



GOOD ENERGY BAD ENERGY?

TRANSFORMING OUR ENERGY SYSTEM FOR PEOPLE AND THE PLANET | **SUMMARY**



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THIS IS A SUMMARY OF THE REPORT 'GOOD ENERGY, BAD ENERGY: TRANSFORMING OUR ENERGY SYSTEM FOR PEOPLE AND THE PLANET'. FOR THE FULL REPORT PLEASE SEE: WWW.GOODENERGYBADENERGY.ORG

ENERGY, A COMMON GOOD AND A BASIC HUMAN RIGHT

Energy is a common good and access to it is a basic human right and a necessary condition of a dignified life. We need energy for fuel and electricity to cook our food, to have habitable surroundings in hot and cold places, to ensure that everyone has access to basic services like health and education, to communicate, to travel, and to share and access information via the internet. Energy derives from a range of different sources including wood, fossil fuels, agrofuels, mega dams and nuclear power. It is connected to wider economic processes like the extraction of resources, the production and consumption of goods and services, and technological development.

“ OUR CURRENT ENERGY SYSTEM – THE WAY WE PRODUCE, DISTRIBUTE AND CONSUME ENERGY – IS UNSUSTAINABLE, UNJUST AND HARMING COMMUNITIES, WORKERS, THE ENVIRONMENT AND THE CLIMATE.

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WHAT'S WRONG WITH THE CURRENT ENERGY SYSTEM?

The world's current energy system – the way we produce, distribute and consume energy – is unsustainable, unjust and harming communities, workers, the environment and the climate. This is fundamentally an issue of power: of corporate and elite power and interests outweighing the power of ordinary citizens and communities. Key problems include:

- **Climate change:** Climate change is already happening – wreaking devastation on communities and ecosystems around the world. Yet without urgent action to reduce global greenhouse gas (GHG) emissions, we face a far worse situation of runaway climate change, with impacts which would dramatically overshadow anything that we are seeing today. In total, a vast 57 per cent of global GHG emissions have resulted from CO₂ released by fossil fuel use.
- **Energy access and energy poverty:** Nearly 1.3 billion people – or one fifth of the world's population – do not have access to electricity, and 2.6 billion people – close to two fifths of the people on the planet – do not have access to clean cooking facilities. There are also major inequalities in energy consumption globally. In 2008, the US used on average 7,503 kg of oil-equivalent per person per year, Britain 3,395, China 1,598, Uruguay 1,254, Vietnam 698 and Bangladesh only 192.
- **Energy waste:** The way we produce and consume energy is extremely wasteful, especially in industrialised countries where the vast majority of energy and energy-intensive products are consumed. Centralised energy generation systems waste more than two thirds of their original energy input, and large amounts of energy are wasted on short-life and disposable consumer products.
- **Destructive impacts of energy sources:** The main energy sources on which the world is currently reliant (oil, gas and coal), and other energy sources that are misleadingly put forward as 'clean' alternatives (nuclear power, industrial agrofuels and biomass, mega hydroelectric dams and waste-to-energy incineration) all have major destructive consequences for people, communities and the environment.

SUMMARY OF IMPACTS OF DESTRUCTIVE ENERGY SOURCES*

*Coal, oil, gas, nuclear power, industrial agrofuels and biomass, mega hydroelectric dams, waste-to-energy incineration

- **climate change** and the growing risk of runaway climate breakdown
- **land grabbing** and **displacement** and **impoverishment** of small-scale farmers, fisherpeople and rural and indigenous communities
- **air pollution** and **water pollution**, water shortages, **inadequate clean water and sanitation**
- **deforestation**, biodiversity loss, and the **destruction of landscapes and sensitive ecosystems**
- **rupture or collapse of local economies**
- badly paid, **unsafe, insecure jobs** far away from people's homes and families
- **health problems and premature deaths** in people living close to harmful energy projects and infrastructure or exposed to toxic waste
- **human rights abuses** of community members, activists and investigative journalists including **surveillance, arbitrary detention, violence, torture and murder**
- **loss of traditional medicines**, livelihoods, cultures, traditions and important sites of ancestor worship
- **social upheaval and community breakdown**

