reflected sunlight from escaping as it normally would. Instead, it adds to the heat. We put most carbon into the air in the form of CO₂.

Your “climate footprint” is a measure of how much carbon you are releasing into the atmosphere because of the way you live. Is your way of life helping or harming the Earth? Each of us has the responsibility to pollute as little as possible because the earth’s health affects all of us. To find out your climate footprint, Go to <https://www.nature.org/en-us/get-involved/how-to-help/consider-your-impact/carbon-calculator>

The Earth has enough to provide for everyone’s needs, not for everyone’s greed.

Mahatma Gandhi



Are the Birds and the Bees Our Mine Canaries?

Miners used to carry caged canaries with them while they worked. If there were any poisonous gases in the mine, the canary would die before the levels of gas became fatal to humans.

Now, as the rate of global warming, pollution and habitat destruction accelerates, we are seeing nearly entire bird and insect populations die off: since 1979, the bird population in the US and Canada has fallen by 29%, or **3 billion birds**.

The bumblebee population in the US **has fallen nearly 90%** since the 1990s. Much the same has happened the monarch butterfly, and to King Penguins.

The question is, shouldn’t we be disturbed by this? What’s going on? Is something happening to life on Earth that we are not fully aware of? Are we next? The miners in the story left the mines when the birds died.

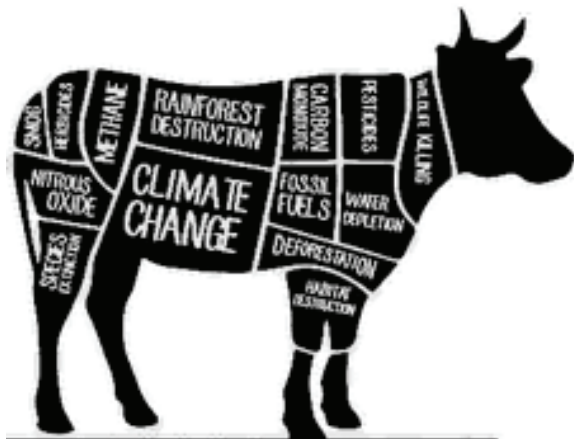
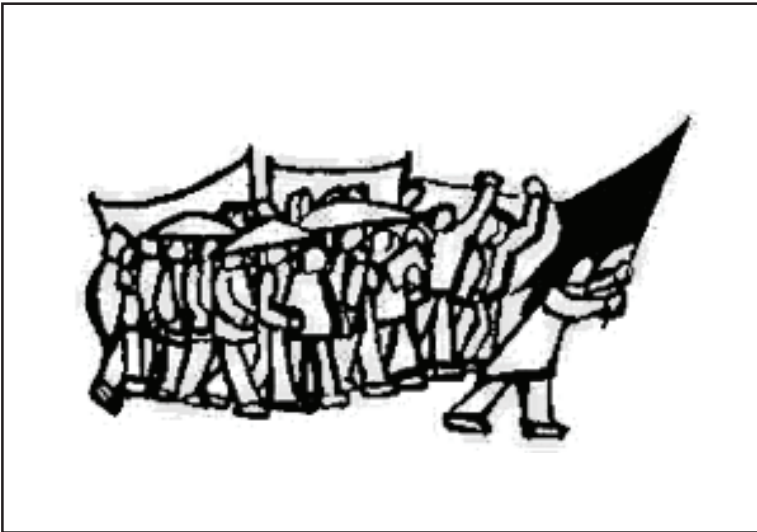
But we have nowhere to go!

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Can We Really Do It?

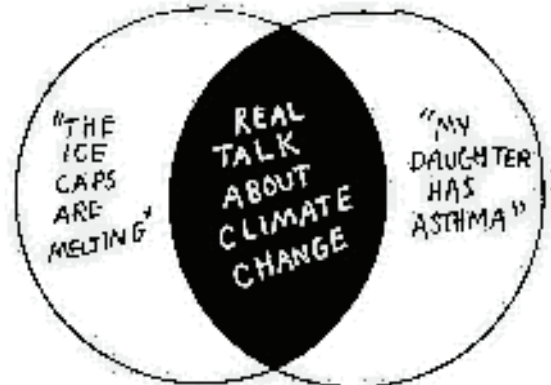
(That is, save ourselves?)

