

A satellite image of Earth showing swirling cloud patterns over the ocean. Overlaid on the image are several concentric red circles, centered on the horizon, creating a target-like effect.

HANDS OFF

MOTHER EARTH!

**MANIFESTO AGAINST GEOENGINEERING
OCTOBER 2018**

Hands Off Mother Earth!

We, civil society organizations, popular movements, Indigenous Peoples, peasant organizations, academics, intellectuals, writers, workers, artists and other concerned citizens from around the world, oppose geoengineering as a dangerous, unnecessary and unjust proposal to tackle climate change. Geoengineering refers to large-scale technological interventions in the Earth's oceans, soils and atmosphere with the aim of weakening some of the symptoms of climate change.

Geoengineering perpetuates the false belief that today's unjust, ecologically- and socially-devastating industrial model of production and consumption cannot be changed and that we therefore need techno-fixes to tame its effects. However, the shifts and transformations we really need to face the climate crisis are fundamentally economic, political, social and cultural.

*// Geoengineering says consumption
cannot be changed and that we
therefore need techno-fixes to tame
its effects, but real solutions are
economic, political and cultural. //*

Mother Earth is our common home and its integrity must not be violated by geoengineering experimentation and deployment.

We are committed to protecting Mother Earth and defending our rights, territories and peoples against anyone attempting to take control of the global thermostat or the vital natural cycles of planetary functions and ecosystems.

Healthy ecosystems and cultural and biological diversity are crucial to the well-being of all people, societies and economies. Geoengineering, whether on land, in the oceans or in the atmosphere, puts ecosystems, biodiversity and human communities at risk of potentially devastating impacts and side effects.

We reject any further entrenchment of fossil fuel economies. We reject geoengineering as an attempt to uphold a failed status quo and divert attention from emissions reductions and the real solutions to the climate crisis.

Carbon Dioxide Removal (CDR) geoengineering projects, including large scale monoculture tree and biomass plantations have severe negative impacts on land, water, biodiversity, food security and traditional livelihoods. Carbon Capture and Storage (CCS) aim to serve

WHAT IS GEOENGINEERING?

Geoengineering refers to a set of proposed technologies to deliberately intervene in and alter Earth systems on a large – i.e. planetary – scale. There are two basic directions such interventions can take: The first is a suite of technologies that aim to reduce the amount of incoming sunlight to artificially cool the climate. These are so-called Solar Radiation Management (SRM) approaches that could consist of shooting aerosols into the stratosphere to mimic the effect of a volcanic eruption or brighten clouds and/or ocean surfaces to make them more reflective. The second category of Earth system interventions falls under the umbrella of carbon dioxide removal (CDR) or greenhouse gas removal (GGR) and aims to suck CO₂ from the atmosphere at a large-scale and store it underground, in the oceans, or in monoculture tree plantations. Overall, geoengineering may comprise interventions on land, oceans, or in the atmosphere that come with large-scale risk and adverse impacts for human communities, ecosystems and natural processes, and international peace and security.

and perpetuate the fossil fuel industry. Additionally, Bioenergy with Carbon Capture and Storage (BECCS) would hugely amplify the impacts of plantations, disputing land needed for food production, threatening food security and biodiversity. Other carbon dioxide removal techniques, such as ocean fertilization would disrupt the marine food web and create oxygen deprived areas in the oceans.

Geoengineering technologies may disrupt local and regional weather patterns and further imbalance the climate, with potentially catastrophic effects for some regions, including on water availability and food production. The adverse impacts and side effects could cause more regional and international conflicts.

// Solar Radiation Management in particular may depend on military infrastructure and could create a new geopolitical imbalance of winners and losers. //

Geoengineering threatens global peace and security. Some technologies that aim to manipulate climate and weather originated in the military and have a significant potential to be weaponized. Deploying Solar Radiation Management in particular may depend on military infrastructure and could create a new geopolitical imbalance of winners and losers in the race to control the Earth's thermostat.

We stand united to oppose field experiments and deployment of such technologies and call upon organizations and concerned citizens to join this campaign.

