

Intersectional Environmentalism

CARMINA
IOIA

Knowledge Dissemination
Professor Evan Light
December 14-20



layout

DEFINING

FUNGUS AND THE ENVIRONMENT

HISTORY

BLACK COMMUNITIES

INDIGENOUS COMMUNITIES

LATINX COMMUNITIES

ALLYSHIP

defining



what is intersectional environmentalism?

"This is an **inclusive** version of environmentalism that advocates for both the **protection of people and the planet**. It identifies the ways in which **injustices** happening to **marginalized communities** and the **earth** are **interconnected**. It brings injustices done to the most vulnerable communities, and the earth to the forefront and does not minimize or silence social inequality. Intersectional environmentalism advocates for justice for people + the planet."

-Leah Thomas



**"WE'VE GOT TO
DIVEST FROM
SYSTEMS THAT ARE
KILLING US AND
COSTING US, AND
INVEST IN OUR
PEOPLE AND OUR
PLANET"**

-HEATHER MCGHEE, SENIOR FELLOW AT
DEMOS + AUTHOR



fungus and
the
environment


MYCELIUM



Dr. Suzanne Simard/ Exchange of
nutrients/ Wood Wide Web



Dr. Simard grew up in the forests of BC, Canada



Her first experience with the underground world was through an outhouse, where her dog fell in the hole. While her grandpa was digging to get him out, that's when she first noticed the underground pathways (mycelium) and various colourful sediments.

While at university, scientists discovered one pine seedling root could transmit carbon to another pine seedling root. This was in a controlled environment, and Dr. Simard wanted to replicate this in nature...



1997

XXXXXXXXXXXXXXXXXXXXX
Replicating lab discovery in forests of BC
XXXXXXXXXXXXXXXXXXXXX

- grew 80 replicates of 3 species (paper birch, douglas fir, western red cedar)

- injected 2 different isotopes into separate tree bags

- discovery!! = birch and fir were communicating by carbon exchanges, they are interdependent and coexist with each other

- conversing through carbon, nitrogen, phosphorous, water exchange, defense signals, and hormones

this is information!!!



(I will never forget being chased by a mama bear and her cub the first day into our research)

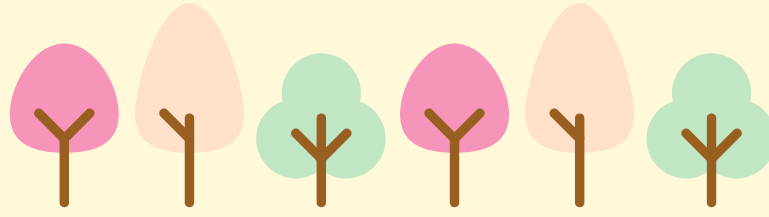
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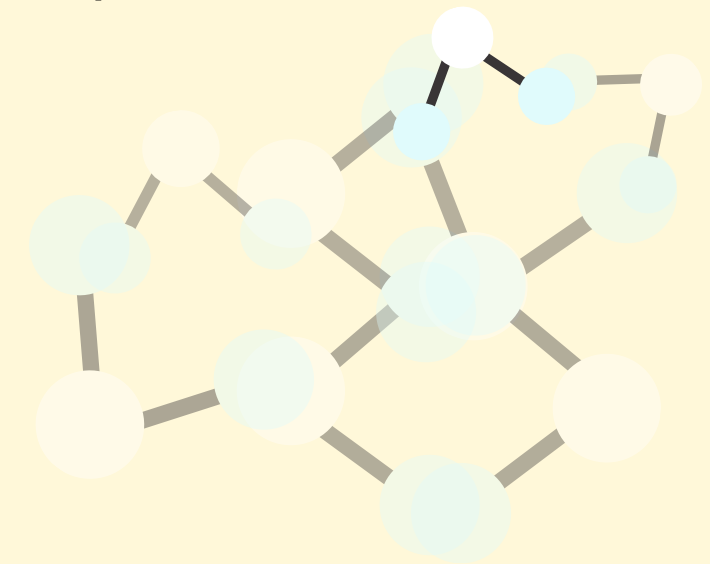
- reproductive organs of mycelium (fungal threads) are mushrooms
- where these fungal cells interact with root cells, there's a trade of **carbon** for **nutrients**

there can be hundreds of kilometers of mycelium under one single footprint!

