

Welcome to this week's presentation & conversation hosted by the **Canadian Association for the Club of Rome**, a Club dedicated to intelligent debate & action on global issues.

The views and opinions expressed in this presentation are those of the speaker & do not necessarily reflect the views or positions of CACOR.

CACOR Live

From Carbon to Cooperation: Building International Pathways for Just Transitions

Profile: Nadia Ahmad, Professor of Law at Barry U School of Law & Ph.D. candidate in Environmental Studies at Yale U, specializes in environmental law, climate justice, & emerging technologies. Her dissertation is on *The Emergence of Evacuation Science*. As co-founder of Mudder AI, a climate technology platform, she translates academic research into practical tools for emergency managers & communities. She is as an Affiliated Faculty Member at Harvard Law School's Institute for Global Law and Policy & is a Fellow at Rutgers Center for Security.

Summary: The climate crisis requires new decarbonized economic systems & comprehensive socio-ecological transformation. This talk covers "just transitions" in international environmental law, exploring how legal structures can create paths away from carbon dependence while mitigating injustices from rapid systemic change. Tensions between climate urgency & social equity need solutions that integrate rights, epistemic justice, & technological democratization. Sovereignty & international law need to deal with planetary boundaries & human rights, & AI-enabled climate intelligence & participatory governance can bring justice rather than technocratic exclusion.

CACOR acknowledges that we all benefit from sharing the traditional territories of local Indigenous peoples (First Nations, Métis, & Inuit in Canada) and their descendants.



Website: canadiancor.com

YouTube: [Canadian Association for the Club of Rome](https://www.youtube.com/c/CanadianAssociationfortheClubofRome)

2025 Oct 01 Zoom #263

[Donate to CACOR](#)



FROM CARBON TO COOPERATION: BUILDING INTERNATIONAL PATHWAYS FOR JUST TRANSITIONS

Nadia B. Ahmad, Professor of Law, Barry University; PhD Candidate, Yale School of the Environment
October 1, 2025
Canadian Association for the Club of Rome

FINDING OUR WHY...



Personal and Professional Intersection

As a mother and law professor, I bring urgency to climate change as a personal and generational issue.



Humanizing Climate Change

Climate projections are my children's world.



Privilege and Responsibility

How do we transform fast enough AND justly enough?



CENTRAL QUESTION

Urgency of Climate Action

Rapid reduction of global emissions is essential to avoid catastrophic climate outcomes within a decade.

Importance of Equity and Justice

Ensuring the climate transition is just prevents worsening social inequalities and respects community impacts.

Reconciling Speed and Justice

Innovative legal, technological, and participatory approaches aim to balance swift climate action with fairness.



THE TENSION

Urgency of Climate Action

We have about ten years to halve global emissions to prevent severe climate impacts.

Social Justice Challenges

Rapid climate transitions without equity risk marginalizing vulnerable communities.

Balancing Speed and Justice

Integrated strategies must prioritize both fast action and fairness to resolve tensions.

BLOCKED PATHWAYS



SOVEREIGNTY TRAP

State Power vs Global Responsibility

Sovereignty trap prioritizes national interests over collective environmental accountability, limiting global climate efforts.

Military Emissions Exclusion

Military emissions are excluded from the Paris Agreement, undermining accurate accounting of global emissions.

Barriers to Climate Action

National legal privileges create significant barriers to effective climate policies and planetary survival.

Call for Accountability Reforms

Reforms are needed to hold all sectors, including military, accountable to ensure a just transition.



ENERGY CHARTER TREATY

Legal Challenges to Climate Policies

The ECT enables corporations to sue governments over climate actions threatening their investments, blocking clean energy transitions.

Impact on Fossil Fuel Phase-Out

The treaty has been used to challenge coal and fossil fuel phase-out efforts, creating financial liabilities for countries.

European Withdrawal and Reform

Several European nations are withdrawing from the ECT, seeking legal reforms to prioritize environmental sustainability over corporate interests.

THE INVESTMENT FRAMEWORK OF THE ENERGY CHARTER TREATY

Formed at the heels of the Soviet collapse, the ECT sought to establish a cooperative framework for energy investment, exploration, production, and transport

ENERGY CHARTER TREATY

“The One Treaty to Rule Them All”

Minimizes effective investor-host country dispute resolution

Limits climate action

Locks countries into climate wrecking fossil fuels

Attracted little attention and remains largely unknown



SO WHAT?

The transnational energy law regimes have proliferated in parallel to climate change adaptation measures.

While international treaties and agreements have formed the basis of energy law regimes, the growth of transnational intergovernmental organizations offers an additional dynamic beyond state actors in formation of energy governance systems

The rise of green energy finance and renewable energy incentives for building better transnational energy systems and networks by understanding the functioning and finance mechanism of IRENA and the Secretariat of the Energy Charter Treaty



OPEC CONCERNS

Founded in 1960 with 14 Member States

Cost parity of renewables tipping to outperforming the markets.

Climate change

Food insecurity

Labor disruptions

Terrorism

Natural disasters

Peak oil time horizon



ENVIRONMENTAL LAW AS SEGREGATION

Systemic Environmental Segregation

Environmental laws have historically placed pollution in marginalized communities, causing disproportionate harm to Black and Hispanic populations.

Compounding Social Injustices

Environmental hazards are intensified by social issues like over-policing and poor healthcare access in vulnerable neighborhoods.

Call for Legal Reform

Reforming environmental law is essential to equitably distribute protections and prioritize frontline communities in climate policies.

OPENING PATHWAYS

THREE PRINCIPLES

Rights-Based Approaches

Ensures climate policies protect fundamental human rights including life, health, and housing.

Epistemic Justice

Advocates inclusion of Indigenous knowledge and challenges dominance of Western scientific paradigms.

Participatory Governance

Involves communities in decision-making to reflect diverse perspectives and needs.

HUMAN RIGHTS AND EPISTEMIC JUSTICE

Climate Change and Human Rights

Climate change threatens essential human rights like access to water, food, housing, and governance participation.

Loss and Damage Fund Accountability

The Loss and Damage Fund is a mechanism for accountability recognizing the Global South as rights-holders, not victims.

Epistemic Justice and Inclusion

Epistemic justice calls for valuing Indigenous knowledge and Global South scholarship in climate discourse.

Building Resilient and Equitable Systems

Integrating human rights and epistemic justice helps create more resilient, equitable systems for climate futures.



PARTICIPATION AND LOCAL MODELS

Community-Led Microgrid Projects

Zimbabwe's microgrid projects exemplify community planning and local training in energy solutions for just transitions.