FAST FACTS



Every year, the equivalent of **400 years'** worth of plant growth is burned in the form of coal, oil and gas

57 per cent of global GHG emissions have resulted from CO₂ released by fossil fuel use



1.3 billion people – or **one fifth** of the world's population – **do not have** access to **electricity**



Energy consumption per head of population in the US and Canada is roughly twice that in Europe or Japan, more than ten times that in China, nearly 20 times that in India, and about **50 times as high as in the poorest countries of sub-Saharan Africa.**



Health researchers estimate the worldwide health toll from air pollution due to **COAL** combustion is 210,000 deaths, almost 2 million serious illnesses, and over 151 million minor illnesses per year, not including the effects of climate change.



The **DAM** industry has choked more than half of the world's major rivers with around 50,000 large dams, many of which are hydro-electric projects.



NUCLEAR waste needs to be stored safely for 1 million years, until radioactivity is reduced to the level of natural uranium. Safe storage solutions for nuclear waste are still not available despite extensive research.



A recent study estimates that the cost to the US taxpayer of 'defending' the country's **OIL** supplies amounted to US\$7.3 trillion over 30 years.



An assessment of 353 chemicals used in fracking for shale **GAS** found that a quarter could cause cancer and up to half could affect the nervous and immune systems.



Industrial **AGROFUELS** are estimated to account for about 66 per cent of land grabs in Africa, and up to 44 per cent globally. If industrial **BIOMASS** was included these figures would be even higher.



Waste-to-energy **INCINERATORS** emit more carbon dioxide per unit of electricity than coal-fired power plants.



In Antioquia, Colombia, farmers were displaced by the Hidroituango hydroelectric project. Many of them are now living on the campus of the University of Antioquia.
© CENSAT Aqua Viva
(FoE Colombia)

CASE STUDY THE HIDROITUANGO MEGA DAM IN COLOMBIA

Thousands of people are resisting the construction of the Hidroituango mega dam in Antioquia in the northwest of Colombia. The purpose of the dam is to generate an additional 2,400MW of energy for export to other Latin American countries and for domestic consumption by extractive industries in Colombia. It will cause irreversible damage to the Bosque Seco Tropical, a biodiverse-rich old growth forest area, and will displace communities of small-scale farmers, fisherpeople and traditional artisanal gold miners who inhabit the 3,800 hectares of land set to be flooded and the additional 24,000 hectares of surrounding land that is being established as a 'conservation' area around the reservoir.

Local people have already suffered significantly from several displacements and massacres as a result of the armed conflict in the area ongoing since the 1990s. In 2013 more than 250 local people participated in a seven-month long peaceful mobilisation for the rights of affected communities. These efforts were unsuccessful, and the displacement of communities by the police without compensation or consultation has already begun, resulting in their jobs lost, their way of life jeopardised, and many of their "cambuches" (artisanal houses by the river) burnt down.

Community members have also suffered harassment and mass detentions by the state police force in response to their peaceful protests, and are now facing serious threats to their individual and collective safety. On 17 September 2013 community leader Nelson Giraldo Posada was killed. Another community leader, Genaro Graciano, his family and neighbours were injured in an explosives attack on his home. The Ríos Vivos Antioquia movement believes that the attacks are connected to the community leaders' activism against the mega dam.

The affected communities are demanding the establishment of a high level commission to report on the human rights situation. Friends of the Earth Colombia is working as part of Movimiento Ríos Vivos Antioquia, the local branch of the national Colombian movement for the defence of the territory and people affected by dams, to help the affected communities secure the establishment of the commission and ensure their social, economic and environmental rights.