Because of the high risks that geoengineering poses to biodiversity, the environment and livelihoods, including to peasant communities and Indigenous Peoples territories, we call for:

- A ban on geoengineering field experiments and deployment
- A United Nations multilateral governance system that is global, transparent, participatory and accountable to uphold the ban. The Convention on Biological Diversity's moratorium on geoengineering and the London Protocol ban on ocean fertilization are starting points
- A stop to all planned outdoor geoengineering experiments, including:

SCoPEx, the Stratospheric Aerosol Injection experiment by the Harvard Solar Geoengineering Program, planned to be carried out in Arizona near the U.S.- Mexico Border in 2018;

The Marine Cloud Brightening Project experiment planned for Monterey Bay, California;

The Ice911 project, which aims to disseminate glass microbeads over ice and sea in Alaska; and

The Oceanos Ocean Fertilization projects in Chile, Perú and Canada

- A stop to all large-scale projects and funding for projects that aim to technologically capture carbon and "sequester" it in geological formations and/or the oceans, and/or use it for enhanced oil recovery and/or industrial applications, including Carbon Capture and Storage (CCS); Bioenergy with CCS (BECCS) and Direct Air Capture (DAC). We reject CCS in all forms including from gas processing, coal plants, bioenergy or industrial processes including fracking. CCS and Carbon Capture Use and Storage (CCUS) projects such as PetraNova in Texas, Boundary Dam in Saskatchewan, Decatur in Illinois, and DRAX in the UK only perpetuate the fossil fuel industry

- A stop to all large scale monoculture plantations
- A stop to any public funding for geoengineering projects
- Recognition of the inherent rights of Indigenous Peoples, their livelihoods and cosmovisions, including the right of Self Determination to defend their communities, ecosystems and all life from geoengineering technologies and practices that violate the natural laws, creative principles and the Territorial Integrity of Mother Earth and Father Sky
- Respect and effective guarantees for the right of Indigenous Peoples and local communities to free, prior and informed consent for any geoengineering experiment or project that may impact their territories or human rights

// The lands of Indigenous peoples and peasants are particularly vulnerable to being grabbed and exploited for geoengineering experiments and deployment. //

- Respect for peasant rights, lands and territories, acknowledging that their livelihoods, including Indigenous Peoples' communities, forest dwellers, artisanal fishers and pastoralists, are a vital source of food for most of the world's population; pave the way for food sovereignty; contribute to mitigating greenhouse gas emissions; and regenerate soils and ecosystems. Their lands are particularly vulnerable to being grabbed and exploited for geoengineering experiments and deployment, and their agriculture is threatened by the side effects.

- Support for and strengthening of meaningful investigations into just, sustainable and transformative pathways to limit global warming to not exceed 1.5°C, giving serious consideration to alternative models and scenarios than those currently being used in climate negotiations and taking into account other sources of knowledge and experiences into debate and decision making, including Indigenous Peoples' knowledge and peasant movements' proposals.
- The building blocks for a justice-based, transformative trajectory towards a 1.5°C world are being articulated and developed by communities, activists and scholars across the world. The solutions will be manifold, diverse and mindful of local and regional contexts. They include phasing out fossil fuel infrastructure – not just coal, but also oil and gas; expanding energy democracy powered by renewable energy from wind and solar; reducing energy and material consumption; a just transition for workers and towards a feminist and regenerative economy; supporting peasant agroecology and food sovereignty for climate justice in the food system; as well as vastly but carefully restoring the world's vital ecosystems, above all forests, integrating and respecting Indigenous Peoples' and local communities' rights.

Climate justice will only be achieved if we rely on environmentally sustainable and socially just solutions to the climate crisis instead of high-risk technofixes that privilege current polluters, extractive industries and the military-security complex.

Our home, lands and territories are not a laboratory for planetary-scale environmental modification technologies.

**WE SAY TO GEOENGINEERS:
HANDS OFF MOTHER EARTH!**

WHY IS GEOENGINEERING SO DANGEROUS?

