ENVIRONMENTAL Intelligence

China Taking a Serious Look at "Green GDP"

Early in 2004, the Chinese government declared that it would implement a new indicator of economic output—one that, unlike Gross Domestic Product (GDP), would incorporate the environmental impacts associated with economic development. Specifically, this "Green GDP" indicator would subtract out the costs of resource depletion and pollution from GDP. If this measure had already been instituted in China, GDP growth would have fallen from an average of 8.7 percent between 1985 and 2000 to 6.5 percent, according to research by the Chinese Academy of Sciences.

The developers of the Green GDP have three goals. First, the new measures would distinguish between beneficial and detrimental economic output, helping to stimulate growth that does not come at the expense of environmental quality. For example, desertification—in large part triggered by deforestation and unsustainable agricultural practices—now costs China $6.5 billion per year, according to the United Nations Convention to Combat Desertification. Calculating the Green GDP would help incorporate these hidden costs of forestry and agriculture.

Second, measuring Green GDP could increase economic efficiency, in terms of output per unit of energy and materials. Currently, China consumes three times more mineral and energy resources per unit of output than the world average, according to the Chinese Academy of Social Sciences. Subtracting costs of resource depletion would discourage such waste—an important development, considering that two-thirds of mines are more than half depleted, according to the Chinese Ministry of Land and Resources.

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Digging a well to water road-side plants intended to prevent desert encroachment of an oil-field highway

The third goal is to help local officials (who are currently promoted primarily by how much they increase local economic growth, even at the expense of the environment) adopt a more sustainable understanding of economic success.

Whether China will actually succeed in implementing this new measure is uncertain. In an interview with the Xinhua News Agency, Pan Yue, deputy director of the State Environmental Protection Agency (SEPA), noted that the agency faces two large obstacles. First, there will be resistance by those local officials whose localities are most polluting and thus are most threatened by altering the measure of economic success. Second, accurately determining pollution and resource depletion presents a significant technological hurdle, as there is still no generally accepted means of calculating the monetary worth of public goods such as clean water or healthy forests. Nonetheless, some cities and provinces have already started to apply elements of the Green GDP indicator. For example, the city of Chongqing is calculating the cost of pollution, and the province of Hainan is assessing the value of its forest resources. In June, SEPA co-sponsored an international workshop with the NGO Environmental Defense to design an effective method for quantifying the new indicator.

If the Green GDP measure is fully implemented in the next three to five years as the government intends, China will be the first major economic power to incorporate environmental externalities into its calculations of economic output. If other major economic powers—most probably, Japan or the European Union—were to follow suit, the effect could be to revolutionize the world's thinking on what constitutes economic success.

—Erik Assadourian