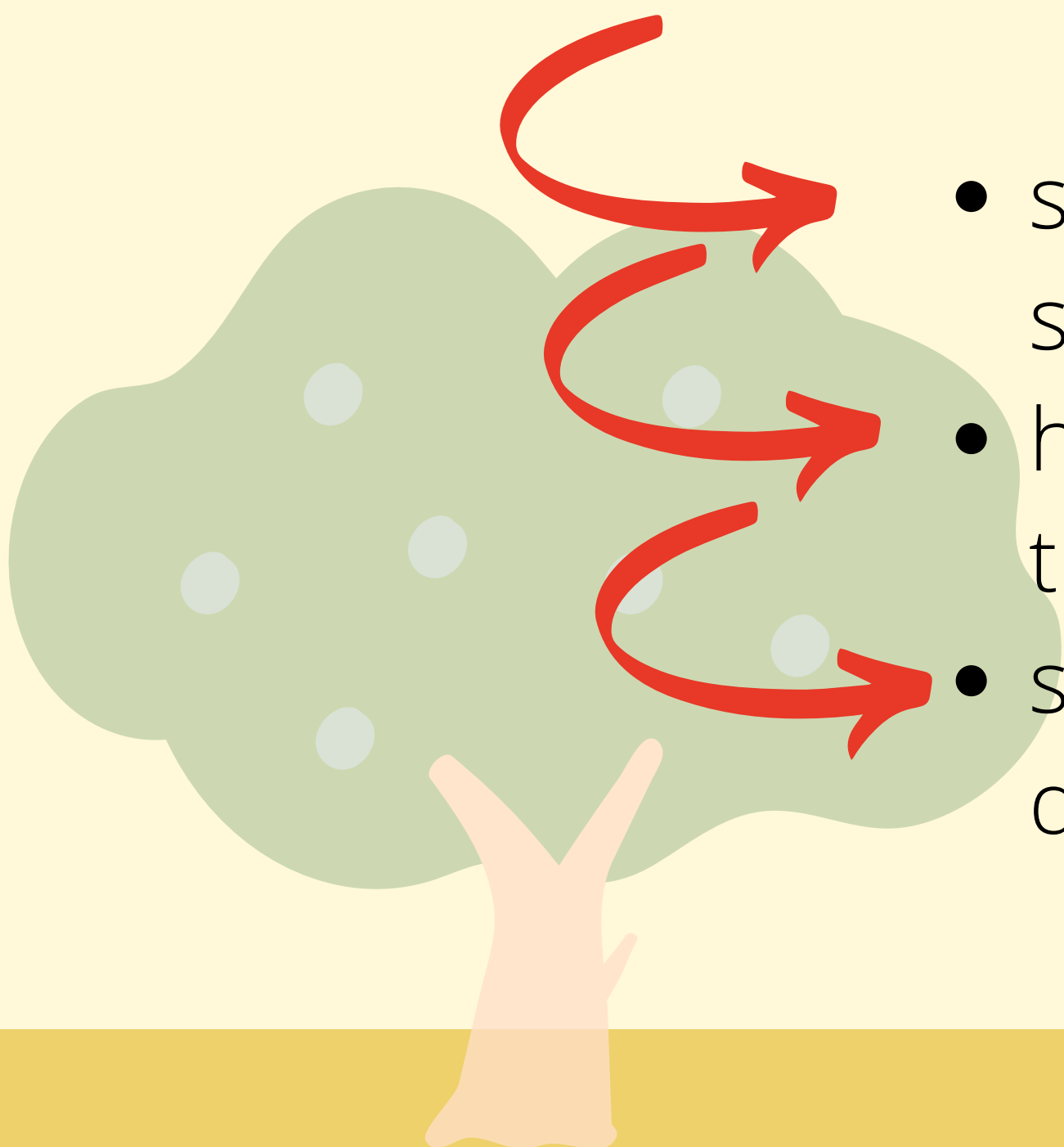


- connects individuals of the same AND different species

- works like the internet (nodes + links)



- hub (mother) trees nurture their young and can be connected to hundreds of other trees



- send excess carbon to younger seedlings
- have been shown to prioritize their kin
- send messages of wisdom when dying to neighbouring seedlings

Ecologist, Professor

Dr. Suzanne Simard

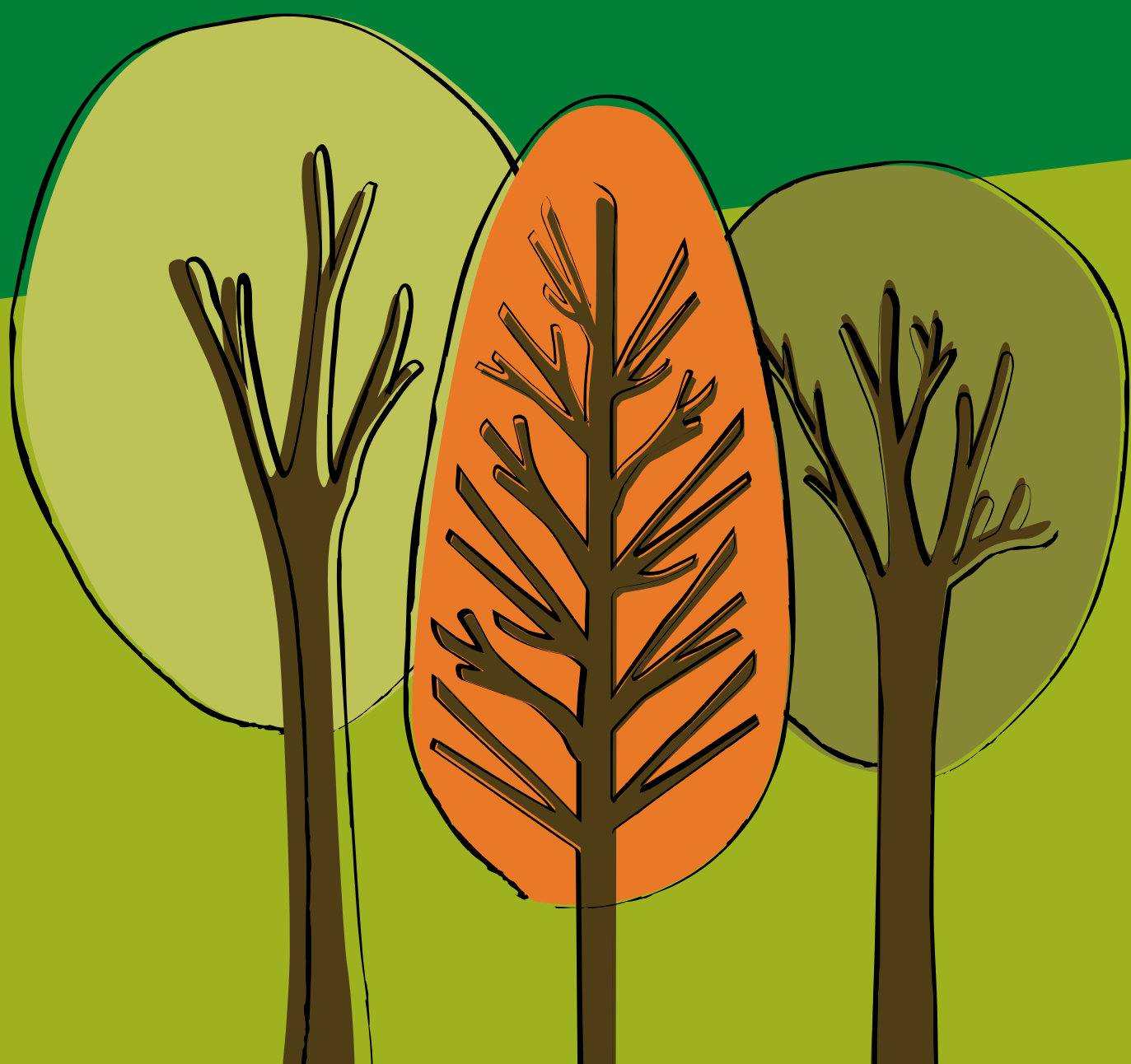
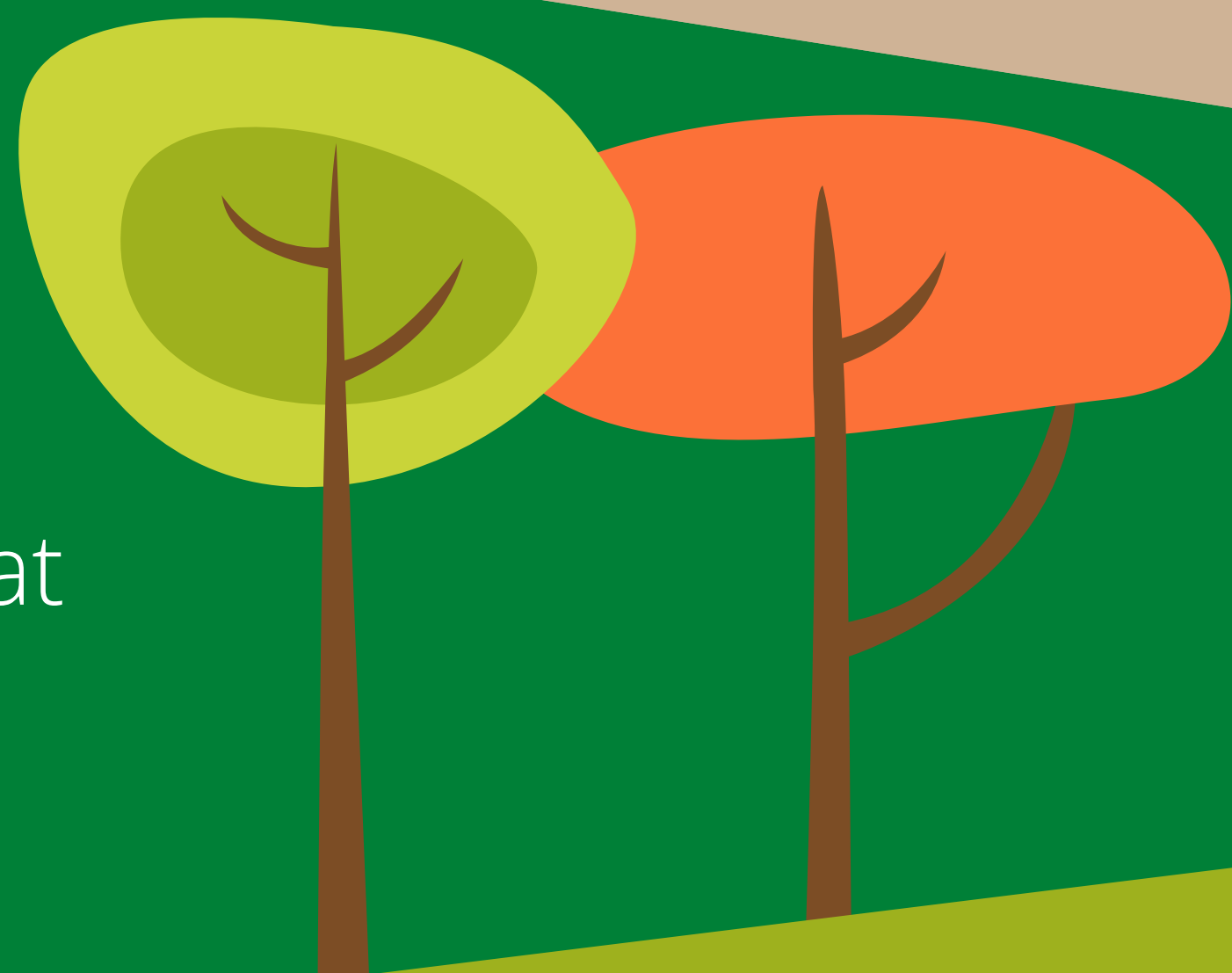
An overview



