

Burning our future: Greenpeace Regional report

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C o a l , C l i m a t e C h a n g e ,
and renewable energy in Asia

The world is in the grip of global climate change

Thousands have perished and countless more have become refugees due to the human-induced impacts of the world's changing climate. Millions of people are at risk from climate change, mainly the world's poorest living in the developing countries of Africa and Asia. Our hunger for deriving the majority of our energy from the burning of fossil fuels like coal, oil and gas, has resulted in the dumping of billions of tonnes of greenhouse gases into the atmosphere, primarily carbon dioxide (CO₂). Industrialised countries bear the main responsibility, but governments of developing countries are also to blame. Rather than avoiding the mistakes of industrialised nations, the governments of developing countries appear intent on repeating them and are being enthusiastically aided by the very countries that have turned their backs on dirty energy in favour of clean, renewable energy.

As most of the world's developed economies rush to exploit clean renewable energy sources like wind, solar and wave power, coal-fired power generation is rapidly expanding in Asia where booming, power-hungry economies make for rich pickings for companies mostly based in OECD countries who no longer have domestic markets for their dirty technologies.

The Impacts of Climate Change - Why action is needed now

From melting ice at the poles and retreating glaciers to extreme weather events, floods and droughts, and the spread of diseases, dangerous climate change is already with us. Scientists predict that current rates of human-induced climate change will have the greatest impacts on developing countries in Africa and Asia. Every year for the past 20 years, an average of over 400 million people have been

exposed to floods in Asia. Between 1987 and 1997, 44% of all flood disasters worldwide affected Asia, claiming 228,000 lives (93% of all flood-related deaths worldwide) and resulting in economic losses of around US \$136 billion.

A small, but important step was achieved when the Kyoto protocol became law on February 16, 2005 committing industrialised governments to cutting greenhouse gas emissions to at least 5% below 1990 levels by 2008-2012. We are already committed to future warming and further impacts due to the greenhouse gases already emitted and it will be impossible to avoid a 1°C or more increase above pre-industrial levels in the global average temperature. Climate impacts are already killing people and destroying ecosystems, but to prevent some of the worst impacts, we need to keep the average temperature rise to below 2°C above pre-industrial times and reduce it as fast as possible thereafter. This 2-degree target means there must be a global cut in greenhouse gas emissions by 50% from 1990 levels by the middle of this century; industrialised countries need to cut their emissions by at least 80% by 2050.

Achieving the necessary emission cuts means phasing out the use of fossil fuels as a source of primary energy and rapidly expanding the use of renewable energy sources coupled with energy efficiency programmes and demand side management. But the expansion of coal use throughout Asia is a major concern as coal produces more CO₂ than other fuel.

Kyoto now needs to develop and expand rapidly, extending the international emissions trading system and providing more help for developing countries to leapfrog dirty technology. The choice is clear - there is none.

The Potential for Renewable Energy

Providing the necessary energy services without further destabilising the climate or destroying the health, welfare and livelihoods of communities, can be achieved by the rapid expansion of renewable energy sources such as wind, solar, micro-hydro, wave and biomass power, coupled with increasing energy efficiency and conservation.

However, the potential for the uptake of renewable energy is not being realised, not because of technology failings but due to political and fiscal barriers - chiefly the estimated US\$250 and US\$300 billion

each year in subsidies which give fossil fuels and nuclear power generation such a market advantage over renewable energy.

Carbon Hypocrisy

The same governments who have agreed to cut greenhouse gas emissions and to transfer clean technology to developing countries are directly supporting an increase in global emissions and hooking these countries into polluting technologies through their Multilateral Development Banks (MDB) and Export Credit Agencies (ECAs). Australia and the US, which cite the fact that developing countries don't have emission reduction commitments, as justification for not signing the Kyoto protocol, are pushing fossil fuels, in particular coal, to Asia through funding and exports.

Financing Unsustainable Development

The transfer of 'dirty technology' is funded through government-backed financial institutions, which provide the loans, insurance and the guarantees needed to promote the coal addiction of the developing world. Despite the global and local impacts of fossil fuel power generation, and the availability of viable alternative solutions, more coal fired power generation plants are planned for Asia funded by various combinations of private banks, Multilateral Development Banks (MDBs) like the World Bank and the Asian Development Bank (ADB) and Export Credit Agencies (ECAs).

The 'Clean Coal' Myth

So-called 'clean coal' technologies, according to the industry, aim to try to reduce polluting emissions, chiefly sulphur and nitrogen oxides from coal power plants and increase efficiencies. But low sulphur is irrelevant when it comes to greenhouse gas emissions. To address CO₂ emissions, the coal industry points to 'end-of-pipe' technologies such as carbon capture and storage (CCS) and using trees, so called carbon sinks, to take out the CO₂ their industry dumps into the atmosphere. The notion that CCS will allow coal plants to be built and not add vast amounts of greenhouse gases to the atmosphere is an illusion. At best it will not be available for any new plants in the

coming 15 to 20 years and is an expensive and difficult process that might not work in the end. Much higher emission cuts can be made using currently available natural gas, wind and modern biomass that are already in widespread use. 1

Dumping Dirty Technology

Whichever way you wash it, pulverise it or scrub it, coal, from its extraction to its end use, remains a dirty, dangerous, polluting source of energy. Australia is the leading supplier of coal to the Asian market. In 2002-03, 80 per cent (165 million tonnes) of Australian coal exports went to Asia. Hong Kong based China Light and Power (CLP) is another key player in the Asian Coal market and aims to be the leading investor-operator in the Asia-Pacific electric power industry especially in the Chinese mainland.

Conclusions

Five issues drive the need for a massive expansion of renewable energy technologies:

- Protection of the global climate;
 - Protection of local human health, social welfare and the environment;
 - The need for poverty alleviation;
 - The need for secure energy supplies
 - Independent, stable and less vulnerable energy sources.

These issues demand an urgent change in the way governments plan for and support the development of energy sources and that the international finance system must stop supporting energy- and carbon-intensive production capacities and infrastructure.

Demands

ALL GOVERNMENTS

....should ratify the Kyoto Protocol allowing it to develop and expand rapidly, extending the international emissions trading system and providing more help for developing countries to leapfrog dirty technology.

INDUSTRIALISED COUNTRIES

...commit to 80% greenhouse gas emission cuts by 2050

ALL FINANCIAL INSTITUTIONS

1. ...should implement greenhouse gas emissions accounting for all projects
 2. ...should follow environmental, social and sustainable development criteria
 3. ...should help eliminate barriers to renewable energy and energy efficiency programmes
 4. ...should phase out investments in fossil fuel projects and aggressively increase investments in renewable energies