

Environmental Accounting and GDP in China And India

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Abstract: Environment is a rich heritage handed over by previous generations. However the nature's stragglng behind the economic development creates a chaotic atmosphere. Accountants are justifiably among those who might be criticized for this chaos because accounting which is the language business has never spoken for nature and environment except for the recent decades. The author tries to make the tragedy of environmental degradation More palpable through the numbers and accounting for senior managers and other participants to have a better understanding of the issues. Green economy means an economy that has the ability to rebuild itself as a stable one. The present economy of China and India are moving too rapidly in recent years and kills the environment that nourishes it which is a sort of suicide like a cancer that eventually led to its death with the elimination of host cells.

Key word: Environmental accounting; Green GDP; The green GDP accounting.

1 INTRODUCTION

Accounting sometimes referred to as the language of business hence it can describe all type of business activity even environmental activity. In this article struggles to be the language of environment and language of business for China and India. Accounting is required to submit various types of user information on the financial position and performance of entities in the management of resources at their disposal. In recent decades a growing number of entities give great importance to environmental issues and their reflection by accounting, either under the influence of administrative regulations or because of their information needs. In certain circumstances, for certain fields, they can have a significant impact on the financial statements, and that of their users. Green accounting has been around for two decades. As in all cases, environmental management accounting is a tool to inform managers about the environmental costs, to quantify the environmental effects of the entity. In 3 recent decades, The rapid economic rise of China, followed by that of India, has led to a new balance of power in the world economy. Spectacular economic growth in China and India has serious environmental consequences. China and India are still in the process of industrialization and urbanization which will exert more pressure on the environment. And since India and China have more than 36 percent of the population of the world the evaluation of the subject in these 2 countries has the greatest importance. In many respects, China and India seem similar. Both are large geographically and have enormous populations that remain very poor. That's why authors have chosen 2 huge population countries in the world (China 1.36 billion and India 1.22 billion in 2012) with , the average real rate of GDP growth (during 1978-2007 is 9.9% in China and 5.6% in India) to compare. Environmental pollution becomes so acute and the stakeholders' awareness to the issue becomes so serious that environmental accounting has become a strong branch of accounting. Still, attention towards the style and recognition of environmental accounting is not a generalized one. Legal authorities, standard setting bodies and other regulators cannot come to a consensus regarding the conceptual framework of environmental accounting and its disclosure. Thus, such disclosure is not mandatory rather voluntary that has no specific style or format. With the passage of time, more guidelines are coming in customized format that may lead us to reach a common format for recognizing environment.

Related data and disclosure thereof through financial statements. Still, such disclosure is guided by the social responsibility and commitment on the part of the entities that work as strong agents for polluting the environment. More emphasis is given on environmental accounting and awareness for that as this is supposed to be the need of today.

The adverse environmental effect of economic development has become a matter of great public concern all over the world. Gradually, environment is becoming a much more urgent economic, social and political problem Accountants, as the basic custodian and light bearers of economic development, can no longer shut their eyes to the effect of environmental issues on business management, accounting, auditing and disclosure system. Protection of environment and the potential involvement of accountants is becoming a common subject of discussion among the accountants all over the world. Now-a-days, accountants are expected to take a proactive role in the environmental protection process. With the advent of liberalization, removal of trade barrier makes it logical that the costs of environmental degradation due to industrial activities should be internalized in corporate accounts to the extent possible.

That's why environmental accounting and reporting thereof is of paramount important today.

2 GREEN GDP IN CHINA AND INDIA

$GDP = \text{Consumption} + \text{Investment} + \text{Government spending} + (\text{Export} - \text{Import})$.

$\text{Green GDP} = \text{GDP} - \text{Environment costs} - \text{Social costs}$.