- showed how fungal thread **mycelium**, a web-like underground system allowing for communication, nutrient-exchange, and coexistence, acts as the neurological network of the forest



- specializes in birch, fir and cedar trees
 - plants communicating through signals; nutrient exchange, threat signals, carbon transfer, mother trees



- trees work better in a community; there is synergy between their interactions
- though there is competition in these communities, there is more cooperation and coexistence

history



The Environmental Justice Movement

Protests inspired by civil rights movements; Latino farm workers in California for workplace rights and protection from harmful pesticides, African American students against a garbage dump in Houston, siting of a sewage treatment plant in West Harlem, Memphis Sanitation Strike



Bean vs Southwestern Waste Management Corp, Houston, TX
Dr. Robert Bullard, considered the **father of env. justice**, helped his wife file a lawsuit against a landfill in Texas

1960-1969

Sit-in protest against Warren County, NC PCB landfill



1982

EPA Administrator creates the Environmental Equity Workgroup

1979

Indigenous Environmental Network (IEN) formed



1990

President Bill Clinton signed Executive Order 12898, Federal Actions to Address Environmental Injustice in Minority and low-Income Populations

1990
Leah Thomas, inspired by intersectional feminism, popularized intersectional environmentalism. She is at the forefront of the movement

1994



2020

Black
communities



AGRICULTURE

Our relationship with food is foundational to our health and to the health of the environment. The industrialization of agriculture, which started during WW2, has had negative lasting impacts on women + POC and the climate.

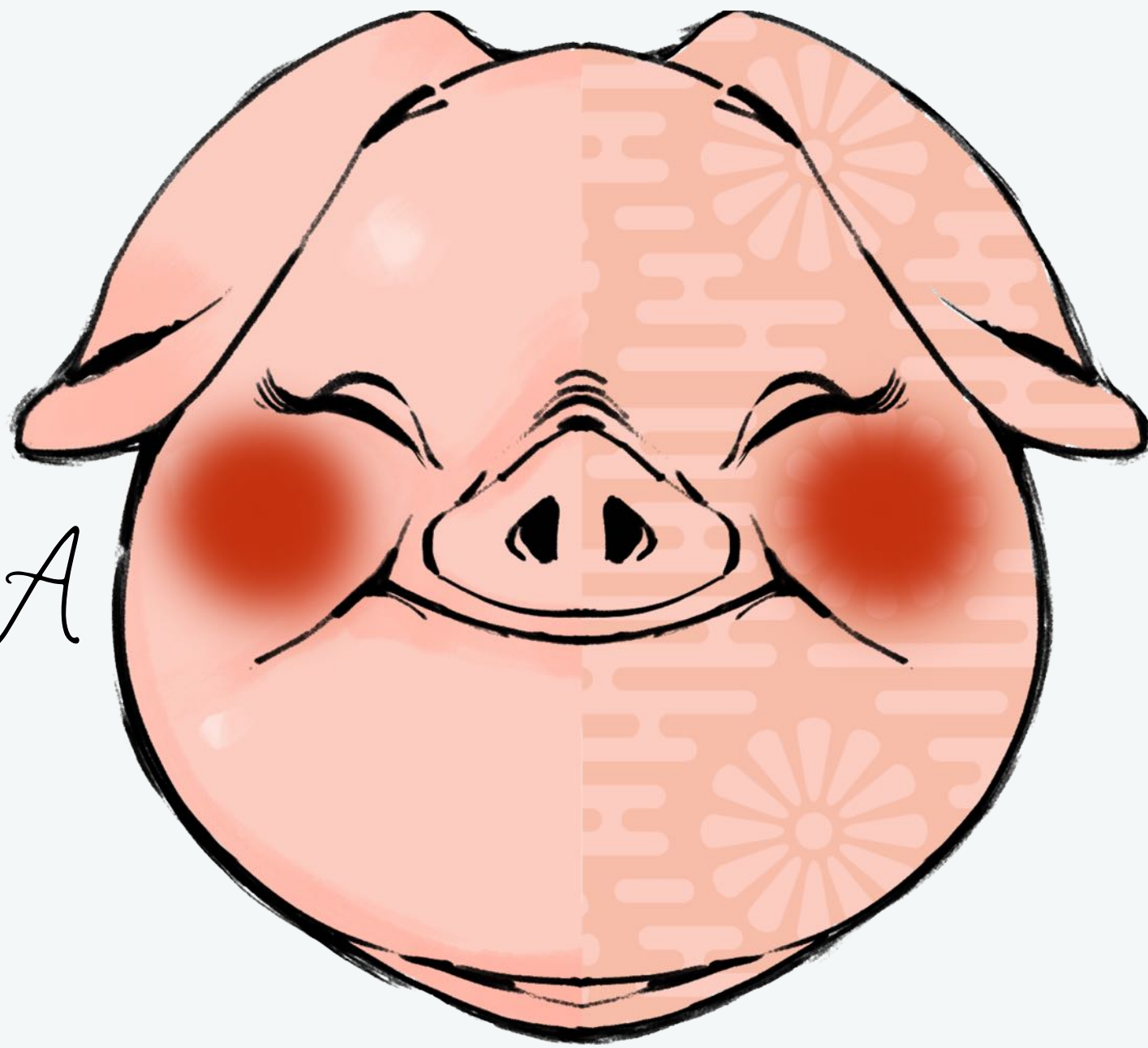
Climate: 26% of greenhouse gas emissions come from food, where 58% of that comes solely from the animal industry

Women + POC: lack of land rights, gender bias in the economic system, gender specific obstacles

We must support **local, regenerative, organic** farmers to nourish ourselves and our communities; it is a sustainable transition for our bodies and for the planet.