During times of national crisis and emergency, such as the Great Depression and World War 2, people and their governments united around social and political issues that helped millions of impoverished people and conducted a successful war against fascism. This is another such national-and worldwide crisis.



What you eat really matters!

Global beef and dairy consumption is on the rise – and it generates more greenhouse gas (GHG) emissions than all the world's cars.. Cattle are responsible for 9% of all human-induced greenhouse gas emissions. Raising cattle requires huge amounts of water, grazing land that could be used to benefit humans, and releases toxic methane gas into the atmosphere.



The effects of climate chaos are personal as well as social and political. Climate change increases water and air pollution which can cause and aggravate chronic respiratory diseases, such as asthma.

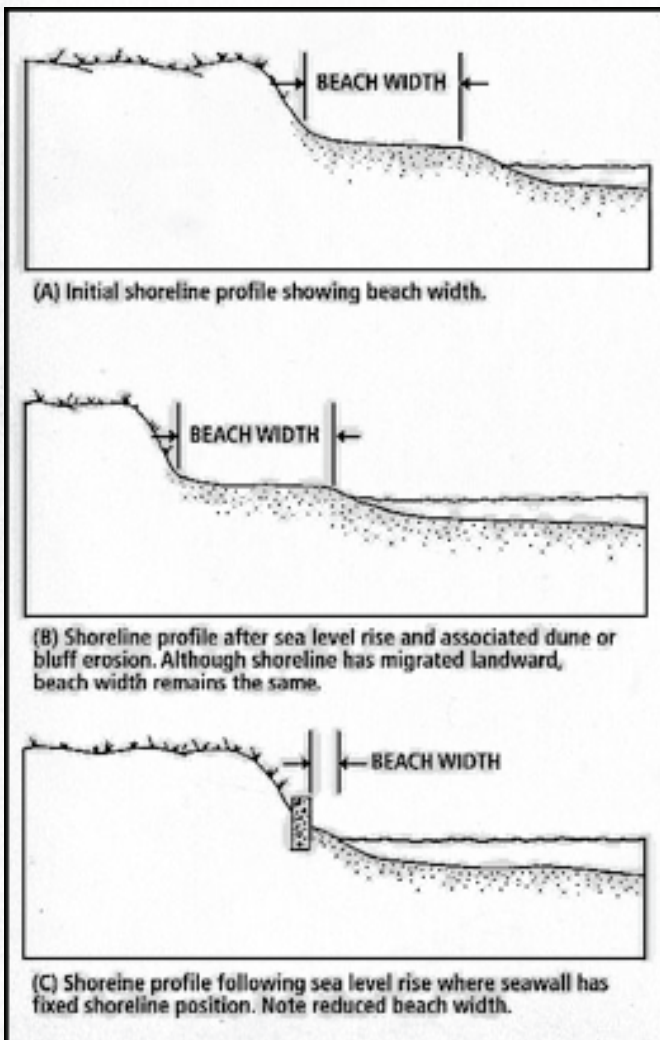
THE CLIMATE TIMES

Aguas! Deep Waters! Rising Oceans!

AS SEA LEVELS RISE IN THE FUTURE, BEACHES, HOMES AND BUSINESSES IN AND AROUND COASTAL CITIES ALL OVER THE WORLD WILL BECOME PERMANENTLY FLOODED. WHAT CAN BE DONE ABOUT THIS? SOME IDEAS ARE. . .

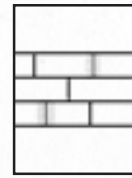
Build a Seawall

People who have homes and businesses near the ocean want to make walls and put them in the way of the ocean to hold it back. But sea walls have problems. First, it costs a lot of money to build a sea wall that will last. Then, the part in front of the wall gets flooded, and the rest of the beach “dies” because the wall keeps the waves from making new sand. In fact, some scientists say, “Sea walls kill beaches.”



“Nourish” the Beach

“Nourish” means to move a lot of sand from somewhere else to replace the sand that rising oceans have washed away. But this is very expensive. The ecology of the places where the sand is taken is degraded. And beach nourishment is not a long-term solution; eventually waves and storms will erode away the additional sand, and the nourishment will have to be repeated periodically.