Green GDP methodology is an adjustment to traditional measures of a country's output of goods and services taking pollution and waste of resources into account. This method refers to an accounting system in which environmental degradation costs and natural resource depletion costs are factored into the calculation of GDP growth. The goal of this methodology is presumably to provide a better measure for guiding public economic policy and thereby contributing to a more welfare-rich outcome than could be achieved using traditional measures. The green gross domestic product (green GDP) is an index of economic growth with the environmental consequences of that growth factored in. In 2004, Wen Jiabao, the Chinese premier, announced that the green GDP index would replace the Chinese GDP index itself as a performance measure for government.

The first green GDP accounting report, for 2004, was published in September 2006. It showed that the financial loss caused by pollution was 511.8 billion yuan (\$66.3 billion), or 3.05 percent of the nation's economy. As an experiment in national accounting, the Green GDP effort collapsed in failure in 2007, when it became clear that the adjustment for environmental damage had reduced the growth rate to politically unacceptable levels, nearly zero in some provinces. In the face of mounting evidence that environmental damage and resource depletion was far more costly than anticipated, the government withdrew its support for the Green GDP methodology.

A measure of Green GDP will almost certainly give policymakers and the interested public a more defensible estimate for the extent and scope of environmental challenges. Based on a review of the two strategies in combating pollution, this paper suggests that a combination of governmental intervention and free-market operation could be a better strategy to reverse China's heightening environmental challenge. The concept of Green GDP was initially developed in the West in the 1960's (Pearce, Markandya, & Barbier, 1989). This concept is a relatively new idea in China and there is controversy over how to implement a financial accounting approach to measure the costs of environmental damage and degradation caused by pollution and resource exploitation. In spite of these difficulties, two Chinese government agencies, the National Bureau of Statistics (NBS) and the State Environmental Protection Agency (SEPA), were designated to research and develop the Green GDP index and use it as a standard measure of China's environmental sustainability. These two government agencies measure environmental costs in terms of economic growth. By so doing, China will be the first country in the world actually implementing the Green GDP concept in the measurement of its economic activities. To better understand the background for the issues involved in China's recent request for Green GDP, it is necessary for a historical review of human activities and environmental protection. Let me briefly review the environmental crisis China now confronts. In the 1960s and early 1970s, when the international community started to pay serious attention to environmental issues, China was experiencing chaos because of the Cultural Revolution. With ignorance, the Chinese

government chose to deny its pollution problems and refused to participate in the international conference on human environment by claiming here is no need to participate in a global conference to address the environmental protection. A socialist nation does not suffer from the environmental ills of capitalism” (Ferris & Zhang, 2002).

Unfortunately and ironically, forty years later, China became one of the most polluted nations in the world. The air and water were badly polluted and much of China’s land was contaminated, Stalinized or deforested. According to the World Bank, in 2000 China had 16 of the world’s 20 most polluted cities. According to the International Energy Agency (IEA) forecasts, the increase of greenhouse emissions from 2000-2030 from China alone will nearly equal the increase from the entire industrialized world.

China’s emissions of sulfur dioxide were the highest in the world in 2004. Acid rain caused by coal-burning plants caused striking damage to agriculture, buildings, and public health.”(SEPA, 2006). Green GDP accounting is closely related to the basic situation of a country. China and India as developing countries are at the stage of rapid economic development. It has wide territory, huge population and is relatively lack in natural resources. At the same time, the soaring development of economy has resulted in rapid growth of exploitation and utilization of natural resources. The rapid economic development in China and India thus mainly depends on the competition of resource, competition of environment and competition of investment. It is almost impossible to accurately figure out the pollution costs of China’s GDP because of the lack of standards for measurement and the difficulties in collecting relevant data on pollution damage. The World Bank estimated that pollution costs China 5% of its GDP, including health care and lost productivity. In 2004, the Economist estimated that pollution decreases China’s GDP by 12%.

At present, green GDP accounting has become an irresistible international trend and will gradually become the important basis for formulating and implementing sustainable development strategy by different countries. It is even more important and urgent to China and India.

