

China's 'rapid renewables surge'

By Mark Kinver
Science and nature reporter, BBC News

China's rapid investment in low carbon technologies has catapulted the nation up the global renewable energy rankings, a report shows.

The Climate Group study said China invested \$12bn (£6bn) in renewables during 2007, second only to Germany.

However, it was expected to top the table by the end of 2009, it added.

The findings have been published as China faces criticism over its air quality ahead of the Beijing Olympic Games, which begin on 8 August.

The report, China's Clean Revolution, brings together the latest data on the country's burgeoning renewables sector in one publication.

Co-author Changhua Wu, The Climate Group's China director, said the rapid rise in investment was, in part, the result of the government realising that the western model of industrialisation was unsustainable.

"China has been experiencing similar problems during its industrial revolution that western nations saw during their period of rapid growth - pollution, environmental damage and resource depletion," she told BBC News.

"Domestically, we are being constrained in many ways; we do not have that many natural resources anymore.

"We have to rely on the international markets, so there is a big security concern there."

Uncertainty over future energy supplies has seen global fuel prices reach record levels, which has resulted in renewable technologies becoming a more attractive option.

The report said China's \$12bn investment in renewables during 2007 was only just behind top-of-the-table Germany, which spent \$14bn.

In order to meet its target of increasing the percentage of energy from low carbon technologies from 8% in 2006 to 15% by 2020, China is expected to invest an average of \$33bn annually for the next 12 years.

This was going to result in China becoming the leading investor by the end of 2009, Ms Wu forecast.

Figures within the report showed that China was already the leading producer in terms of installed renewable generation capacity.

It has the world's largest hydroelectricity capacity since the controversial Three Gorges project began producing electricity, and the fifth largest fleet of wind turbines on the planet.

Although its installed capacity of photovoltaic (PV) panels is still relatively low, it is already a leading manufacturer of solar panels.

Ms Wu explained that the rapid growth of the sector was being driven by both government and business.

"In order to really drive towards a low carbon economy, policy incentives are crucial; but it is not always the case," she said.

"The wind sector's fast growth was mainly a result of domestic policies, because the government offered incentives to developments so that private and public sector entrepreneurs would jump on it.

"But the solar PV sector benefitted mainly from the international market, such as demand from the US and EU.

"Even today, the policy incentives are still not there, yet it still has grown to the level it is now."

Lingering legacy

However, despite the advances in low carbon technology, the legacy of rapid economic growth, which was primarily fuelled by burning coal, has been soaring greenhouse gas emissions.

In the final days before the opening ceremony of the Olympic Games in Beijing, there has been growing international concern over the air quality in the Chinese capital as the world's top athletes begin to arrive.

Organisers of the Games had promised that the city's notorious pollution would be cleaned up, so failure to deliver would be seen as an embarrassing environmental shortcoming.

City officials said that they would introduce emergency measures, such as banning the use of private cars and closing some factories, if conditions did not improve.

Although Beijing's troubles are currently under the media spotlight, air quality is a nationwide problem. According to figures from the World Bank, 20 of the planet's 30 most polluted cities are in China.

"In terms of total emissions, China is already the world's biggest emitter," Ms Wu said. "That's publicly available information, even the government is not denying it anymore.

"But if you look at emissions on a per capita basis, we are not the biggest emitters because we have 1.3bn people."

The report suggests that if China's population emitted as much as US citizens, its total emissions would be roughly equivalent to those of the entire planet's human activity.

"But just looking at numbers does not help tackle global climate change," Ms Wu added.

"In China, we are concerned about the speed of growth in emissions; it is really scary."

The report showed that China was only responsible for about 7% of greenhouse gases emitted in the period before 2002, when more than 90% of emissions from human activity were released.

But since the turn of the century, it added, China's portion has been growing steadily and now accounts for 24% of the global total.

The government is looking to stabilise its emissions by 2020, primarily through greater energy efficiency and the expansion of the nation's renewable energy infrastructure, including electric cars.

Ms Wu added that within the international climate negotiations, the Chinese were looking to developed nations to prove that they were serious about tackling climate change, such as delivering the mandatory cuts in emissions outlined in the Kyoto Protocol.

"If they are not able to do it with the technology available to them, then is it reasonable to expect China and India to do it?

"China does not commit itself to a number and then not deliver," she said, referring to whether China would sign up to legally binding targets in the ongoing UN climate negotiations about what system should replace the current Kyoto Protocol when it expires in 2012.

"If they commit, then they are very, very serious about; so they have to figure out what is possible."

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