

SPECIAL REPORT

China's green accounting system on shaky ground

Beijing is attempting to introduce a 'green GDP' accounting scheme as a way of ranking local governments' success in achieving economic growth that does not cost the environment. But the scheme is faltering at the pilot stage due to political infighting, says **Jane Qiu**.

Beijing has stifled an official report that measures the economic cost during 2005 of China's pollution and environmental damage — its 'green' gross domestic product (GDP) — claiming the methods and data available to make such a calculation are too crude for the findings to be meaningful.

Critics fear that this may have sent out a dangerous signal for local authorities to continue pursuing economic growth at all costs.

Originally scheduled for release in March, the "indefinite postponement" announced last week of the second report of the pilot scheme follows fierce dispute between China's environmental watchdog, the State Environmental Protection Administration (SEPA) and the National Bureau of Statistics of China (NBS).

At a press conference on 12 July, Xie Fuzhan, director of NBS, openly attacked the scheme, questioning its feasibility and methodology. Because of these uncertainties, it should be submitted to the State Council (the country's chief administrative authority) for reference, rather than released to the public, he told journalists. Wang Jinnan of the Chinese Academy of Environmental Planning (part of SEPA), who leads

the team calculating green GDP, held a press conference at which he defended the project and announced that the report would not be released anytime soon owing to disagreement between the two administrations. He also blamed the report's suppression on resistance from some local authorities, which he said had been lobbying the central government against it in their eagerness to maintain economic growth.

It is no secret that SEPA and NBS have been arguing over the new accounting scheme since

"A conservative estimate of China's environmental problems."

its launch in 2004, but many fear that their increasingly public turf war undermines SEPA and may lead to the accounting system being abandoned altogether.

Although China has stated its commitment to environmental protection since 1983, passing more than 100 environmental laws, economic development traditionally takes priority and local officials in China are still judged largely on their ability to improve economic growth. The pilot scheme — which subtracts the cost of natural resources used and pollution caused from regular GDP — aimed to mitigate some of these excesses and help guide new development.

In September 2006, the central government



released its first green GDP report with much fanfare. Internationally, it was greeted as a significant step forward by China in tackling its environmental problems. The report found that pollution cost China 511.8 billion yuan (US\$62 billion at 2004's official exchange rate, which underestimates the true economic value of the yuan), accounting for 3% of GDP for 2004. The environmental cost of water pollution, air pollution, and solid waste and pollution accidents accounted for 55.9%, 42.9% and 1.2% of the total costs, respectively.

The scheme does have critics — for example, it does not account for groundwater or soil contamination. "On the whole, this accounting system gives a conservative estimation of China's environmental problems," says Lei Ming, an environmental economist at the Guanghua School of Management, Peking University, who helped compile the report.

Admitting that the method of calculating green GDP needs to be improved, Lei says: "One must take a realistic and pragmatic approach towards the system. We can't get everything right at once and things will improve over time." He thinks that publicising the data could help curb environmental damage. "The stakes are high and we don't have a better alternative at the moment," he says.

Yang Xin, president of Green River, a Chinese non-governmental organization, agrees. He is "bitterly disappointed" at the report's suppression, saying: "An unprecedented environmental crisis is unfolding in China. We can't

Monitoring air pollution

The State Environmental Protection Administration (SEPA) has earmarked 4 billion yuan over the next two years to develop air-monitoring systems for the four main pollutants — sulphur dioxide, nitrogen dioxide, particulate matter measuring 10 microns or less and carbon monoxide. By the end of 2008, all provinces must establish air-monitoring centres and the provinces surrounding Beijing must have the systems running by the

end of 2007 in preparation for the 2008 Olympics.

"It's a huge amount of money. If after a couple of years air quality is not much better we cannot say this is not our responsibility," says Liu Bingjiang, head of SEPA's air pollution division. Given China's size, it will be a challenge.

According to Jiming Hao, an environmental scientist at Tsinghua University in Beijing, only 47 of 600 major cities in China currently have

adequate air-monitoring systems. There is talk of adding ozone to the list of pollutants to be tested for, but so far Beijing only has seven ozone monitoring stations, compared with 30 for monitoring the other four.