A disproportionate amount of industrialized farms, slaughterhouses and processing facilities are located near low socio-economic areas and communities of colour

WHY
NORTH
CAROLINA
HAS



GIANT
LAGOONS
OF
POOP!

USA's third-
largest producer
of swine,
Eastern North
Carolina.
Smithfield
Foods

The states' 10
million pigs affect
Black
communities
situated closest to
these industrial
hog farms

Amount of feces a
pig produces is
10x higher than a
human. Lack of
waste treatment
= poop lagoons

BBQs and air drying laundry outside become impossible when the stench of feces never goes away. Cheap meat has consequences for animals as well as humans, especially POC. Black and brown people disproportionately live near these farms, who dispose of pig feces in open lagoons and spray it into the air as fertilizer. These communities not only have to live with the smell, but also a higher risk of asthma, cancer, and death due to proximity of these farms. Wells also get contaminated, creating a water problem. **15, 000 Olympic-size pools of wet animal waste are produced each year in North Carolina.**

FERTILIZER

FLINT WATER

CRISIS

April 2014-
June 2016

Flint,
Michigan

public health
crisis

Residents
exposed to
dangerous levels
of lead

Due to Michigan's struggling economy, an unelected emergency manager was appointed to run the city. He switched the city's water supply from Detroit Water and Sewage Department (DWSD) to the Flint River as a cost-savings measure.

After this change:

- residents advised twice to boil water due to increase in bacteria
- General Motors announced water was corroding their machine parts
- a spike in Legionnaire disease
- elevated levels of carcinogenic trihalomethanes were detected in the water
- dangerous levels of lead detected at U of M-Flint campus

A home drinking water test found concentrations of lead 25x higher than level deemed safe by EPA and far exceeded criteria for classifying water as **hazardous waste**



the underlying problem?

The disaster flowed through one of Michigan's poorest, blackest cities ridden by poverty and racism. Flint is a city that is almost 57% Black and individuals face extreme poverty.

The community faces disproportionate effects of systemic neglect due to weak environmental regulations.

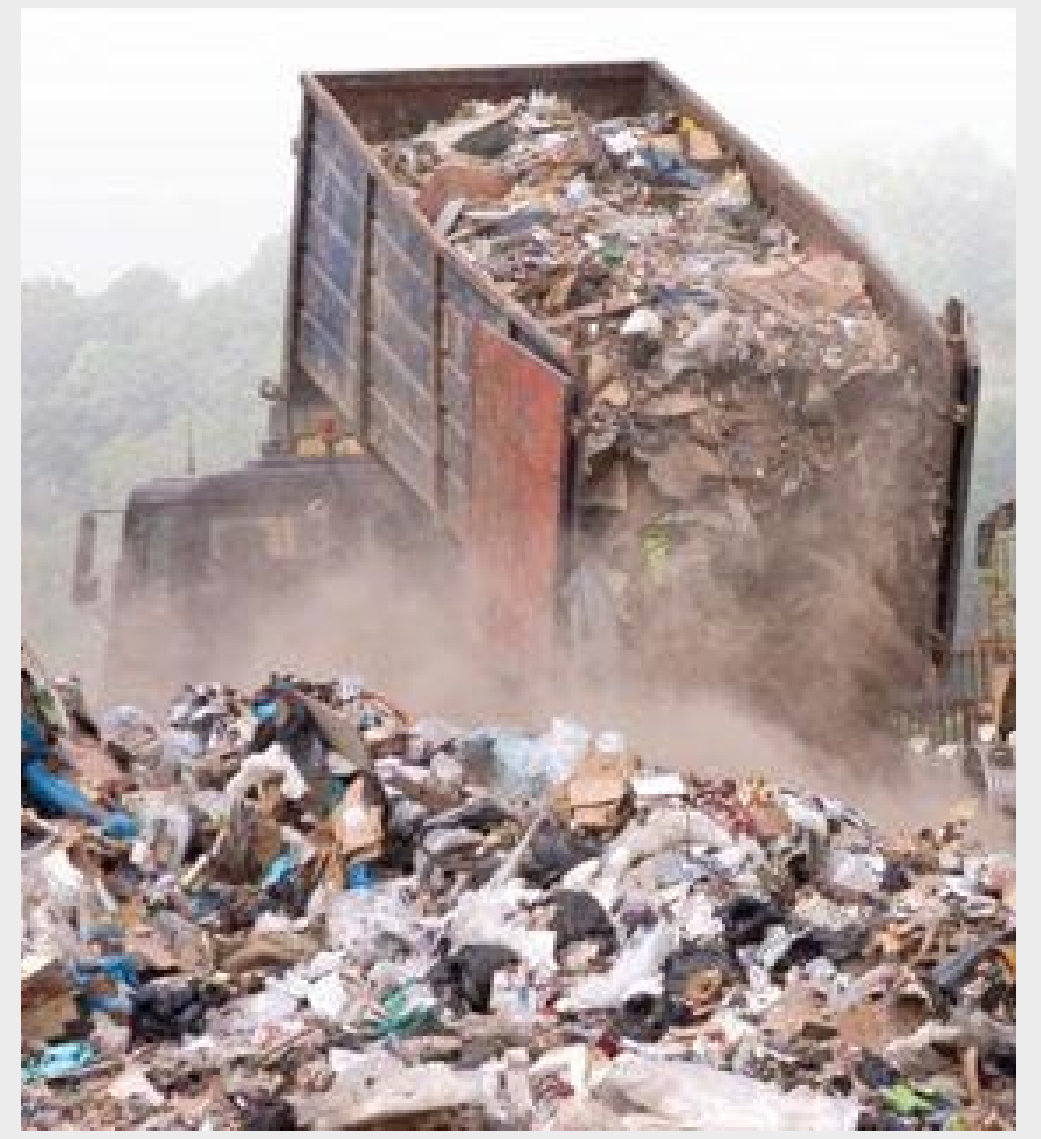
The delayed and irresponsible assistance to the Flint community despite concerns to health safety is evidence of disproportionate environmental injustice.





