

China's climate choices

China's economic growth is unstoppable and with it comes an ever-expanding carbon footprint. The worst possible response from Europe to China's bulging contribution to climate change would be fearful paralysis, argue **Nick Mabey** and **Diana Parusheva** of Third Generation Environmentalism

There is no more powerful dynamic at work in the world today than the economic transformation of China. No other country in world history has managed to achieve economic growth of 8-10% for nearly two decades. No other country has transformed itself – in just 13 years – from a major oil exporter to the world's second largest oil importer, expected to overtake the USA by 2030. But with China's unprecedented economic expansion comes the risk of significant climate consequences. People have come to fear China not simply because of its growing economic might, but because of the carbon emissions that go with it.

We have already crossed the line where we could think of China as a distant country with far-away problems. Today, we face mutual and interlinked challenges. Both China and Europe worry about energy security, especially rising dependence on imported oil and gas. Both worry about the economic impacts of climate change, and both want to achieve climate stability without undermining energy security.

THE USA AND THE EU CONSUME ABOUT 70% OF CHINESE PRODUCTION. CHINA'S ENVIRONMENTAL FOOTPRINT IS THEREFORE OUR FOOTPRINT AND CHINA'S APPETITE FOR ENERGY AND NATURAL RESOURCES IS, IN TRUTH, DRIVEN BY OUR NEEDS

Choices made in China matter deeply. A stable and growing China will provide higher returns on our investments and trade and will be critical in securing pensions for our ageing population. China's decisions about its infrastructure needs will determine, to a large extent, what will be achievable globally in the way of greenhouse gas emission stabilisation and, eventually, reduction. China currently emits about 14% of the world's greenhouse gases and is expected to contribute about 17% by 2020. China is deploying capital so quickly that it offers the quickest route to bringing new, clean energy technologies to maturity.

China's economy is export-driven. Together the USA and the EU consume about 70% of Chinese production. China's environmental footprint is therefore our footprint and China's appetite for energy and natural resources is, in truth, driven by our needs. Of course, this will gradually change as domestic consumption within China rises. For instance, car ownership in China is currently low, at 17 million, but it is expected to rocket to 145 million by 2020.

We cannot respond to the threat posed by climate change on our own. We live in an interdependent world and we must build an engagement with China, one in which China has an equal interest. Our success in this endeavour will do much to determine whether we spend this century responding to extreme climatic events beyond our control. The age of genuine global interdependence has arrived and we must embrace it and make it work.

China opts for coal

In order to maintain stability China needs to continue growing. It has been estimated that a GDP growth below 7% per year would risk destabilising Chinese society. Chinese leaders are aware of the likely socio-political impact of slower growth and in response they have taken radical decisions to ensure a secure energy supply for China's industrial sector.

With no political option but to maintain high rates of continuous economic growth, China is left with the problem of dealing with increasing energy demand. There is no doubt where the majority of that energy will come from. In a world where energy competition dominates regional and international politics, China sees no alternative but to use its huge coal resources. Since 2003 China has been the world's largest coal producer and the real choice for China – and for us – is deciding how it will use its coal. Will it capture and store the carbon emissions from coal-fired power stations or will it release them into the atmosphere?

China is short on time to decide how clean its coal-based energy sector will be. Every five days a new 1GW power coal station is built in China and each of these represents a commitment to large-scale carbon emissions for decades to come. If all of China's planned coal-fired power stations are built by 2030 without carbon capture and storage they will emit 59GtC carbon over their lifetimes, which is equivalent to one-third of global carbon emissions released between 1975 and 2000. Clearly, there is no time to hesitate over whether to engage with China on these issues.

Vulnerable to climate impacts

For China, energy security is the key to internal stability. Chinese leaders have recognised their dependence on imported fuels and the effect that energy shortages could have on their political legitimacy.

China is also aware of its vulnerability to a changing climate. The advancing Gobi desert increased in size by 52,400 square kilometres in just five years and is now a mere 240km from Beijing. Meanwhile, the Bianmo desert is approaching the Chinese capital from the other side. These encroaching deserts act as a reminder to the Chinese leadership of the impacts of climate change. China is



Masks protect people in Tiananmen Square during a sandstorm caused by the encroaching Gobi desert

already facing water shortages, which have resulted in internal environmental refugees and severe business losses.

Leaders in China recognise the problem of climate change and understand how urgent it is. China has already drawn up an energy strategy similar to that of the EU, with an emphasis on securing energy supply through diversification of sources, radically increasing energy efficiency, and increasing the share of renewable energy to 15% by 2010.

CHINA IS DEPLOYING CAPITAL SO FAST THAT IT OFFERS THE QUICKEST ROUTE TO BRINGING NEW CLEAN ENERGY TECHNOLOGIES TO MATURITY

The question is whether China will be able to meet its climate and energy security targets. A review of China's previous five year energy plan shows that, so far, it has not been effectively implemented. Despite its spectacular growth, China remains a developing country with a wide distribution of control, weak governance, immature regulatory systems and high levels of corruption. All of these factors are likely to undermine the achievement of targets set by the central leadership. We all have an interest in helping China overcome these obstacles.

Influencing China's decisions

China is the fastest growing country ever seen and as such it is on the verge of putting in place transport and industrial infrastructure, technology and power generation facilities that will form the backbone of its economy for decades to come. China's choices in these areas will, to a great extent, dictate our future climate choices.

We must act now, before the critical infrastructure has been developed and implemented. China's appetite for energy technology presents a massive opportunity for businesses that can supply clean and efficient solutions.

On this issue European and Chinese interests coincide. We both want less dependence on imported oil and gas. We both need climate security. We both need zero emission coal technologies in our energy mix. To achieve these goals we need an effective alliance that builds on the strengths of the world's largest market – the EU – and the world's fastest growing economy – China.

Europe and China have already taken the first step in this process by agreeing in 2005 to accelerate cooperation on the development and practical demonstration of carbon capture and storage technology. The next step should be to deliver this commitment quickly by forming a consortium capable of building the first zero emissions coal power plant in China. This should be followed by cooperation to deliver other concrete outcomes in critical areas such as building efficiency, renewables, car emissions and freight efficiency. Only by developing strong cooperation based on mutual interests can we achieve our climate and energy objectives. ■

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FURTHER INFORMATION

The China-EU agreement, the Near Zero Emissions Coal project (nZec): www.defra.gov.uk/environment/climatechange/internationalcountry/china.htm