DRIVERS OF THE CURRENT ENERGY SYSTEM

- **Energy and neocolonialism, neoliberalism and extractivism:** Our energy system cannot be understood without reference to the global political economy that drives and sustains it. The system is totally reliant on the continued extraction and exploitation of natural resources. Extractivism is an economic model that has its roots in the large-scale exploitation and expropriation of the natural resource wealth of developing countries that began under colonialism. Its impacts have been exacerbated by neoliberalism – a political approach which prioritises the profit-making activities of private enterprise above social and environmental concerns, and individual freedoms over collective, public goods.
- **Profits from energy exploitation backed by law:** Multinational energy corporations and their state backers use profit-sharing agreements and government-to-government treaties to guarantee continued access to energy resources and the maximisation of profits from these resources. These agreements are fundamentally undemocratic and serve to undermine environmental and social protections and lock in extractivism.
- **Export-oriented economic growth:** Today's dirty energy sources and their harmful impacts are inextricably bound up with a model of export-orientated economics which prioritises the production of goods for export. This comes at a very high environmental and social cost to the people living in exporting countries, as a result of both the destructive energy sources needed to fuel these industries and the energy-intensive industries themselves.
- **Energy intensive lifestyles:** Modern life in advanced industrial economies is highly energy dependent. The industrialised world's high levels of energy consumption are predicated on the ready availability of energy, and on the environmental and social costs of the production of this energy being borne mostly by people and communities outside of their borders, mostly people and communities in the global South.
- **Energy market liberalisation and energy exclusion:** Energy poverty and lack of energy access is a direct result of governments' policies and legislative choices in favour of energy market privatisation and liberalisation, involving the sell-off and deregulation of energy infrastructure and services so that energy provision and investment becomes guided primarily by the objective of profit maximisation.
- **Corporate power blocking the energy transition:** The financial benefits extracted from energy production and use are a source of considerable economic power, which in many circumstances translates directly into political power – power that is exercised over and over again to maintain access to the profit-making opportunities that the destructive global energy system provides. In many places, politicians and policy makers have direct connections with and financial interests in destructive and unsustainable energy, and senior executives connected with energy industries are given powerful positions on government committees and regulatory bodies, all with obvious impacts on the energy policy choices of governments.



One of the plaintiffs in a case brought against Shell in The Hague, Eric Dooh, at home in Goi village, Ogoniland, showing oil pollution due to the company's operation in the Niger delta.
© Marten van Dijk / Milieudefensie (FoE Netherlands), 2012



EXTRACTIVISM IS AN ECONOMIC MODEL THAT HAS ITS ROOTS IN THE LARGE-SCALE EXPLOITATION AND EXPROPRIATION OF THE NATURAL RESOURCE WEALTH OF DEVELOPING COUNTRIES THAT BEGAN UNDER COLONIALISM.



WINNERS AND LOSERS

The global energy system has clear winners and losers. Destructive energy and the wider system disproportionately affects some groups in society, while other groups reap significant benefits. Overall the vast majority of people are harmed, exploited or excluded by the system, while a small minority take all the benefits.

WHO BENEFITS THE MOST?

- Dirty energy companies, construction companies, energy-intensive companies, especially their senior executives, financiers and investors
- Corrupt political elites in resource-rich countries
- Western industrialised countries
- National security forces and private security firms
- Wealthy consumers



WHO PAYS THE BIGGEST PRICE?

- People in the global South
- Women
- Indigenous peoples and rural communities
- Ordinary workers in dirty energy industries
- People in poverty

AVOIDING THE CLIMATE TRAP

Stopping climate change and averting its worst impacts requires an urgent and dramatic reduction in the greenhouse gas emissions emitted from our energy system. This in turn necessitates a rapid transition away from high-carbon energy sources like fossil fuels, nuclear power, agrofuels and industrial biomass and the rapid expansion of renewable energy. This transition carries significant risks and pitfalls which must be avoided.

- **RISK 1:** Corporate capture: corporations are influencing and co-opting policy processes to define how the energy transition happens and what types of energy sources and technologies are used in the interests of profit rather than people and the planet.
- **RISK 2:** Construction of renewable energy infrastructure could further drive land grabbing, enclosures, human rights abuses and environmental destruction.
- **RISK 3:** Raw material extraction for renewable energy infrastructure could further drive land grabbing, environmental destruction and human rights abuses.
- **RISK 4:** Greenhouse gas emissions from the massive roll-out of renewable energy infrastructure could still be more than the climate can handle.
- **RISK 5:** Renewable technology manufacturing can involve land, air and water pollution, and labour rights abuses.
- **RISK 6:** The transition to renewable energy could become a Trojan horse for energy privatisation, further undermining energy access and affordability for ordinary people.
- **RISK 7:** If some or all of the above risks are realised, the resulting withdrawal of public consent for renewable energy could threaten the energy transition overall and thus dramatically increase the risk of worsening climate impacts and runaway climate breakdown.