Chem-Waste Management opened its facility in 1978. At the time, Emelle residents were 94% African-American and poor; now the number stands at more than 75%. The community was lied to: they had been told a brick factory was underway to bring in new jobs. Barrels of waste came in 24/7, from the US and foreign countries as well, in aims of maximizing profit.

Workers' (who were exposed to countless chemicals) shoes would melt off their feet due to lack of protective equipment and respirators. When it came to taking action, people got silent; residents and officials alike. Chem-Waste was funding many companies in the county, thus why it had a strong standing. Citizens were scared of losing their businesses over speaking out.



Among other important findings, a 1987 national report on toxic waste and race built upon 2 cross-sectional studies found that "race proved to be the most significant association with the location of commercial hazardous waste facilities" and "communities with the highest number of waste facilities had the highest composition of racial and ethnic residents."



Chem-Waste :
Emelle, Alabama



Indigenous communities

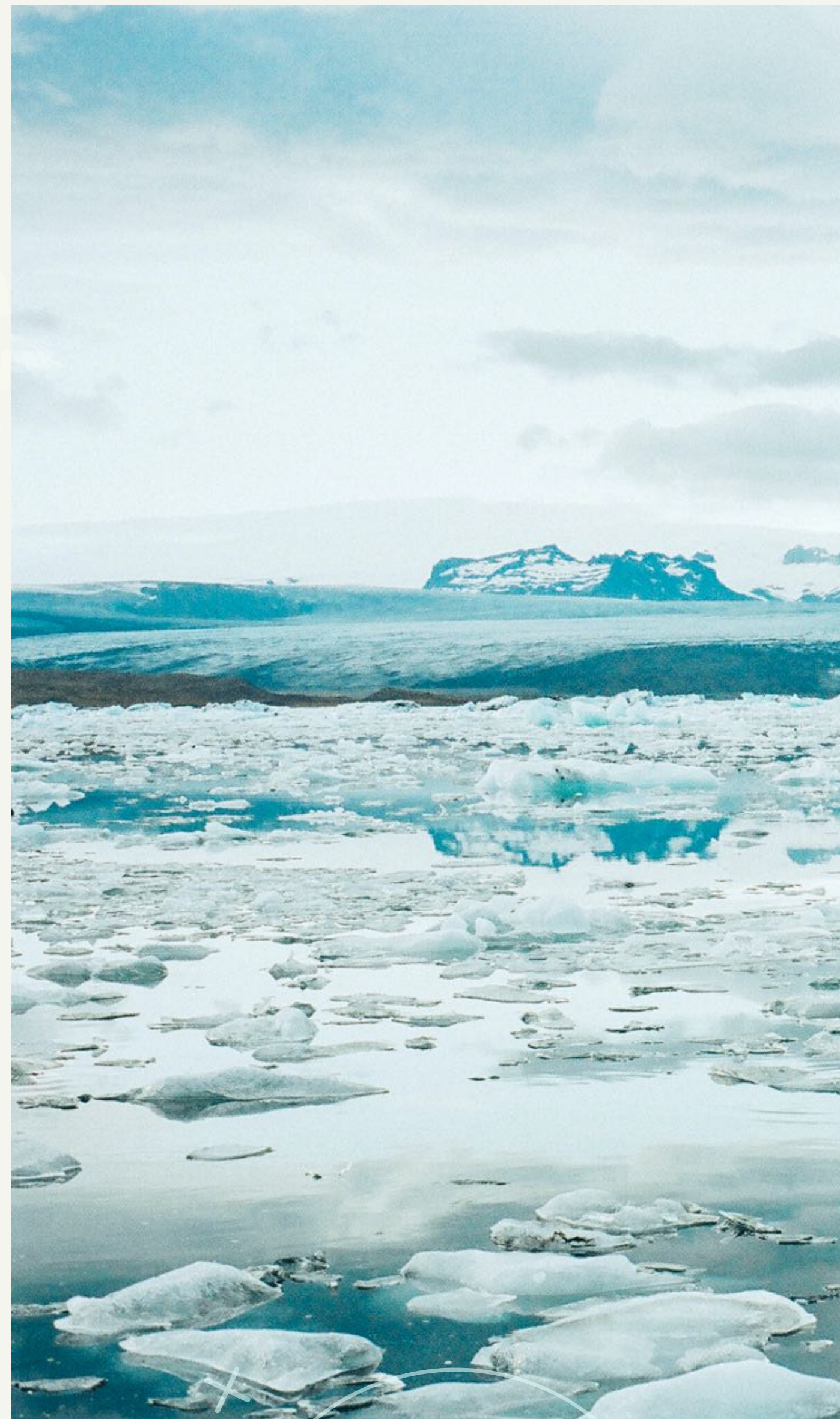


forced displacement of Arctic Indigenous communities

Climate change greatly affects the most remote communities. One of the first will be Arctic Indigenous communities. As ice sheets melt, tribes are no longer able to sustain themselves through hunting, as the ice affects wild and marine life. This leads to forced displacement and thousands of climate refugees.




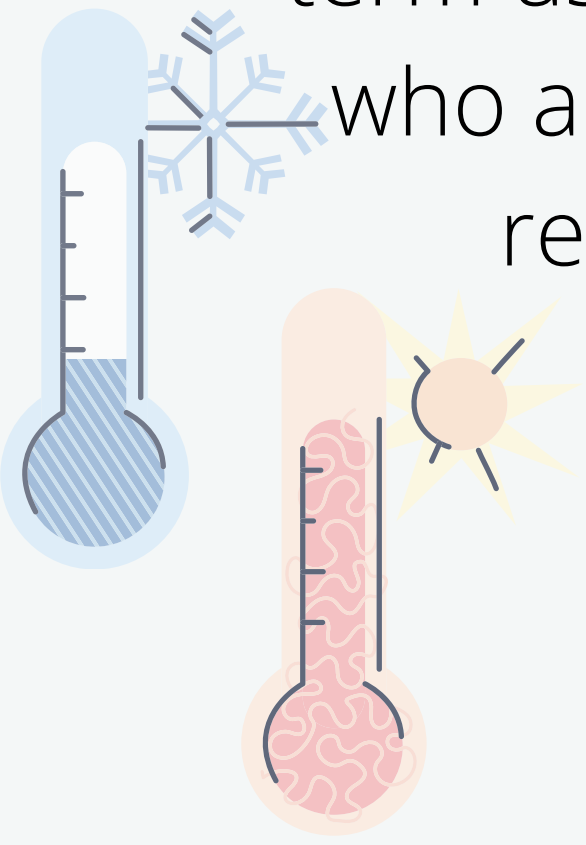
- glacial melts = unreliable water supply
- change in species and availability of traditional food sources
- safety when travelling on ice



Individuals, corporations, and nations who produce the most greenhouse gases are not equally affected by the resulting impacts.