Just Energy Transition Partnerships

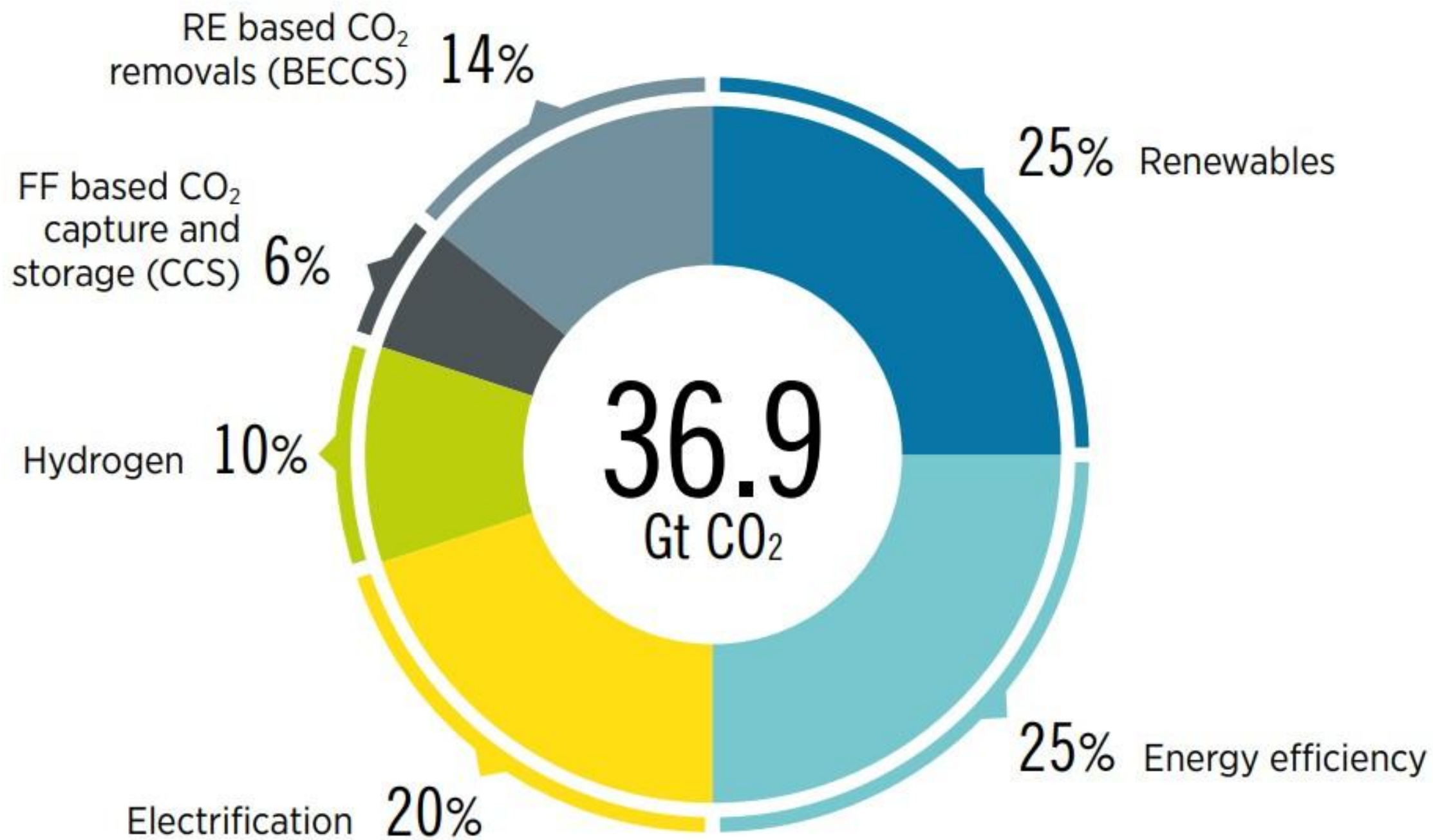
JETPs in South Africa and Indonesia mobilize climate finance to support equitable energy transition initiatives.