LARGE-SCALE

For any geoengineering technique to have an impact on the climate, it will have to be deployed on a massive scale. Unintended consequences are also likely to be massive and irreversible, especially in the Global South.

UNRELIABLE

Geoengineering intervenes in poorly understood, complex systems such as the climate and ocean ecology. Interventions could go awry because of mechanical failure, human error, hostile interventions, incomplete knowledge, natural phenomena (like volcanic eruptions), trans-boundary impacts, irreversibility or funding failures.

THE PERFECT EXCUSE

Geoengineering offers high-emitting country governments and the fossil fuel industry an option other than reducing greenhouse gas emissions and moves them even further away from acknowledging their climate debt. For the fossil fuel industries, carbon dioxide removal techniques appear as an opportunity to continue with the status quo and make additional profits selling new sources of carbon credits.

UNEQUAL

OECD governments and corporations – who denied climate change or evaded responsibility for decades – are the ones with the budgets and the technology to hack the planet with geoengineering. Geoengineering is inherently high-risk and its negative effects, particularly in the case

of Solar Radiation Management, would be unequally distributed, impacting some regions in Africa and Asia severely, including potentially disrupting Monsoons and increasing droughts, which would endanger the food and water sources for 2 billion people. Geoengineering would also negatively impact biodiversity, indigenous territories and the lands and waters of peasant communities and other small-scale food providers, with women experiencing these impacts disproportionately.

UNTESTABLE

To know if geoengineering proposals would have an effect on climate change, it would need to be deployed at such a large spatial and temporal scale (to differentiate it from other ongoing climate phenomena) that it wouldn't be an experiment – it would be outright deployment, with all its potential intended and unintended impacts. Therefore, small scale experiments only serve the purpose of testing hardware and tools to advance research and investments that will then be used to justify “the need” for larger experiments and eventually deployment.

There are several SRM open air experiments planned, leaving computers and labs and moving into the environment and indigenous territories. The proposed experiments in the US are in indigenous territories. All of them are in contravention of the CBD moratoria.

UNILATERAL

Many proposed geoengineering techniques could be relatively cheap to deploy compared to massive investments in the real and just transformation we need to see, and the technical capacity to do so will be within reach of some individuals, corporations and states in the coming decade. A UN mechanism to prevent unilateral attempts at planetary modification is urgently needed.

TREATY VIOLATION

Geoengineering would violate international treaties that protect our oceans, human rights and biodiversity, among others. Many

geoengineering techniques have military applications and they could violate the UN Environmental Modification Treaty of 1978 along with the Convention on Biological Diversity and the London Convention /London Protocol on dumping matter into the oceans, among others.

Commercializing the climate: Many researchers and proponents of geoengineering have commercial vested interests, including patents and/or shares in geoengineering companies. Competition is stiff in the patent offices among those who think they have a planetary fix for the climate crisis. The prospect of a private monopoly holding the “rights” to modify the climate is terrifying.

CARBON PROFITEERING

Some geoengineers (including those promoting ocean fertilization, biochar, BECCS, DAC) as well as the fossil fuel industries – the largest culprits of climate change – aim to profit from carbon trading schemes by making these unproven geoengineering technologies eligible for offsets and demanding carbon pricing.

CLIMATE WARS

Geoengineering has military origins, particularly through the programs for weather control that were developed by the US Army and used in the Vietnam War, and it continues to be a focus for military interest. If Solar Radiation Management is deployed at the mega-scale needed influence the planet's temperature, it would create a new geopolitical power balance favoring those who can control the Earth's thermostat and inciting the escalation of geoengineering and counter-geoengineering measures.

DISTRACTION FROM SOLUTIONS

Geoengineering is a dangerous distraction. The mere proposal and consideration of geoengineering as an option is already deviating attention and resources for the real alternatives to climate change.