climate refugee

term used to describe individuals who are forced to permanently relocate due to climate

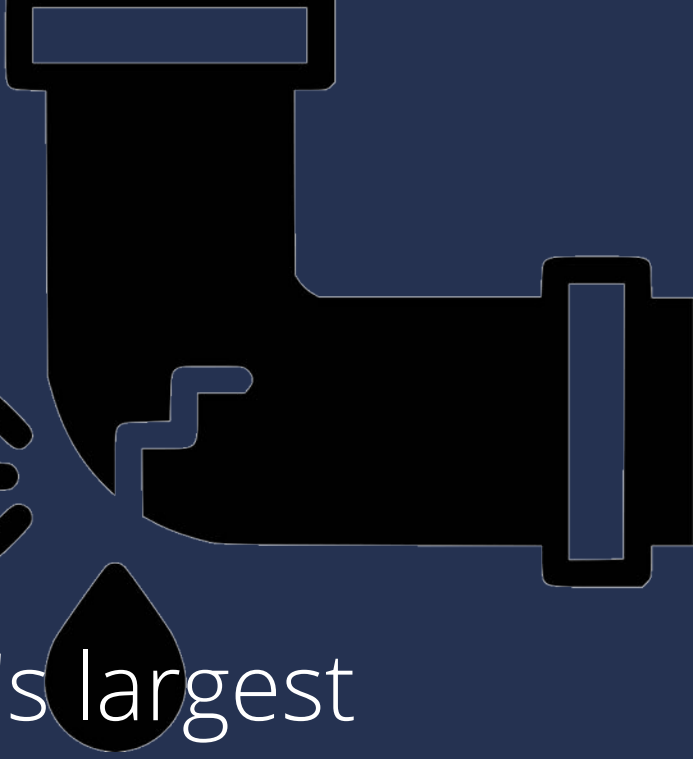


The film, Thule Tuvalu, follows a family from Thule; how they must adapt to the changing climate and what it means for their identity.

The disproportionate impacts felt by communities thousands of kilometers away is also what fuels climate science denial; it's hard to believe what you can't see



Alberta's oil sands



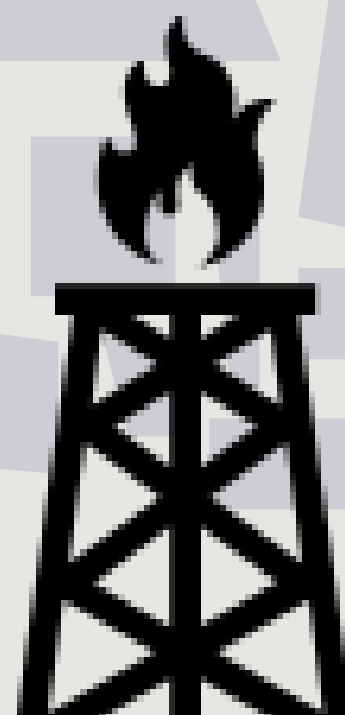
Syncrude oil sands just North of Fort McMurray is the world's largest industrial project. For the site to be constructed, much of the Boreal forest must be clearcutted to make way for the operation.

Destructive to the environment + communities: impacts caribou, bison, moose, fish, the water, the forest, ability to travel, and gather food from the land

Kinder Morgan's Trans Mountain pipeline put pressure on the Trudeau government to build the pipeline, even though there was strong opposition from Indigenous chiefs

Boreal deforestation, toxic tailings ponds, hazardous air emissions, vast use of surface + underground water, toxic seepage into the Athabasca River, elevated women's cancer rates downstream from the oil sands, Indigenous people shifting to non-traditional foods

TransCanada attempting to build the Coastal GasLink from Kitimat to Dawson Creek. It crosses through the Wet'suwet'en traditional territory



This is a continuous battle Indigenous people of Canada need to fight, as their authority, voices, and opinions are always silenced.

Territory owned by Indigenous peoples is being threatened by lethal projects that have the capability of killing wildlife and nature. It is a direct attack on land + Indigenous rights.



pulp and paper mill : Dryden, Ontario

- spilled mercury poisoning into river system
- Grassy Narrow First Nation, or the Asubpeeschoseewagong

First Nation affected in northwestern Ontario

- the river system that the Grassy Narrow community relies on for food and water has been poisoned for 50 years
- ~90% of community suffers from symptoms of mercury poisoning
- the factory dumped the toxic chemical into a river, poisoning the groundwater, the people, the fish

* mercury poisoning:

- ataxia (degenerative disease of the nervous system)
- numbness in the hands + feet
- general muscle weakness
- damage to hearing and speech
- +continued exposure = brain & kidney damage, early death

more negative effects.

- the community can no longer sustain itself
 - fish were food for the community + provided life to tourism and fishing industries; all receded
- the community's historical relationship with Canada included residential schools, the '**60s Scoop**, and relocation

a potential win

- December 2017: then-Indigenous Services Minister promised the community full payment by the federal government for the construction and operation of a treatment center in Grassy Narrows
 - +\$85 million to aid in land and water cleanup
- since that time, little has been done to keep those promises

'**60s Scoop**: during the 1960s, children were taken from communities and placed in foster homes/put up for adoption

Latinx communities



Keystone XL pipeline

Alberta → Texas

Refineries which tar sand oil would be brought down to are near **largely Latino communities**; an accident would disproportionately impact the Latinx communities

The refineries in Texas are located in Harris County, or, the **second largest Hispanic population in the US** (1.73 million)

The pipeline's contribution to climate change directly impacts the communities, as Latinos already live in coastal and drought-stricken areas of the US

About **half** of the **US' Latino population** lives in regions that **violate clean air rules**; they must be concerned about the health effects of pollution.

asthma alley (Mott Haven) South Bronx

FreshDirect
Warehouse

newspaper
printing press
for The Wall
Street Journal +
New York Post

FedEx
depot

waste
transfer
station

"Communities
of color are
zoned into
poorer
neighborhoods
that have
worse pollution
and less access
to clean water"

-Thanu
Yakupiyage

"Residents
need asthma
hospitalizations
at 5x the
national
average + 21x
higher than
other NYC
neighborhoods"

It was found
that Hiapanics
are exposed to
about 63% of
the pollution,
cause by their
counterpart

97% Black
and/or Latinx
neighborhood



farm workers : the double threat of wildfire smoke and COVID-19

The people who ensure we have food on our tables throughout these hard times are the same ones who are not protected by laws and exposed to intersectional harms.

Farmers in California have been working through raging forest fires; where they are pictured below thick clouds of dangerous smoke. All this, while within the setting of a global pandemic.

The workers in Salinas, Calif, responsible for strawberries, stopped for ONE day, when the smoke became absolutely unbearable.

The predominantly Latino farm workers are disproportionately impacted by the coronavirus; +70% of cases in Monterey County are among Latinos.



allyships



“

In a racist society, it is not enough to be non-racist, we must be anti-racist.