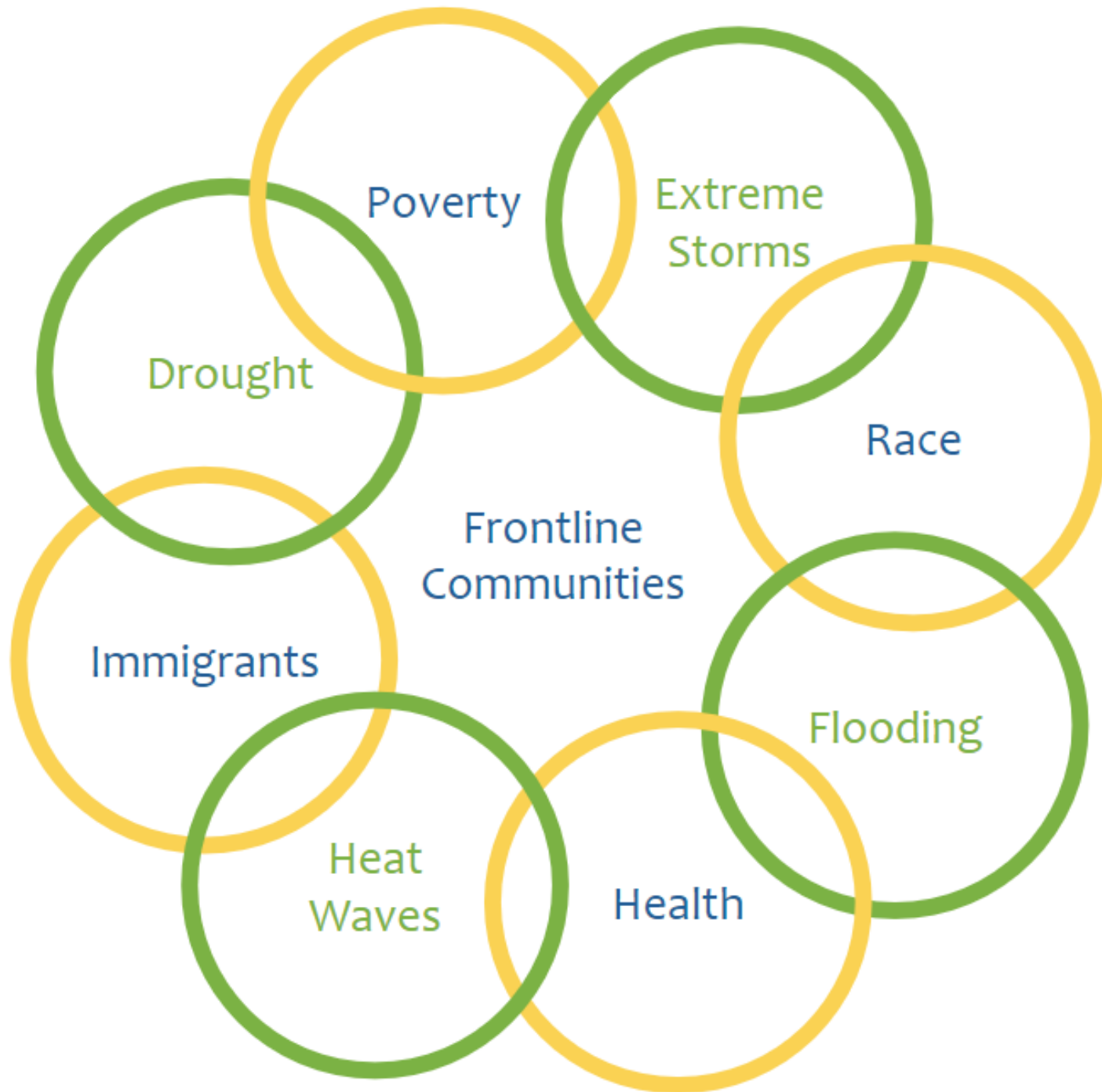
Democratic Climate Governance

Inclusive participation in climate governance leads to more effective and equitable climate policy outcomes.

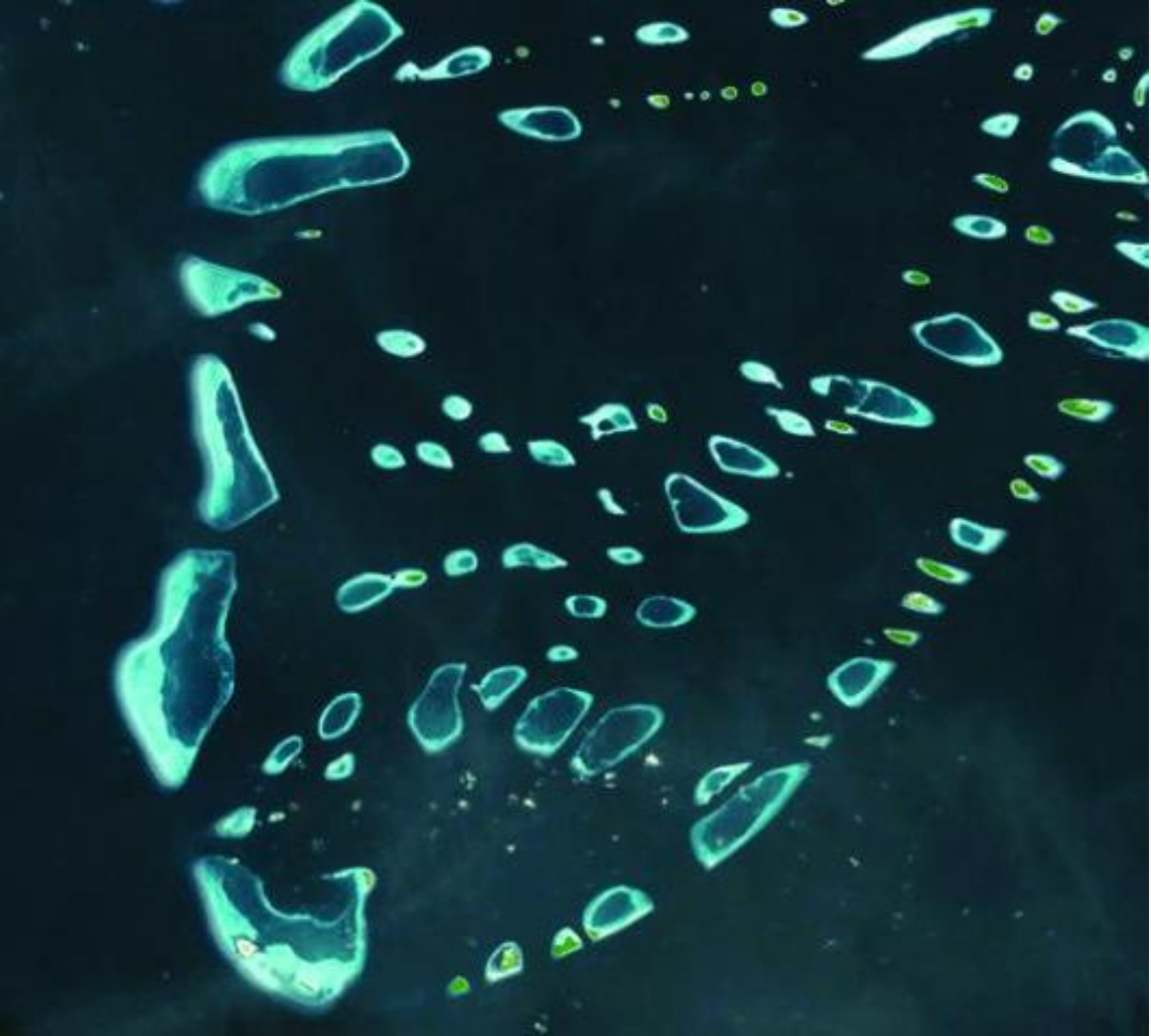
Empowerment through Collaboration

Valuing local expertise and fostering collaboration transforms climate policy into a tool for empowerment and justice.





CLIMATE EQUITY



SMALL ISLAND DEVELOPING STATES

SYSTEMS DYNAMICS



IRENA as an intergovernmental organization offers a means to leverage capital for more resilient energy systems



Systems dynamics offers the theoretical framework for accelerating the targets of the Paris Agreement as well as overcoming hindrances of the Energy Charter Treaty

THE CAPACITY BUILDING FOR FINANCE MECHANISMS THROUGH IRENA

No coincidence that the preparatory meetings for IRENA occurred following the Global Financial Crisis of 2008, which precipitated the Arab Spring.



MOVING THE PARIS AGREEMENT BEYOND THE STATUS QUO

Investment agreements have been designed primarily to protect the status quo.

Compliance with the objectives of the Paris Agreement will require radical change: a future in which governments have met the collective goal of keeping below the 2°C guardrail is a future without fossil fuels

Key elements of the Paris Agreement include notably: providing and establishing progressively ambitious, and the obligation to elaborate and communicate Nationally Determined Contributions in five-year increments

U.S. leadership on climate change adaptation was crucial for the success of the Paris Agreement.

MOVING THE PARIS AGREEMENT BEYOND THE STATUS QUO

Law professor Uma Outka observes, “This context of federal policy reversal creates an environment in which companies’ counterposing renewable energy goals stand out.”



In November 2016, the United States issued a document titled United States Mid-Century Strategy for Deep Decarbonization with the objective to build a low-emission economic system to reduce climate change.