Managed Retreat

Managed, or planned, retreat allows the shoreline to advance inward unimpeded. As the ocean rises, and the shore erodes, buildings and other infrastructure are either demolished or relocated inland. It can also involve setting back a line of actively maintained defenses to a new line inland of the original – or preferably to rising ground. The problem, of course is that if your home or business or farm is near the shore, you don’t *want* to abandon it!

But many people insist that “managed retreat” is the best long term solution to rising oceans.

Can you help save your coastal town?
Go to
<https://www.latimes.com/projects/la-me-climate-change-ocean-game/>
And see for yourself!

THE BLUE AND THE GREEN

A DIALOGUE

BLUE is a “blue collar” working person who is very worried about having a job and feeding a family.

GREEN is also a working person, an environmentalist who is very worried about the future of life on Earth.

What do people mean when they say “Climate change” anyway? Why should I care about it? what does it have to do with me?

“Climate Change” refers to changes in the long-term history of the climate on Earth. Climate Change affects everything and everyone. Now, one of the effects is Global Warming, which is actually Global Overheating.

OK, OK, I get what you’re talking about! Sure I want to save the Earth — you think I’m crazy? But I need a job to survive. You can’t go into a store and tell them that you don’t have the money you owe because you want to save the Earth! They would kick you out!

Of course that’s right, but remember, all these conditions are affecting you, too! They are putting you and you family at risk — now and especially in the future. The storms and fires and droughts and floods that climate change brings — you and your children and their children will have to deal with them. How about coastal cities ending up underwater because of melting ice caps?

STUDY 630 MILLION PEOPLE, 350,000 HOMES AT RISK FROM RISING SEAS

DIALOGUE CONTINUED...

All right, there's a crisis! But you don't seem to get it — none of this puts food on the table. I've had a job all my life. If you have your way, my job might be gone!

Right — climate change will make some jobs obsolete! But here's my point. It will take lots of work to rebuild those cities. It will take lots of work to build clean energy sources, like windmills and solar networks and to install them. We will need retraining programs so workers can be trained to do jobs that help, not harm the Earth.

But aren't all these fossil fuel companies big corporations? They're not going to go along with this. They want to save their profits, don't they? And they give lots of people jobs, don't they?

Sure, but a lot of these jobs are making climate change worse and depend on destroying the environment. That's where their profits come from — from our work. So all of us together have to demand a Green New Deal and climate justice! Look at the Green New Deal passed by the city of Los Angeles!



DIALOGUE CONTINUED...

Oh, great! Now it's about "Climate Justice!" I get the part about saving the earth and our way of life, but What does "climate justice" mean?

Climate justice means that it's not just about the Earth, and the environment. It's also about working people taking power over energy, transportation, food production and running them for the good of everybody. It's an enormous job. And people say that the Green New Deal destroys jobs!!

Oh yes, The Great Green New Deal! I've been hearing a lot about this Green New Deal thing. There was a New Deal during the Great Depression, right? People took action and demanded jobs, right?

Yes — So the government spent lots of money to put people to work. They built roads, dams bridges and other huge infrastructure projects. They collected music and personal histories and made paintings in public places.



DIALOGUE CONTINUED...

These projects sound great, they really do, and it's important to change over to a green economy. But how much will I get paid? 13 dollars an hour? 15 dollars an hour? Counting benefits, some union journeymen make 74 dollars an hour. If I take a paycut to save the Earth, how will I pay my bills?

I know, I know. All that has to be figured out, but there really isn't a choice for us, you know. The process of global overheating is already happening. Our way of life is killing off living species and polluting our waters.

Agreed! But we must also be careful about the impact on the lives of workers. Our unions can take the lead in this! Unions know what workers need!

Of course we are working people. It's good to see that you are aware of the situation. Now we've got to get together and make this happen. Check what's happening in your own **COMMUNITY!** Everywhere, people are getting together to organize and respond to the situation!



WHAT HAS TO BE DONE?

LOS ANGELES' GREEN NEW DEAL

1 UPHOLD THE PARIS CLIMATE AGREEMENT.

2

PROMISE TO DELIVER ENVIRONMENTAL JUSTICE THROUGH AN INCLUSIVE GREEN ECONOMY.

3

A PLAN TO ENSURE EVERY ANGELENO HAS THE ABILITY TO JOIN THE GREEN ECONOMY BY CREATING PIPELINES TO GOOD PAYING GREEN JOBS.