ANGELA DAVIS

Intersectional Environmentalist Pledge:

I will stand in solidarity with Black, Indigenous + POC communities and
The Planet

I will not ignore the intersections of environmentalism and social justice

I will use my privilege to advocate for black + brown lives in spaces
where this message is often silenced

I will proactively do the work to learn about the environmental and social
injustices Black, Indigenous + POC communities face without minimizing

I will respect the boundaries of BIPOC friends and activists and not
demand they perform emotional labor or do the work for me

I will share my learnings with other environmentalists and my community

I will amplify the messages of Black, Indigenous + POC activists and
environmental leaders

I will not remain silent during pivotal political and cultural moments that
impact BIPOC communities

©GreenGirlLeah

Environmentalists For Black Lives Matter
Environmentalists For Black Lives Matter
Environmentalists For Black Lives Matter
Environmentalists For Black Lives Matter
Environmentalists For Black Lives Matter
Environmentalists For Black Lives Matter
Environmentalists For Black Lives Matter



educate yourself on IE



support organizations led

by people of colour



share with community



follow activists of colour on

social media

@sophiekianni

@xiyebeara

@lainetew

@alexandriav2005

@imkevinjpatel

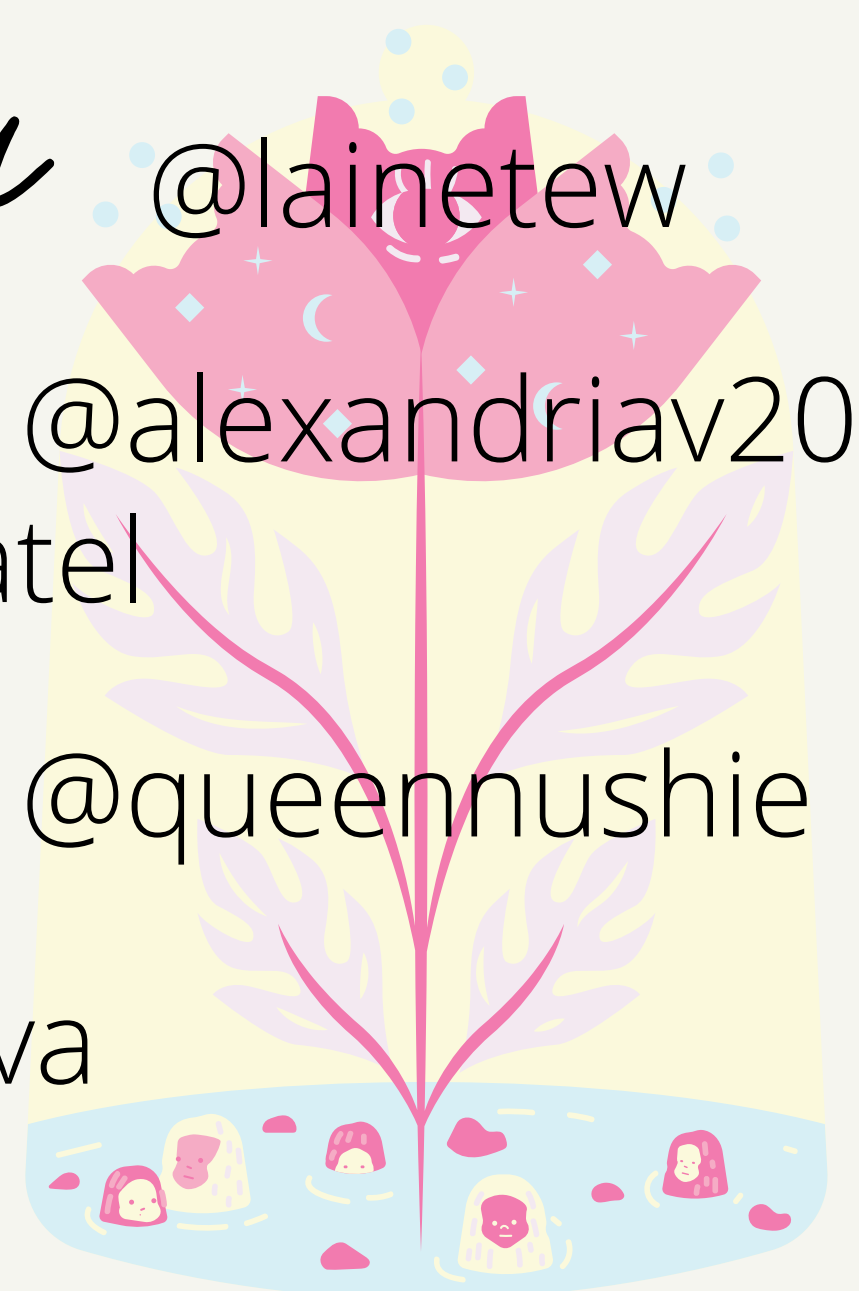
@greengirlleah

@queennushie

@mikaelaloach

@climatediva

@aditimayer



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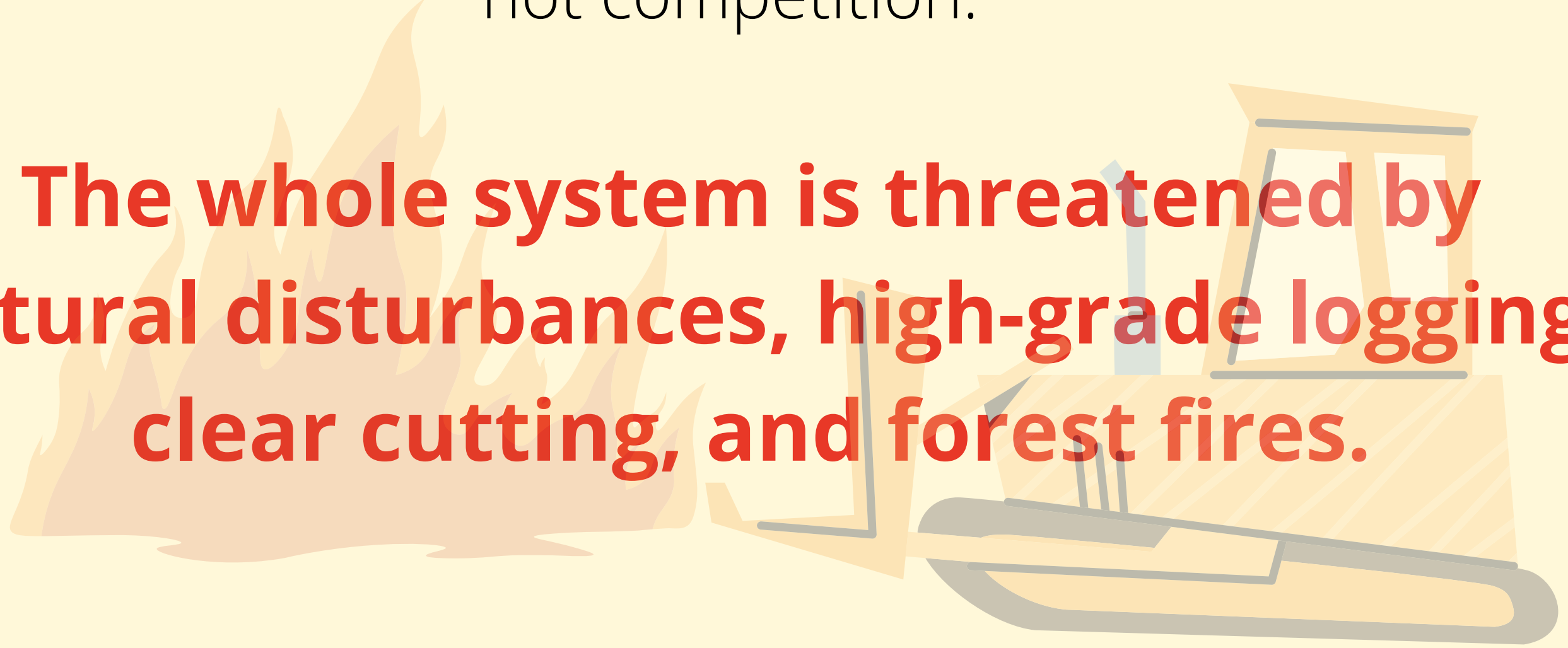
Discussion on findings...



