

Environment need not pay price for economy, say academics

China has been urged to embrace tighter environmental controls after a major study concluded its ever-burgeoning economy is otherwise likely to bring more and more pollution.

Research into the link between the nation's economic growth and industrial emissions found the "undeniable strain" of the country's boom continues to have a negative effect on the environment.

The stark warning was delivered at the launch of the Globalisation and Economic Policy Centre's new centre at the University of Nottingham's Ningbo Campus.

Economists examined data for 112 Chinese cities for the period from 2001 to 2004 to determine various levels of water and air pollution.

Study co-author Rob Elliott, a Reader in Economics at the University of Birmingham, said the results offered "little scope for optimism" if tougher measures were not adopted.

He said: "China is the biggest polluter in the world. Seventeen of the world's 25 most polluted cities can be found in China, so its economic gains have come at a cost. More than 300,000 people are said to die prematurely each year due to air pollution.

"If it is to alleviate its environmental degradation and the health impacts resulting from it then a detailed understanding of the economic forces influencing industrial pollution is needed."

The economists investigated what effect output from three different types of firms had on pollution – domestic firms, firms affiliated to parent companies in Hong Kong, Taiwan and Macao, and foreign multinationals.

The research discovered China's own firms had the strongest detrimental effect on industrial emissions.

Firms with parent companies in Hong Kong, Taiwan and Macao were found to have a "moderate" effect on water pollution and a "significant" impact on air pollution, while foreign-owned firms had a largely insignificant effect.

Dr Elliott said: "There is a perception that the West is exporting its pollution problem to China, closing steel plants and factories at home and opening them in China instead where environmental constraints are not so tight, but the data suggest that is not necessarily the case – they are also exporting cleaner technology to China which seems to be counteracting this effect."

Dr Elliott said he was encouraged by recent moves by the Chinese government to recognise the importance of environmental regulations, but he added: "Our results suggest even more stringency and enforcement are crucial.

“The strain that such a large and rapidly growing economy is placing on the natural environment is undeniable.”

Growth, Foreign Direct Investment and the Environment: Evidence from Chinese Cities

Research paper author

Rob Elliott

Rob Elliott is a Reader in Economics at the University of Birmingham. His main research deals with international trade, environmental development, development economics in East Asia and China and the empirical testing of EU-ASEAN trade patterns.

About GEP

GEP - the Globalisation and Economic Policy Centre - is one of the major centres in the world studying the impacts of globalisation and economic policy.

The Centre has an impressive international reputation. Its academics have advised the WTO, the World Bank, the OECD, the Commonwealth and the Treasury.

GEP is based at the University of Nottingham and is substantially funded by grants from the Leverhulme Trust, one of Britain's largest funders of education and research.

As well as its new centre in Ningbo, GEP has a centre at the University of Nottingham, Malaysia, 30km from Kuala Lumpur.

GEP is keen to promote its research work and is committed to communicating its expertise to the policy-making community, fellow academics and students.

It achieves this through research papers, conferences, seminars, public lectures - including the prestigious The World Economy Annual Lecture - the internet and the media.

Website: www.gep.org.uk

About the China and the World Economy programme

China and the World Economy is one of GEP's four core research programmes, the others being Globalisation, Productivity and Technology; Globalisation and Labour Markets; and Theory and Methods.

CWE's launch at the end of 2005 was a response to the nascent interest in China's rapid integration into the world economy. From the outset it was envisaged the programme would be concerned with the implications of that integration – the opening up to trade and capital flows and the associated changes in markets – both globally and for China itself.

It was clear from the start that China's economic transformation offered extraordinary scope for in-depth and valuable research. At first there were obvious potential obstacles to the pursuit of high-quality study – the need to conquer cultural and linguistic barriers, for instance – but these were overcome through the appointment of internal and external Research Fellows and PhD students, all with research experience in and on China. Collaborations with other researchers and institutions both inside and outside China were also sought.

With China's journey to superpower status providing without question one of the most significant stories of globalisation, it is no surprise that CWE's own importance has continued to increase.

Now all of our efforts so far in following, analysing and helping to understand China's economic revolution have led to the programme's most important development yet: the opening of GEP in China.