4

A DETERMINATION TO LEAD BY EXAMPLE WITHIN CITY GOVERNMENT, SHOWING THE WORLD WHAT AN URBAN GREEN NEW DEAL LOOKS LIKE IN PRACTICE.



THE GREEN NEW DEAL LEADS TO ZERO OUT LOS ANGELES' MAIN SOURCES OF HARMFUL EMISSIONS — BUILDINGS, TRANSPORTATION, ELECTRICITY, AND TRASH. OUR ACCELERATED GOALS AND NEW TARGETS INCLUDE:

✚ Building a zero-carbon electricity grid — reaching an accelerated goal of 80 percent renewable energy supply by 2036 as we lead California toward 100 percent renewables by 2045.

✚ Bringing city, labor, educational, and business leaders together to support our effort to create 300,000 green jobs by 2035 and 400,000 by 2050.

✚ Mandating that all new municipally owned buildings and major renovations be all-electric, effective immediately, and that every building in Los Angeles — from skyscrapers to single family homes — become emissions free by 2050.

✚ Achieving a zero waste future by phasing out styrofoam by 2021, ending the use of plastic straws and single-use takeout containers by 2028, and no longer sending any trash to landfills by 2050.

✚ Recycling 100 percent of our wastewater by 2035, sourcing 70 percent of our water locally — a significant increase from our existing pathway, and nearly tripling the maximum amount of stormwater captured.

✚ Planting and maintaining at least 90,000 trees — which will provide 61 million square feet of shade — citywide by 2021 and increasing tree canopy in low-income, severely heat impacted areas by at least 50 percent by 2028.



WHAT HAS TO BE DONE?

THE WORK BEFORE US

1. Replace fossil fuel, coal, nuclear and other “dirty” energy sources with renewable energy including solar, wind and geothermal.
2. Construct mass transit systems, electric vehicle charging stations and high-speed rail systems to replace gas-driven cars.
3. Build water and energy efficient buildings and communities.
4. Plant billions of trees.
5. Build pedestrian-friendly upgrades to existing streets and metro areas.
6. Establish biorefineries and alternative fuels for airplanes.
7. Develop sustainable building materials using green chemistry.
8. Cleanup and renewal of polluted, radioactive and degraded environments such as the ocean and freshwater systems.
9. Feed, care for and support victims of catastrophic climate events. Build and maintain replacement housing.
10. Educate the public at large to live in harmony with, and not in opposition to, natural processes.

JUST A FEW EXAMPLES
OF THE WORK IT WILL
TAKE TO SAVE THE
EARTH AND THE PEOPLE
AND ANIMALS WHO LIVE
ON IT.



WHAT HAS TO BE DONE?

YES THEY COULD! YOU CAN, TOO!



CHICO MENDES

(1944-1988)

Chico Mendes was a "tapper," a worker who lives and harvests rubber trees in the Brazilian rainforest. He became leader of the Tappers' Union in 1980. His union fought for workplace rights and preservation of the rainforest ecology against rich ranching interests. Mendes' work brought worldwide attention to the destruction of the Amazon jungle. The union organized nonviolent actions to resist the takeover of tapper communities and block bulldozers and chainsaw crews. A cattle rancher's son murdered him in 1988. A film about Mendes' life and work, entitled "The Burning Season" was released in 1994.

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GRETA THUNBERG

(2003 - CURRENT)

When she was eight years old, a Swedish girl named Greta Thunberg first heard about the climate crisis. She began organizing student strikes to protest the lack of attention being paid to the climate crisis. She and her colleagues called her campaign "Fridays for the Future." Addressing a United Nations Climate committee in 2019, she said, "I shouldn't be up here. I should be back at school on the other side of the ocean. Yet you all come to us young people for hope. How dare you! You have stolen my dreams and my childhood with your empty words. You care more about money and fairytales of economic growth than collapsing ecosystems, mass extinctions and people suffering because of climate change."

WHAT WE CALL SOMETHING REALLY CHANGES HOW WE THINK ABOUT IT

- + What if instead of “Climate Change” we called it “**Climate Chaos**” or “**Climate Catastrophe**?”
- + What if instead of “Clean Rivers” we said, “**Living Rivers**?”
- + What is instead of “conversation” and “preservation” we said, “**regeneration**?”
- + What if we called “Habitat Destruction” what it is — “**Ecocide**”
- + What if instead of saying, “Fossil Fuels” we always said, “**Dirty Fuels**?”
- + What if “Natural Resources” were called “**Living Systems**?”
- + “Global Warming” is really “**Global Overheating**” isn’t it?