Source: Public Twitter profiles

IRENA STATUTE (2009)



Adoption of renewables with view of sustainable development



View of renewables as offering energy security and price stability



Reduction in greenhouse gas emissions



Decentralization of energy access for poor, rural and developing areas



Concern of negative implications of fossil fuels and the inefficient use of traditional biomass on health



Energy efficiency for global energy needs



International organization for cooperation and collaboration

IRENA HQ

The UAE's highest Estidama* design and construction rating to date

IRENA HQ has won:

Sustainable Construction Project of the Year, BGreen Awards 2014

Green Project of the Year, Big Project Awards 2014

Green Building of the Year - Commercial, EGBC Awards 2015

The 1,000m² solar PV rooftop system produces **305,000 kWh** of electricity per year

Solar water heater system produces heat equivalent to **27,850 kWh** of electricity per year

75% of the heat energy in the exhaust air is recovered by the air conditioning system

Up to **95%** of energy generated from lowering elevators is harnessed and reused throughout the building

Requires **50%** less water than typical buildings in Abu Dhabi

75% of the building's hot water demand is supplied by solar water heaters

Uses **64%** less energy than typical buildings in Abu Dhabi

Uses **42%** less energy than global energy-efficiency standards

Features charging stations for **26** electric vehicles

IRENA - An Integral Part of Masdar City's Ecosystem

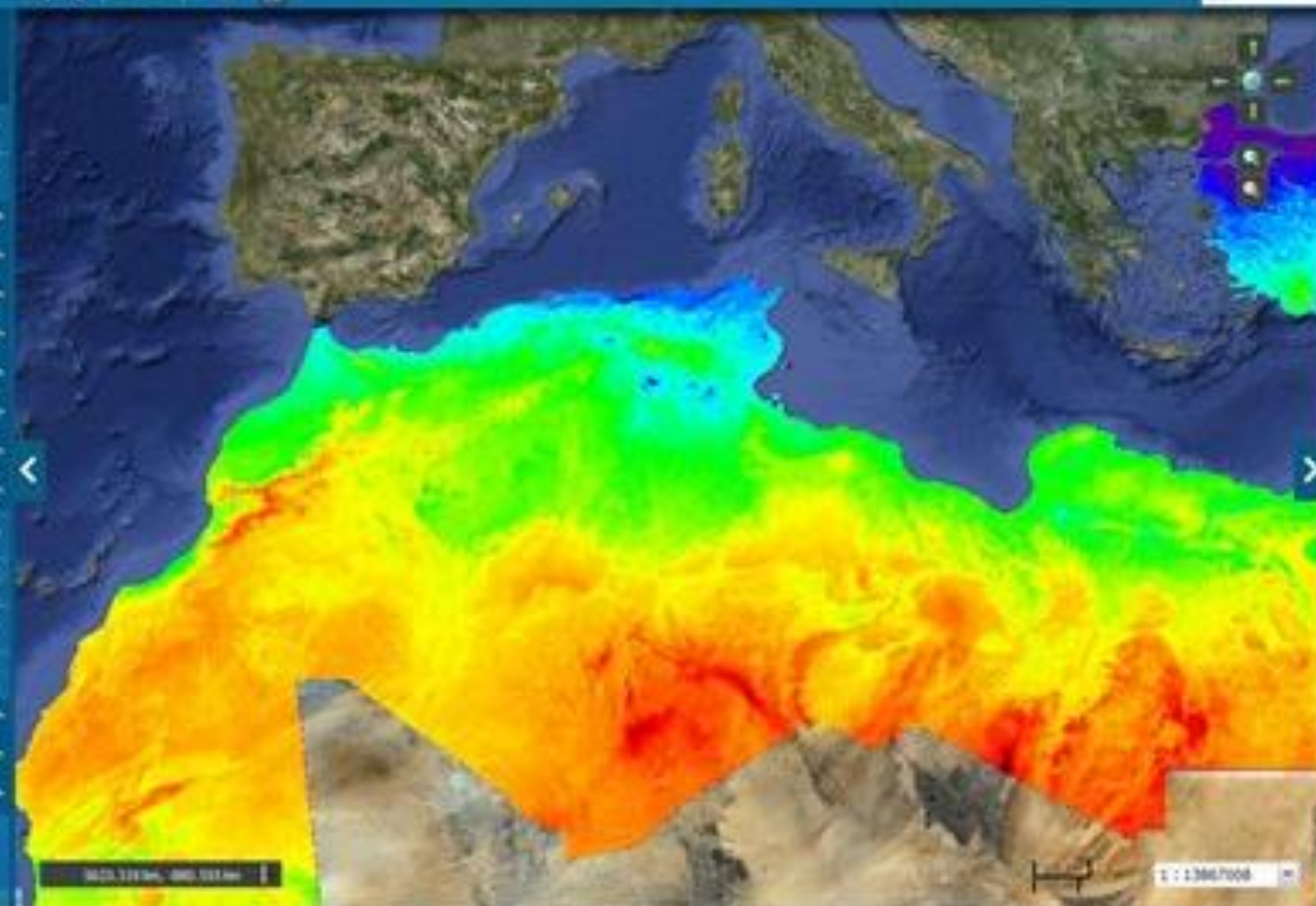


*Estidama is a rating building standard launched by Abu Dhabi Urban Planning Council to assess the sustainability standards of a building

Map Global Solar and Wind Atlas - default map



- Concentrated solar (CSP)
- Solar photovoltaics (PV)
 - Africa Solar Atlas 1 (sahel zone) by M...
 - Europe Solar Atlas 2 by MINEX Pers...
 - Mediterranean area 1 km by Sol...
 - West Africa plan by EXOXX
 - EMEA & Qatar plan by Masdar Inst...
 - Multiple Countries plan by NORX a...
 - Multiple Countries plan by SCNY Atlas
 - Australia by Australia Climate Serv...
- Wind energy
- Protected areas
- Infrastructure
- Base maps
 - Cities of the World by ESRI
 - Google Satellite Map
 - World countries by Google maps



Tools & Services

Legend Tools My process

Mediterranean area 1 km by Selected Atlas project

GHI
(kWh/m²/y)

2574
2444
2314
2184
2054
1923
1793
1663
1533
1403

Google Satellite Map

World countries by Google maps

Paris France



PARIS AGREEMENT (COP21)