SIGNATORIES

INTERNATIONAL AND REGIONAL ORGANIZATIONS

Alianza por la Biodiversidad en América Latina
Amigos de la Tierra de América Latina y el Caribe (ATALC)
Asian Peoples Movement on Debt and Development (APMDD)
Biofuelwatch
Climate Justice Alliance
CIDSE
Corporate Accountability International
Corporate Europe Observatory
Development Alternatives with Women for a New Era (DAWN)
ETC Group
Focus on the Global South
Friends of the Earth International
Global Forest Coalition
GRAIN
Grassroots Global Justice Alliance
Heinrich Boell Foundation
Indigenous Environmental Network
International Oil Working Group
La Via Campesina
Navdanya, international
Oil Change International
Oilwatch Latinoamérica
Third World Network
Transnational Institute
World Indigenous Women's Alliance
World March of Women, Americas
World Rainforest Movement
Red Descolonialidad y Autogobierno
Oilwatch Latinoamérica
Tebtebba
Asia Pacific Forum on Women, Law and Development
Center for International Environmental Law

ORGANIZATIONS

350Bcn, Barcelona, Spain
ABA, Associação Brasileira de Agroecologia, Brasil
Acción Ecológica, Ecuador
Acción por la Biodiversidad, Argentina
Agenda Latinoamericana Mundial, Panamá, Panama
AGHAM-Advocates of Science and Technology for the People, Philippines
All India Forum of Forest Movements
Amigos de la Tierra, Spain
Amigos de la Tierra, Argentina
ANAA, Asamblea Nacional de Afectados Ambientales, Mexico
Association Citoyenne pour le Suivi, l'Etude et l'Information sur les Programmes
d'Interventions Climatiques et Atmosphériques, France
Asamblea Comunitaria del Pueblo de Alpuyecá, Morelos, Mexico
Asociación Red de Coordinación en Biodiversidad, Costa Rica
Association For Promotion Sustainable Development, India
ATTAC, France
Base-Is, Paraguay
Black Mesa Water Coalition, United States
CCFD-Terre Solidaire, France
CECCAM, Centro Estudios para el Cambio en el Campo Mexicano, Mexico
CECOEDECON, India
Censat Agua Viva - Amigos de la Tierra, Colombia
Centar za zivotnu sredinu/ Friends of the Earth, Bosnia and Herzegovina
Centre for Environment and Development, Sri Lanka
Centro de Análisis Social, Información y Formación Popular, Mexico
Centro de Desarrollo Agropecuario, Mexico
Centro de Encuentros y Diálogos Interculturales, Mexico
Centro Ecológico, Brasil
Centro Fray Julián Garcés Derechos Humanos y Desarrollo Local, Tlaxcala,
Mexico
CeProNat, Centro de Protección de la Naturaleza, Argentina
CESTA Amigos de la Tierra, El Salvador
CHIRAPAQ, Centro de Culturas Indígenas del Perú
ClimateWatch, Thailand
Code Pink Western Massachusetts, United States
Coalición en Defensa de la Cuenca de la Independencia, Guanajuato, Mexico
COECOCEIBA-Amigos de la Tierra, Costa Rica
Colectivo por la Autonomía, Jalisco, Mexico
Consejo Regional de Pueblos Originarios en Defensa del Territorio de Puebla
e Hidalgo, México
Consumers Association of Penang, Malaysia