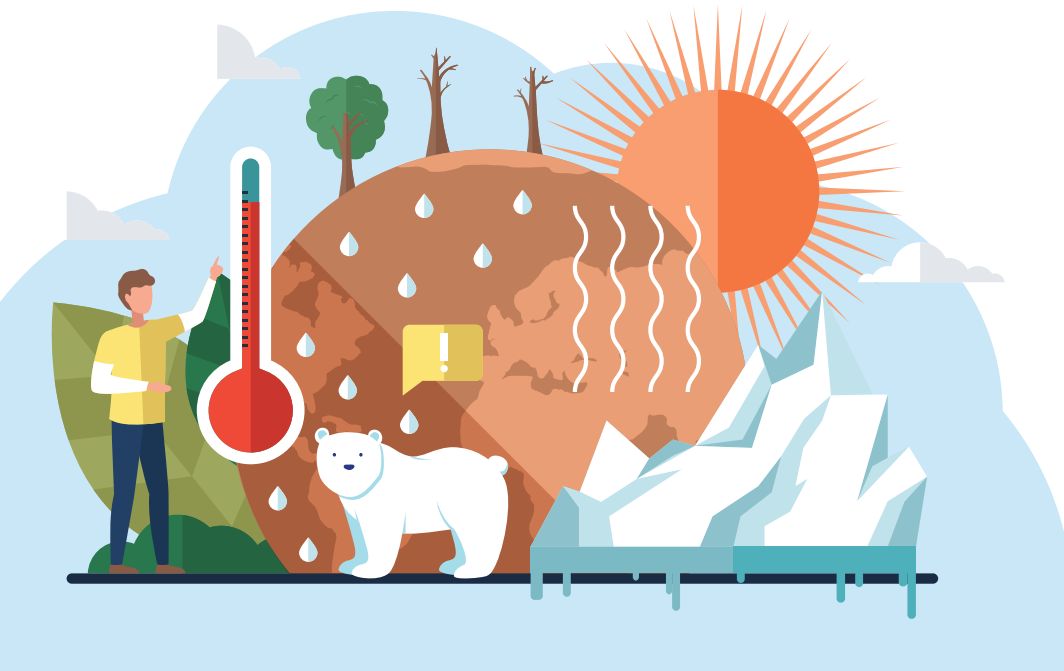
PUTTING IT ALL TOGETHER

CLIMATE CHANGE AND CALIFORNIA

1. Nearly 800 miles of coastline, many coastal cities vulnerable to inundation with rising oceans.
2. Dying forests because of drought, fires, and pests, like the bark beetle, which used to die off in the winter but now, with rising temperatures, survives in larger numbers.



3. Polluted oceans and rivers, declining numbers of fish, insect and animal populations.



WE'LL SAY IT ONCE AGAIN

CLIMATE CHANGE AND CALIFORNIA

1. People need jobs in order to survive and afford the things they and their families need.
2. Many of the jobs people are given to do mean that they have to exploit and/or destroy the natural world and the earth's resources, so...
3. How can people get the things (food, shelter, medical care, etc.) they need to survive without further destroying the Earth?

WHAT DO YOU THINK?
WHAT CAN YOU DO?

WHO CAN YOU JOIN UP WITH
TO MAKE A MOVEMENT TO
COUNTERACT THE EFFECTS
OF CLIMATE CHAOS?



THE CFT LABOR AND CLIMATE JUSTICE EDUCATION COMMITTEE

The **Labor and Climate Justice Education Committee** is dedicated to creating and disseminating educational materials on the labor movement and climate justice for teachers and students and to implement their use in California's schools.

Our committee believes, along with the great majority of climate scientists, that human activity is the major cause of global warming. Others believe that the warming trend is a result of other things — the sun, for example — and that warnings of climate-based catastrophe are overly alarmist.

The committee has created and published a series of labor education materials — books, videos, simulations — and other curricula to educate the students of California about the labor movement. The materials span grade levels Kindergarten to 12th grade and beyond. These can be reviewed, downloaded for free, or purchased at **cft.org/curricula**.