RESPECTABILITY POLITICS

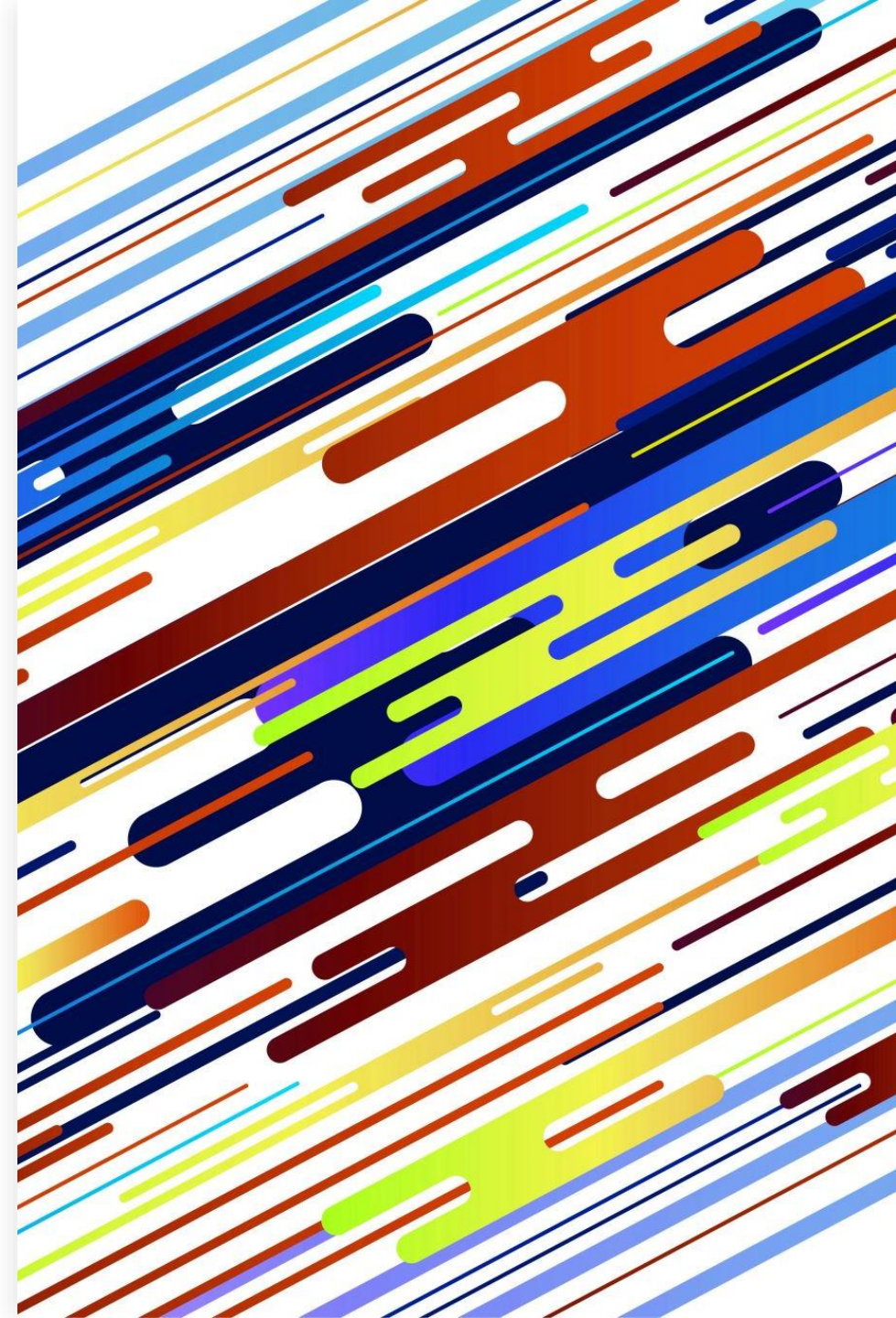




PHOTO: GREG GIBSON, AP

Flint water crisis victims will receive \$641 million. Just don't call it 'justice'

Last Updated: May 24, 2021 at 1:22 p.m. ET

First Published: May 19, 2021 at 11:02 a.m. ET

By [Andrea Riquier](#)

Settlement set to leave a battered city with an 'upside down' budget

0



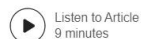
Cleophus Mooney looks at cases of water in his home in Flint, Mich. AFP/Getty Images



Referenced Symbols

GM +1.09% ▲

Sponsored by Ameritrade



Flint

More than half of Flint's residents registered for part of water crisis settlement

Updated May 26, 2021; Posted May 26, 2021



Flint residents commemorate 7 years since start of water crisis



125 shares

By [Ron Fonger](#) | rfonger1@mlive.com



Destruction of Sacred Burial Grounds Prompts Federal Judge to Protect Some Tribal Sites from Dakota Access Pipeline