Think twice before you cut that tree or throw a plastic bag into the river-you might be lowering India’s GDP. India aims to factor the use of natural resources in its economic growth estimates by 2015, environment minister Jairam Ramesh said, Pilot projects have already been initiated and the ministry of statistics & programme implementation is in the process of preparing a national database, making depletion of natural resources a key component in its measurement of GDP.

Beginning in 2010, India, as part of the country’s five year plan, aims to factor the use of natural resources into its GDP as a means of underscoring its actions in the fight against global warming. Despite not being obligated to reduce carbon emissions under the Kyoto Protocol, India is taking unilateral domestic actions to move toward a greener economy and to strengthen the country’s position as a major player in international environmental initiatives. India’s environmental minister Jairam Ramesh hopes to make “green accounting” a reality as part of India’s governmental policy on economic growth. Ramesh estimates that by 2015, India should be able to provide alternative GDP estimates that account for the domestic consumption of natural resources. Specifically, these estimates will provide details on the amount of natural resources that are consumed during the course of economic growth, the degree to which the environment is being degraded as part of the growth process, and the amount of mitigation

that occurs as a means of correcting this degradation. This obviously presents a number of institutional and policy related challenges. First and foremost, governments do not want to give off the impression that economic growth and development has stalled, either to their constituents or to the international economic community. Accounting for environmental degradation may lead to a significantly lower GDP, which has made many developing countries reluctant to measure environmental impacts. The Chinese example, the preeminent experiment in green GDP, has served to reinforce this fear.

From a policy standpoint, the primary concerns surround how to properly measure environmental degradation in monetary terms, and how that information will be gathered. In developing countries like India, this often has to do with the issue of property rights. Clarifying ownership will help to put a value on clean air, clean water, and other resources. Commonly, this valuation system takes the form of cap and trade or similar policies, effectively allowing the market to determine the price of environmental goods and services. For green GDP to be most effective, companies and other users are relied on to accurately report pollution emissions. This is one of the many problems of being able to “buy” the “right” to pollute – market prices may encourage a polluter to lie in order to keep its emissions within its allotted limits, which would reduce the accuracy of a green GDP measurement. Putting a price on the right to pollute may also stall green innovation that may be beneficial to development and traditional GDP – it may be more economically beneficial for a polluter to buy up more pollution credits than to implement new technologies or retrofit existing ones.

Over the last three decades, the world has been astonished by the miraculous economic growth of China and India. . Though there is a gap in the growth performance between the two countries, India has caught up with China in the past decade, particularly in recent years. With both countries’ governments being fully committed to the goal of high economic growth, the current development momentum is expected to continue for decades.

However, high growth has been achieved with severe environmental damages such as deforestation, widespread acid rain and deteriorating ambient air quality. These consequences threaten human living space and health, and are costly to deal with. A government report shows that the environmental cost accounts for about 3% of China’s GDP. In India it is estimated that the damage and degradation of natural resources is equivalent to about 10% of the country’s GDP. While these estimates may be debateable, there is no doubt that pollution has serious health and economic consequences. Independent estimates of the cost to China of environmental degradation and resource depletion have for the last decade ranged from 8 to 12 percentage points of GDP growth. These estimates support the idea that, by this measure at least, the growth of the Chinese economy is close to zero. The most promising national activity on the Green GDP has been from India. The country’s Environmental Minister, Jairam Ramesh, stated in 2009 that “It is possible for scientists to estimate green GDP. An exercise has started under the country’s chief statistician Pronab Sen and by 2015, India’s GDP numbers will be adjusted with economic costs of environmental degradation. Currently, a framework of China’s green GDP accounting has been set up. The next step is to, in addition to improve the current framework, speed up the local pilot work so as to verify the practicability of the theoretical framework. Besides, it is also imperative to strengthen international cooperation to establish a green national economic accounting system that keeps pace with the international society.