Some of these risks are already being realised, with communities being driven off their land by renewable energy projects which are being built to provide cheap energy to destructive corporations.

TOWARDS A **VISION** FOR A JUST, SUSTAINABLE, CLIMATE-SAFE ENERGY SYSTEM

Friends of the Earth International believes that it is possible to transform our current corporate-controlled, unsustainable and unjust global energy system into one that is climate-safe, just and sustainable, that respects the rights and different ways of life of communities around the world, and that meets the basic right to energy for everyone, without the extensive destructive impacts of current energy sources.

In our new Good Energy, Bad Energy report, we attempt to lay out what we consider to be the main features of a just, sustainable, climate-safe energy system. This vision is guided by the principle of energy sovereignty, which is **the right of people to have access to energy, and to choose sustainable energy sources and sustainable consumption patterns that will lead them towards sustainable societies.**

KEY FEATURES OF A JUST, SUSTAINABLE, CLIMATE-SAFE ENERGY SYSTEM:

- 1 | **Provides energy access for all as a basic human right**
- 2 | **Climate-safe and based on locally-appropriate, low-impact technologies**
- 3 | **Under direct democratic control and governed in the public interest**
- 4 | **Ensures the rights of energy sector workers, and their influence over how their workplaces are run**
- 5 | **Ensures the right to free, prior and informed consent and rights of redress for affected communities**
- 6 | **As small-scale and decentralised as possible**
- 7 | **Ensures fair and balanced energy use and minimum energy waste**

Some changes to help drive this transformation

- Invest in locally-appropriate, climate-safe, affordable and low-impact energy for all
- Reduce energy dependence
- End new destructive energy projects and facilitate a managed phase out of all destructive energy sources
- Ensure a just transition and compensation and support for affected workers and their communities
- Ensure the protection of free, prior, informed consent and rights of redress for affected communities
- Tackle the international trade and investment rules that prevent the transition to a just, sustainable and climate-safe energy system
- Facilitate the sharing, transfer, development and local adaptation of low-impact, renewable energy technologies
- End perverse incentives for destructive energy

HOW TO CREATE THE CHANGE?

Transforming the current energy system is one of the most difficult challenges of all and needs the most discussion among those communities, activists, campaigners and organisations whose aim is to bring about this change. Around the world, many communities are fighting for a just and sustainable energy system through local campaigns and struggles. Many communities are also taking the issue of affordable energy access into their own hands, building small-scale, locally-owned and -controlled wind, solar and micro-hydro co-operatives which meet local needs and end their reliance on the current exploitative, destructive, corporate-controlled energy system. **All of these struggles are about living, building and embodying the world we want to see.** As civil society, it is critical that we seek to support and strengthen these struggles, but we also need to go further. Most of the levers that can influence the production and distribution of energy in any major way are controlled by national governments, and in many places these decision making processes have been captured by corporate and financial actors with a strong vested interest in the current unjust and unsustainable energy system.

Unless we can outweigh the power of these vested interests and exert real democratic control over national governments' decisions about the energy system then it is likely that grassroots struggles that do succeed will remain lone islands in the context of an overall energy system that remains unsustainable, exploitative and unjust. **We need to build a common vision with all those who have an interest in transforming the energy system and whose skills are needed to make it happen, and a common strategy for how to get there. This process must include affected communities, communities without energy, energy users, energy sector workers, campaigners, academics and technical specialists amongst others. This is our initial contribution to that conversation as Friends of the Earth International.**



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FRIENDS OF THE EARTH INTERNATIONAL IS THE WORLD'S LARGEST GRASSROOTS ENVIRONMENTAL NETWORK, UNITING 74 NATIONAL MEMBER GROUPS AND SOME 2 MILLION MEMBERS AND SUPPORTERS AROUND THE WORLD. WE CHALLENGE THE CURRENT MODEL OF ECONOMIC AND CORPORATE GLOBALISATION, AND PROMOTE SOLUTIONS THAT WILL HELP TO CREATE ENVIRONMENTALLY SUSTAINABLE AND SOCIALLY JUST SOCIETIES.

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