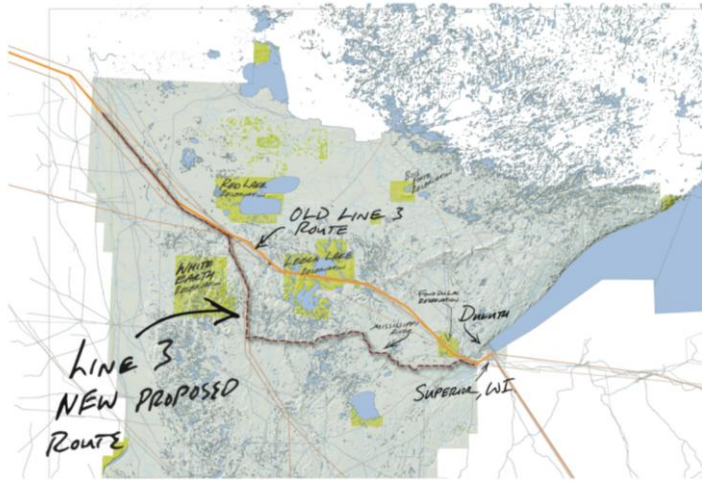


By **Larry Buhl** on Sep 6, 2016 @ 18:19

8 min read

Series: **DAKOTA ACCESS PIPELINE BATTLE**





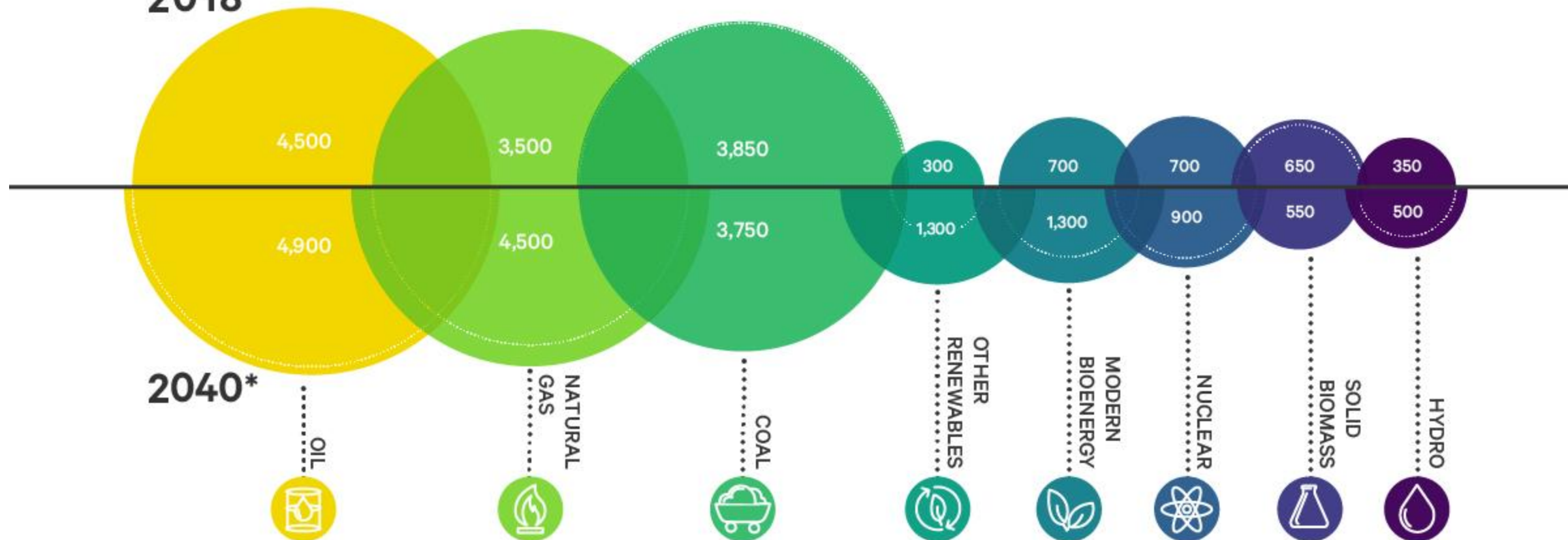
Enbridge Energy's proposed Line 3 pipeline replacement takes a winding path south of the Leech Lake Reservation to the oil depot in Superior, Wis. ■ William Lager | MPR News Graphic





Changes in the Global Energy Mix

2018



*Based on Stated Policies Scenario

IRENA TO COP 28



SUNRISE MOVEMENT



CLIMATE DEFIANCE



RIGHT TO A HEALTHY ENVIRONMENT AT THE UNGA



POLITICS OF CHANGE

LAW PRACTICE, AMICUS BRIEFS, AND PROFESSIONAL ORGANIZING



Gawker, Hulk Hogan Attorneys Discuss Case at Law Conference

ERS SUE
re force law-
andalizing

BUDGET
detail all
track to rack
sts. **A6**

MED
th, has been

I FLA.
as continued
ip in Fort

KILLING
suspected of



by Celia Ampel
campel@alm.com

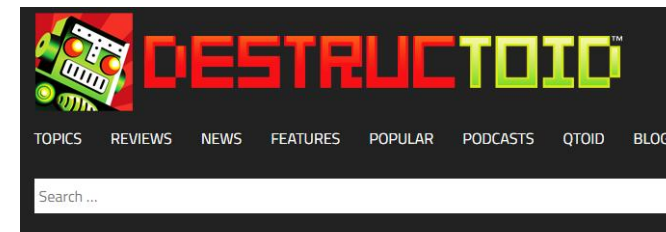
Gawker Media Group and Hulk Hogan's temporary litigation cease-fire didn't stop lawyers for the two parties from duking it out at a Friday media law conference in Orlando.

Trial counsel for both sides debated the legal precedent that might be set by a \$140 million Pinellas Circuit Court verdict against Gawker for publishing a video of Hogan, whose real name is Terry Bollea, having sex with a friend's wife.

Bollea's attorney, Shane Vogt of Bajo Cuva Cohen & Turkel in Tampa, said the case would be an important victory for the right to privacy in an

SCOTT KEELER/ASSOCIATED PRESS

Terry Bollea's lawyers argued to a New York bankruptcy judge's request to name the



EA Sports sued by 6,000 retired NFL players

Posted 3 August 2010 by **James Stephanie Sterling**



Chemical warfare: the horrific birth defects linked to tomato pesticides

Barry Estabrook | 1st September 2011



Carlos Candelario was born without arms and legs. His mother had been exposed to a cocktail of toxic pesticides whilst harvesting tomatoes

The 'Immokalee babies' were born with severe deformities after their mothers were each exposed to pesticides whilst harvesting tomatoes. Barry Estabrook reports on the case that shocked the US

ENVIRONMENTAL ADVOCACY



FOR IMMEDIATE RELEASE:
May 4, 2011, 11:00 a.m.

Contact: Joel Finkelstein, 202-789-7762 | joel@fenton.com
Lindsay Moore, 202-789-7753 | lmoore@fenton.com

Youth Sue The Government To Preserve The Future And Halt Climate Change

Lawsuits and administrative actions filed against the federal government and all 50 States to ensure reduction of carbon emissions and prevent climate catastrophe

“These unprecedented cases are being prosecuted by some of the most prominent trial attorneys in the country.” – Pete McCloskey, former U.S. Republican Congressman and Purple Heart Winner

San Francisco, CA — Youth filed legal and administrative actions today against all 50 states and the federal government to force action on climate change. “This is something new – no climate litigation in the past has ever gone back to the first principal that the government must protect the public trust,” said former Republican congressman Pete McCloskey. “The large body of litigation brought under environmental statutes is too narrow for the crisis at hand. Science, not politics, defines the fiduciary obligation that trustees must fulfill – it’s the most common sense, fundamental legal footing for the protection of our planet.”

The team of top legal experts, including McCloskey’s firm Cotchett, Pitre & McCarthy, has been assembled by Our Children’s Trust to represent the youth, who alongside their parents, are taking legal action out of fear of hitting a tipping point wherein global climate change cannot be stopped.

“Young people will be affected most by climate change and by our government’s inaction. We can’t vote, and we don’t have money to compete with lobbyists,” said Alec Loorz, the 16-year-old founder of iMatter, who has been tirelessly working on the issue of climate change and global sustainability for the past three years. “We do, however, have the moral authority and the legal right to insist that our future be protected.”

The legal actions rely on the long established legal principle of the Public Trust Doctrine that requires the government to protect and maintain certain shared resources fundamental for human health and survival.

“The public trust law in our country and around the world says that common resources like water and air are held in trust by the government for the people and for future generations,” said Julia Olson, Our Children’s Trust executive director. “Lawyers around the nation are providing legal assistance to young people to help them protect their future, since the government has abdicated that responsibility.”