Coordinadora de los Pueblos en Defensa del Río Atoyac, Veracruz, México
 DESMI -Desarrollo Económico y Social de los Mexicanos Indígenas, Mexico
 Earth In Brackets, United States
 Ecologistas en Acción, Spain
 EJES, Enlace por la Justicia Energética Socioambiental, Argentina
 Ejido San Isidro, Mpio. San Gabriel, Jalisco, Mexico
 Espacio Estatal en Defensa del Maíz, Oaxaca, México
 Farmworker Association of Florida, United States
 Fórum Mudanças Climáticas e Justiça Social, Brasil
 Free and Equal Rights, Indonesia
 Frente de Pueblos en Defensa de la Tierra y el Agua, Región Malinche,
 Puebla , Mexico
 Friends of the Earth Ghana
 Fundación Solón Bolivia
 Fundación Terram, Chile
 Global Justice Ecology Project, United States
 Groupe de recherche et d'information sur la paix et la sécurité, Belgium
 Grupo de Estudios Ambientales, Mexico
 Grupo Semillas, Colombia
 GWATÁ -Núcleo de Agroecología e Educação do Campo, Brasil
 HOME Foundation, Nigeria
 IBASE - Instituto Brasileiro de Análises Sociais e Econômicas, Brasil
 IDIS (Interface Development Interventions), Philippines
 Instituto de Estudios Ecologistas del Tercer Mundo, Ecuador
 La Asamblea Veracruzana de Iniciativas y Defensa Ambiental (LAVIDA),
 Mexico
 LEAD Agency, United States
 Les Amis de la Terre-Togo
 Marcha Mundial de Mujeres, Capítulo Cuba, Cuba
 MASIPAG (Farmer-Scientist Partnership for Development), Philippines
 Movement Generation, Justice and Ecology Project, USA
 MST, Movimento dos Trabalhadores Rurais Sem Terra, Brasil
 Navdanya, India
 NOAH, Friends of the Earth Denmark
 Observatorio de Ecología Política de Venezuela
 Observatorio Petrolero del Sur, Argentina
 ODG, Observatori del Deute en la Globalització, Spain
 Oficina Pro Defensa de la Naturaleza y sus Derechos, Ecuador
 Oilwatch Ghana
 PAIRVI, India
 Pakistan Kissan Mazdoor Tehreek (PKMT), Pakistan
 Philippine Movement for Climate Justice (PMCJ), Philippines
 Philippine Social Enterprise Network (PhilSEN), Philippines

Plataforma Boliviana frente al Cambio Climático, Bolivia
 Projekt des Allerweltshauses e.V., Germany
 Pronatura- Friend of the Earth Switzerland
 RAPAL, Uruguay
 Red Intercultural de Acción Autónoma, México
 REDES Amigos de la Tierra, Uruguay
 Reforest the Earth, United Kingdom
 RENACE, Red Nacional de Acción Ecologista de Argentina
 Roots for Equity, Pakistan
 Russian Social Ecological Union/ FoE Russia
 Sahabat Alam Malaysia, FOE Malaysia
 Save the Forest, Germany
 Sciences Citoyennes, France
 Taller Ecologista, Rosario, Argentina
 Tonatierra, Nahuacalli, Embassy of Indigenous Peoples, Arizona, United States
 Universidad de la Tierra en Oaxaca, Mexico
 UNORCA, Unión Nacional de Organizaciones Regionales Campesinas Autónomas, Mexico
 UNOSJO, Unión de Organizaciones de la Sierra Juárez de Oaxaca, México
 UPVA, Unidos por la vida y el medio ambiente, Argentina
 YFEED, Youth For Environment Education And Development Foundation, Nepal
 Young Environmental Protectors of the Northern Rivers New South Wales, Australia
 Bürgerinitiative gegen CO2-Endlager e.V., Germany
 CliMates, France
 Finance & Trade Watch, Austria
 Mom Loves Taiwan Association, Taiwan
 Trezando Ilusiones, Bolivia
 Revista Lucha Indígena, Perú
 Observatório da Questão Agrária do Paraná, Brasil
 Coletivo de Estudos pelo Território e pela Terra, Brasil
 Khpal Kore Organization, Pakistan
 Observatorio Petrolero Sur, Argentina
 Pakistan Fisher Folk Forum (PFF), Pakistan
 Enlace por la Justicia Energética y Socioambiental, Argentina
 Alianza de Comunidades en Defensa de las Cuencas del Río Bobos-Nautla Y Tecolutla, México
 La Asamblea Veracruzana de Iniciativas y Defensa Ambiental, México
 Observatorio de la Sostenibilidad, Spain
 Association For Promotion Sustainable Development, India
 Dogwood Alliance, United States