The sharing of nutrients below ground between mycellium and plant life promotes coexistence, not competition.

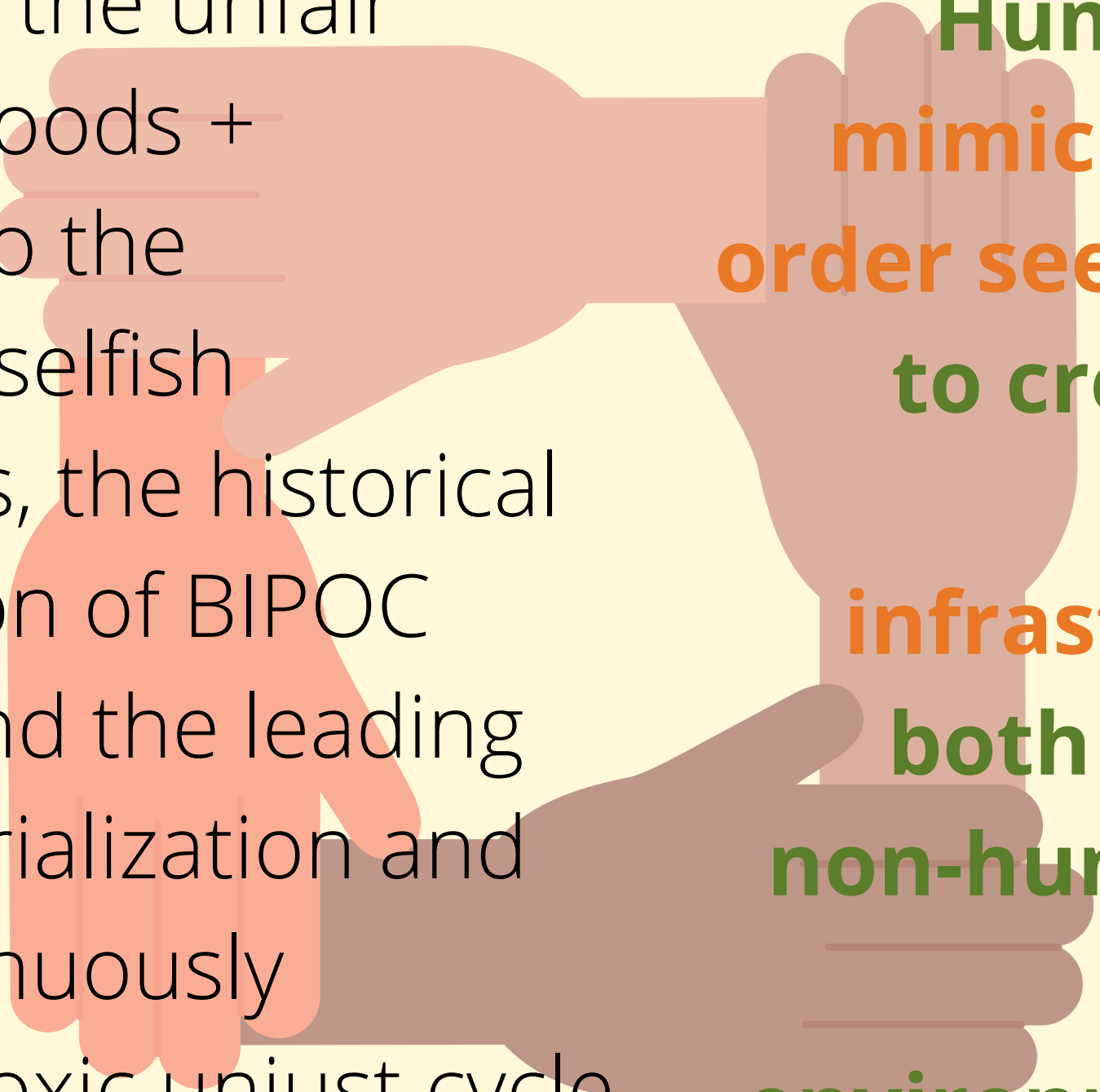


The whole system is threatened by natural disturbances, high-grade logging, clear cutting, and forest fires.



This is similar to the unfair distribution of goods + resources due to the prioritization of selfish economic needs, the historical racial segregation of BIPOC communities, and the leading forces of industrialization and capitalism continuously advancing this toxic unjust cycle

Humans should mimic the natural order seen in forests to create a more supportive infrastructure for both human and non-human species and natural environments alike



CHANGE

THE SYSTEM



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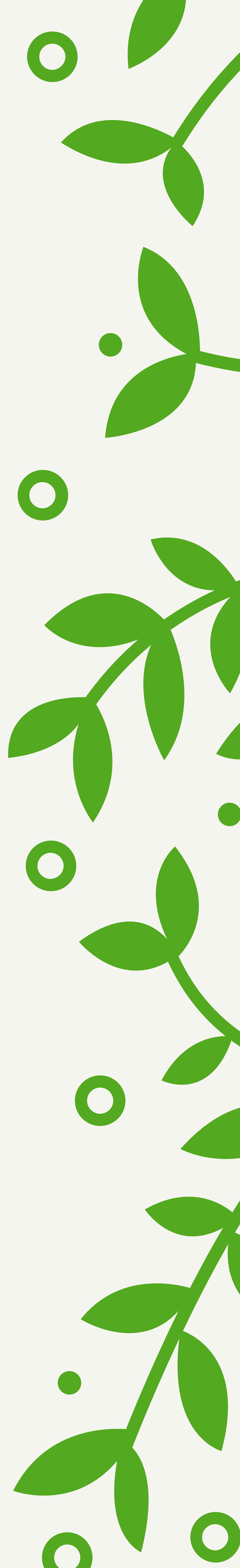
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