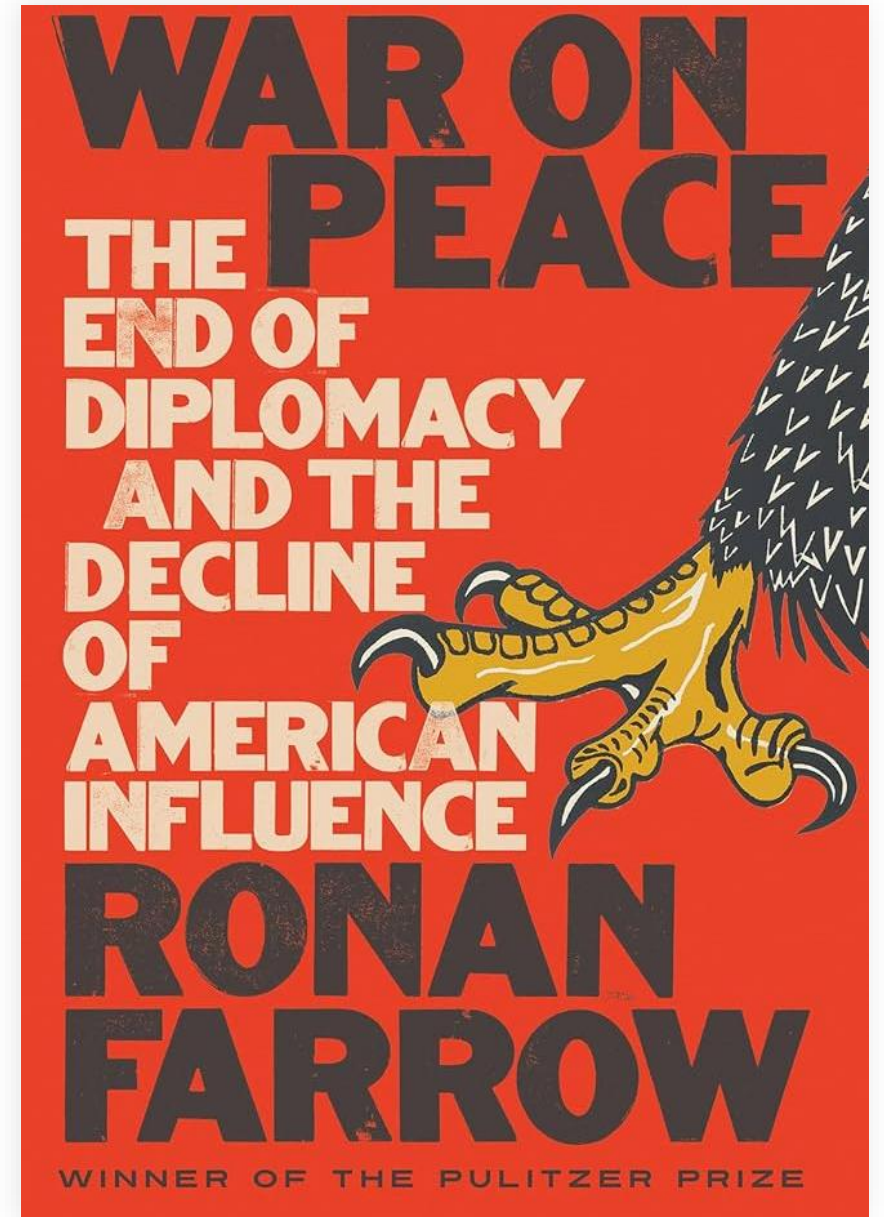
Steven Donziger @SDonziger · Jun 21, 2023
BREAKING: Asking everyone to sign the petition below urging the United Nations to demand the Biden Administration return my passport and restore my full freedom – Including my right to work and right to international travel. 🇺🇸
actionnetwork.org/petitions/unit...



Steven Donziger @SDonziger
Below is the text of the letter that 16 prominent lawyers – including Indigenous leader @NSeGoviaEsq and civil rights legend Marty Garbus – recently sent to the @UN on my behalf demanding action to restore my human rights: [1-4055-960f-d75f8542cc3d.usrfiles.com/ugd/8441cf_fc3...](https://d75f8542cc3d.usrfiles.com/ugd/8441cf_fc3...)



2:18 PM · Jun 21, 2023 · 7,960 Views





CONVERGING PATHWAYS



INTEGRATION

Convergence of Approaches

The thesis emphasizes combining rights-based, epistemic justice, participatory governance, and technology for effective transitions.

Equitable Climate Action

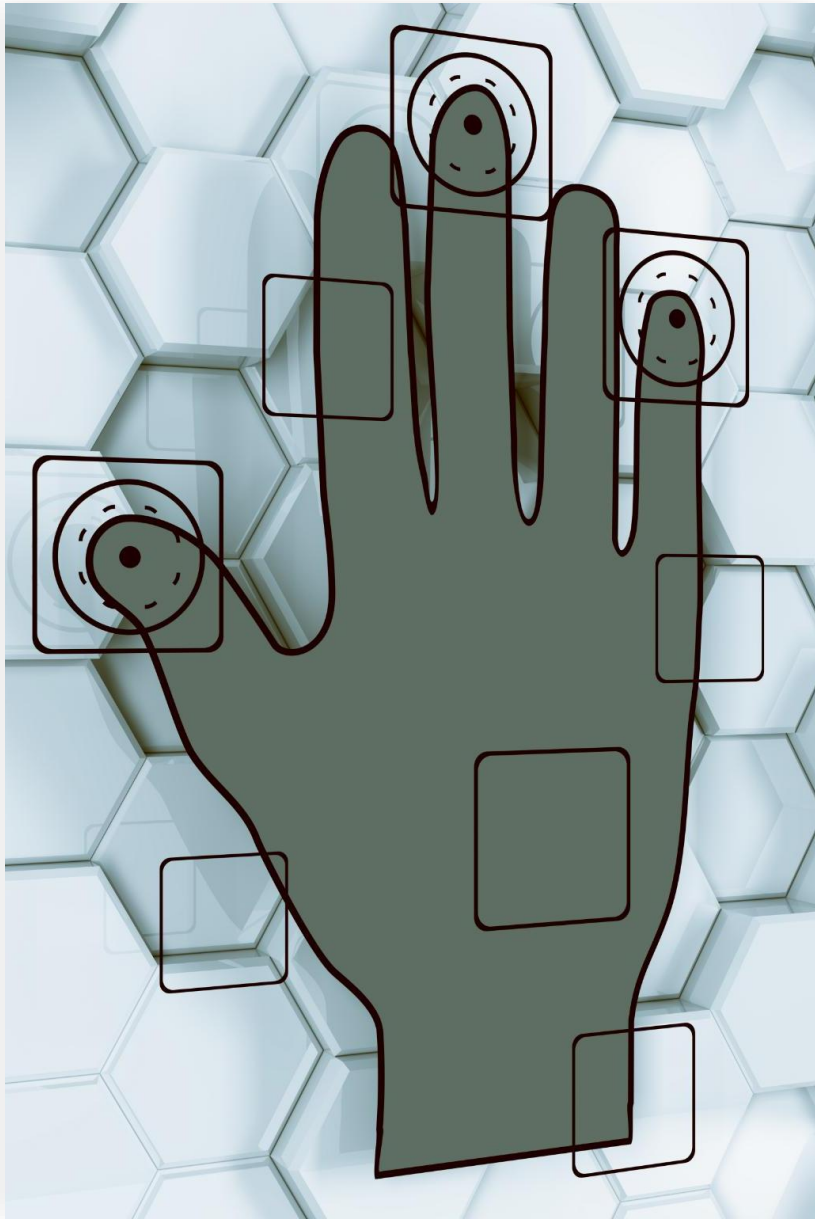
Integration ensures rapid and fair climate solutions grounded in ethics and community needs.