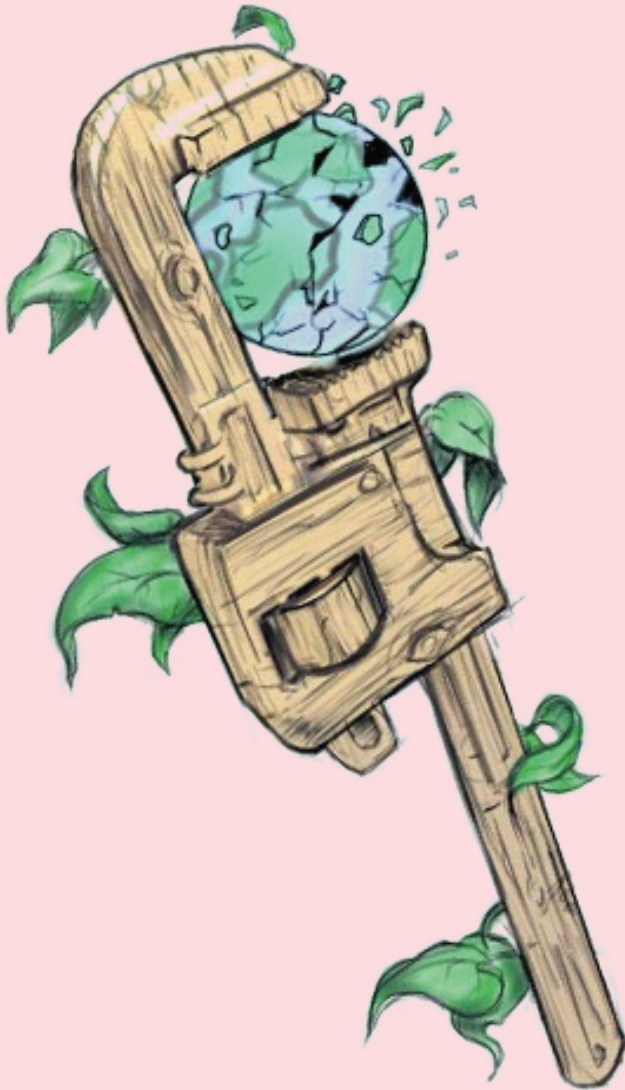
National Campaign For Sustainable Development, Nepal
 UBINIG (Policy Research for Development Alternative), Bangladesh
 Acción Ecológica, Ecuador
 EcoNexus, United Kingdom
 Instituto de Estudios Ecologistas, Ecuador
 Oficina Pro Defensa de la Naturaleza y sus Derechos, Ecuador
 Mensuario Peruano Lucha Indígena, Perú
 Instituto de Ciencias y Culturas Indígenas ICCI, Quito, Ecuador
 El Centro de Protección de la Naturaleza (CeProNat) de la ciudad de Santa
 Fe, Argentina
 White Rabbit Grove RDNA, Wisconsin, United States
 Santa Cruz Climate Action Network, United States
 350 Santa Cruz, United States
 Vigilante Costero Maule Itata, ONG. Miembros de Waterkeeper Alliance,
 Chile
 Red de Coordinacion en Biodiversidad, Costa Rica
 Terra de Direitos - Organização de Direitos Humanos, Brasil
 Laboratório de Estudos de Movimentos Sociais e Territorialidades
 da Universidade Federal Fluminense, Brasil
 Food & Water Europe, Europe
 Food & Water Watch, United States
 Centro Ecológico, Brasil
 African Centre for Biodiversity, South Africa
 Abibiman Foundation, Ghana
 Trident Ploughshares, United Kingdom
 Attac, France
 Human Nature Theater Company, United States
 Colectivo de Apoyo a Vía Campesina, seccional Medellín, Colombia

INDIVIDUALS

Vandana Shiva, India, Right Livelihood Award recipient
 Ricardo Navarro, El Salvador, Goldman Environmental Prize
 Pat Mooney, Canada, Right Livelihood Award recipient
 Nnimmo Bassey, Nigeria, Right Livelihood Award recipient
 João Pedro Stédile, MST, Brasil, MST is a Right Livelihood Award recipient
 Fernando Funes, Cuba, Right Livelihood Award recipient
 Thuli Makama, Goldman Environmental Prize

For a full, updated list of signatures, visit:

www.geoengineeringmonitor.org



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IMAGE: DAVID LEE NISHIZAKI