SEPA will train personnel to assess the anti-pollution technologies because factories have installed equipment to meet regulations, but don't always use them owing to running costs.

David Cyranoski



2007 has been named China's year of algae because of repeated outbreaks due to pollution.

afford to wait for a perfect accounting system to emerge while watching local governments destroying our environment.”

However, some environmental groups are sceptical of the scheme. “It is premature to implement such a system due to lack of an established formula to follow,” says Zhang Jianyu, programme manager at the Beijing office of the Environmental Defense, a US non-profit environmental advocacy group. “There are other ways of measuring environmental impact.”

Technical hurdles

Undoubtedly, there are technical hurdles in setting up a method of calculating green GDP. The United Nations, which has been working on a similar system for integrating environmental and economic accounting since the early 1990s, is still debating with economists, environmentalists and policy makers on how it should be done. According to Karl Schorer, head of the environmental-economic accounting department at the Federal Statistical Office of Germany, the main obstacle of such systems is the difficulty in calculating the market value of environmental impact — be it the extinction of a species, the cost of soil erosion due to deforestation, or the health damage from pollution.

In some developed countries such as Germany, the current practice is to associate specific environmental damage — for example,

carbon dioxide emissions — with the economic activities that cause it, and to have polices in place to regulate the industries involved. Alternatively, one can set an environmental target, for example, cutting emissions, and then calculate the estimated cost to reach that target. “It is very challenging to take everything into consideration and come out with a single figure,” says Schorer.

However, some critics claim that scientific difficulties are beside the point, the NBS is succumbing to pressure from local authorities. “The methodological issue is just a pretext,” says a Beijing-based environment writer who asked not to be named. Sources close to SEPA told *Nature* that the scheme has met with fierce resistance from some local governments and that these are largely responsible for the difficulties it is facing.

“Green GDP is a highly sensitive topic at the local level,” says Lei. Some officials “turn pale at the mention of green.” The report’s suspension “shows that the scheme has touched a nerve,” he adds.

Jennifer Turner, coordinator of the Washington-based China Environment Forum, which acts as a clearing house for information on energy and environment issues in China, says the refusal by local governments to participate in the green GDP programme shows they are



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afraid of more information escaping. “The squirming of the local governments means [the green GDP plan] is working. They’re running scared. Their feet are being put to the fire.”

The second report ranks all 31 provinces, autonomic regions and municipalities according to their green GDP. Some areas, especially those in the central and western part of the country, are relatively high on the GDP list, but their rankings fall significantly when environmental costs are factored in, says a SEPA source. An article published in the *Economic Observer*, a Chinese newspaper, claims that the second report shows that there was an increase in the proportion of economic loss due to environmental pollution as relative to GDP in 2005 compared with the previous year.

Lei declined to confirm the report, but says that “you don’t need the numbers to tell that the environmental problems in China are worsening”. Indeed, they are painfully visible: Beijing, which is set to host the 2008 Olympics, has reported its worst June air pollution in seven years. Meanwhile, this year has seen repeated outbreaks of blue-green algae in the country’s lakes and waterways — so much so that 2007 has been named China’s year of algae. According to an article in the *Financial Times* this month, China asked the World Bank not to publish “sensitive” estimates of the number of premature Chinese deaths each year from polluted air and water, calculated to be around 460,000, with a further 300,000 who died from indoor toxins.

The ‘green’ price of development can be scarily high. In the northern province of Shanxi, a coal production centre, environmental costs and natural-resource losses constituted a third of its GDP in 2002. “Of course, local officials don’t want to see that on paper,” says the SEPA source.

The timing is a crucial factor, too. The Chinese Communist Party will hold its 17th five-yearly party congress this autumn, which will involve a lot of reshuffling, and officials would not like to have green GDP pose a stumbling block to their promotion.

A final decision on the fate of the green GDP accounting system will be made by the State Council, and all parties involved are holding their breath.

As a small ministerial authority, SEPA has long suffered from lack of resource and actual power. Although authorized to regulate the country’s environment, it’s often an uphill struggle for the agency to exert its influence among local governments and the business of entities on a par with itself. If the green GDP scheme were brought to a close, SEPA would have a tougher time ahead. ■

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