Systemic Transformation Blueprint

The thesis provides a roadmap for harmonizing diverse strategies to tackle environmental and social issues.

Interdisciplinary Collaboration

Calls for cooperation across fields and holistic policies to achieve sustainable and just outcomes.



AI AND GOVERNANCE

AI-Enabled Microgrids

AI-powered microgrids expand electricity access in underserved regions, improving energy equity and sustainability.

Governance and Equity Concerns

AI governance must address who controls algorithms and prevent reinforcement of existing inequalities.

People's AI Concept

People's AI promotes open-source, explainable, and community-led AI to democratize power and decision-making.

Justice-Aligned AI Development

Aligning AI with justice principles enables inclusive, sustainable transitions harnessing AI's full potential.



U.S. INFLATION REDUCTION ACT

Investment in Clean Energy

The IRA allocates \$370 billion to clean energy initiatives, aiming to reduce emissions and promote sustainability nationwide.

Justice40 Program

Justice40 ensures 40% of IRA benefits reach marginalized communities through rights commitments and participatory mechanisms.

Environmental Justice Actions

Actions include cleaning Superfund sites, replacing lead pipes, weatherizing homes, and creating union jobs in fossil fuel communities.

Oversight and Just Transition

The Environmental Justice Advisory Council oversees implementation, ensuring affected populations have a voice and supporting just transition principles.

CONCLUSION AND
CALL TO ACTION

RESOLVING THE TENSION

Transforming Legal Structures

Updating legal frameworks facilitates faster and fairer climate action by integrating justice into policy processes.

Centering Frontline Expertise

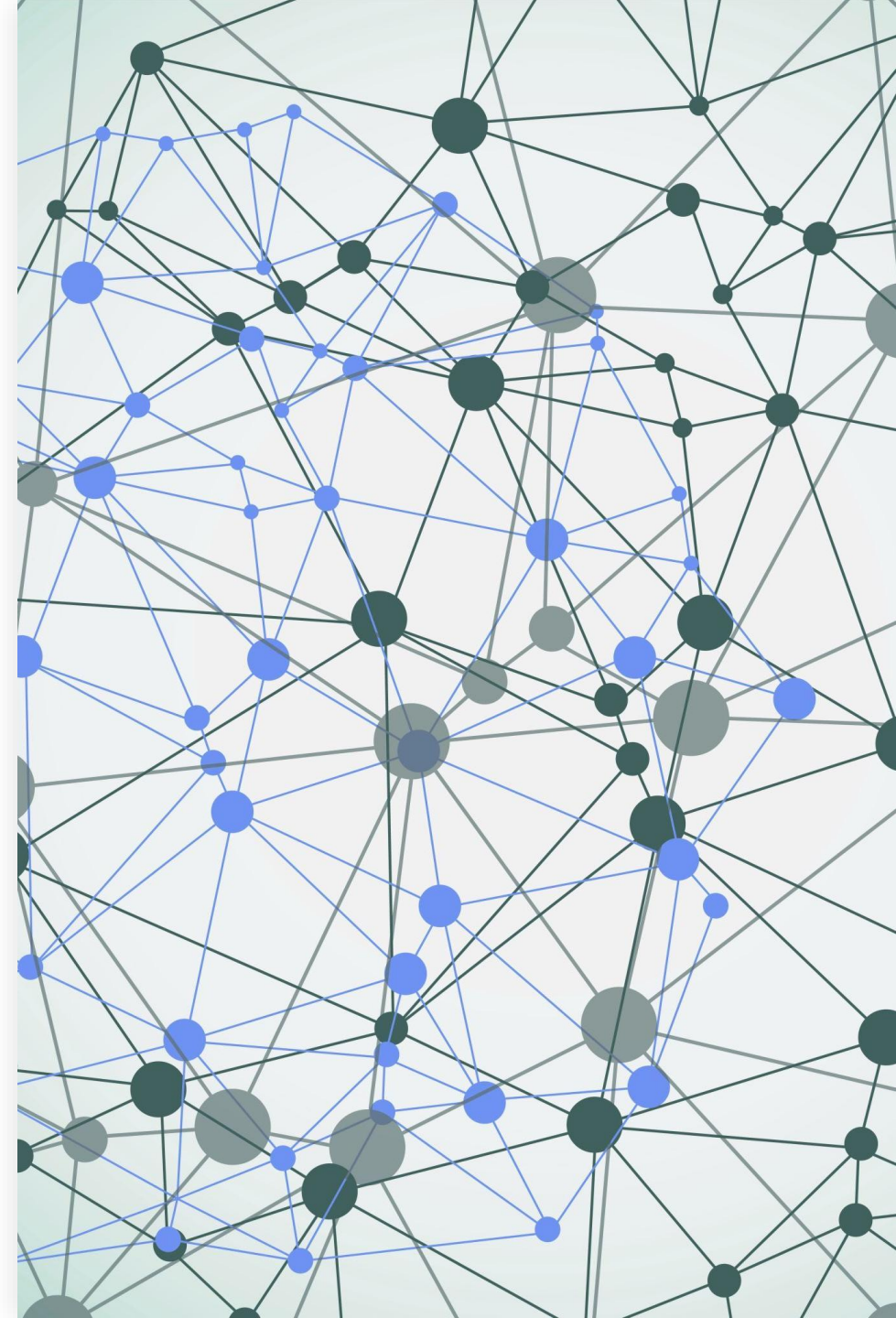
Involving frontline communities ensures policies are inclusive, equitable, and grounded in lived experiences.

Democratic Tech Governance

Implementing democratic oversight of technology supports just and accountable climate solutions.

Holistic Systemic Change

Collaborative approaches addressing legal, social, and technological aspects enable just and rapid climate transitions.

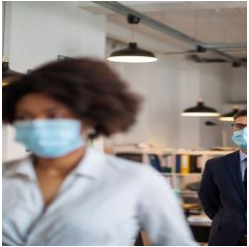


MOBILIZATION



Sustainable Future Vision

Envisions secure Pacific islands, community solar jobs, thriving green manufacturing, and balanced international law.



Lessons from COVID-19

Crisis recognition can mobilize resources but may also deepen social and economic inequalities.



Call to Collective Action

Invites policymakers, researchers, and educators to unite for inclusive, transformative justice and cooperation.