3 FURTHER IMPROVE THE GREEN GDP ACCOUNTING METHOD

The green GDP accounting is a complex system, involving not only a complicated economic system but also various kinds of natural resource and environmental elements. As seen from the international research experience, green GDP generally begins with local accountings, or focuses on specific resource types or environmental problems. The statistical institutions within international organizations have timely summarize these local accountings and upgrade them into theoretical and methodological researches, which can serve as methodological direction on the green GDP accounting in China and India.

The improvement of China and India's green GDP accounting theories and methods can be considered from the following four aspects: 1) Further improving the theoretical framework of green national economic accounting. Currently, two relatively ideal frameworks, i.e. China Resource and Environmental Economic Accounting Framework and China Environmental Economic Accounting Framework, which are connected with China's national statistical accounting system and keep pace with the international society, have been formulated. However, there are still leave many detailed problems in the two frameworks. These problems are to be further improved in combination with pilot work. 2) Formulating technical guideline on physical quantity accounting for both the environment and the resources. 3) Formulating technical guideline on value quantity accounting for both the environment and the resources, which are a focus as well as a difficult for carrying out green GDP accounting. The value quantity accounting mainly includes two parts, i.e. natural resource consumption and environmental degradation. 4) Carrying out countrywide survey for environmental pollution loss accounting. The theories and methods of environmental pollution loss accounting will be accomplished on the basis of the national environmental pollution loss evaluation work already undertaken. This is a basic work for green GDP accounting.

4 SPEEDING UP LOCAL PILOT ACCOUNTING WORK

As a new accounting system, green GDP has the problems of being not in line with traditional national economic accounting system and having difficulty in collection and analysis of statistical data. In addition, it requires huge data and involves many departments for data collection and thus will be difficult to promote. It is possible to first carry out some pilot work in some areas. This will be of realistic significance for the promotion of green GDP in China.

Therefore, SEPA and NBS have determined to first choose 10 provinces (municipalities) to carry out pilot work on green GDP accounting and environmental pollution loss survey during 2004~2006, in order to earn experience for establish national green GDP accounting and environmental pollution loss evaluation system. It has been planned to establish an initial framework of green GDP accounting system that is fit for China's own situations in 3 to 6 years. At the same time, the public awareness on green GDP will accordingly be enhanced. China and India's GDP growth rates have outperformed world average growth rates and, indeed, those of other lower and middle income countries for the most part of the last 15 years. China has grown at an average rate of close to 10% annually during 1990-2006; a rate at which income more than doubles every seven years. Although regarded as a success, India's performance was less spectacular than China's with an approximate rate of growth of 6% annually. The growth of world economy in the corresponding period amounted to approximately 3% annually Green GDP was weak to begin

with because the environment remains a tertiary priority behind growth and social stability. As long as growth continues to generate wealth and social stability, the central leadership will have very little motivation to prioritize the environment, and local governments will have even less motivation to follow central environmental policies.

In the end, the Green GDP program was effectively a strawman set up to appease the global audience and the critics of India and China's environmental record. While the initiative initially made the Chinese and Indians government look progressive and proactive, the numbers that came out of the program revealed a shocking level of environmental degradation, leading Beijing and Delhi to cancel the program rather than face the embarrassment of more damning statistics.

Key problem in policing a shift towards a greener economy in China and India are highlighted in the experiences and failure of its green GDP project . China and Indian's governance structure for environmental management, the degree of additional data collection required, and lack of consistent rules for environment valuation all contributed to the failure of the use of green GDP in China and India.

5 CONCLUSION

Greening the national accounts is useful, especially in developing countries like China India which are characterized by high population growth and pressure on natural resources. The adjusted GDP acts as a deflator to the real GDP. The gap between GDP and the adjusted GDP serves as a signal of importance of environmental effects. China and Indian's miracle of economic growth might end soon because it will be overwhelmed by environmental problems. Regardless, the Green GDP estimates provide a better understanding as to the serious extent of the environmental challenge. The Green GDP report serves as a wake-up call for China to undertake the challenge seriously and immediately.

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