

Economic Growth, Environmental Conservation and the Asia-Pacific Region

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The Asia-Pacific region covers 40% of the Earth's land area¹ and is rich in natural resources. The region includes the world's second largest rain forest, more than half of the world's coral reefs and about 17% of the world's wetland areas.² Its rivers, coastal and marine fisheries, mangroves, and coral reefs are among the most diverse and productive in the world. In addition, the region is home to a diverse group of countries in terms of population and economic growth, including the world's most populous countries such as the People's Republic of China (PRC) and India, the small island states in the Pacific, very rich countries such as Japan, Republic of Korea, Singapore and Taipei, China and some of the poorest countries including Bangladesh, Cambodia, Lao People's Democratic Republic and Nepal.³ Over the past few decades, most of the countries have undergone a profound social and economic transformation and this has put the region's natural environment at great risk. This essay aims to examine the current economic and environmental situation in the Asia-Pacific region and explore if and how the conflict between economic growth and environmental conservation can be reconciled.

The State of Economic Growth and Environment in the Asia-Pacific Region

Many regions of the world have witnessed momentous economic and social changes since the end of World War II, but none can rival the profound transformation in the Asia-Pacific region. The region's industrial production increased by 38%, as compared with a global increase of 23%, from 1995 to 2002; agricultural production increased by 62% from 1990 to 2002; and manufacturing activity increased by 40% from 1995 to 2002.⁴ Asia's share of global economic output was 10% in 1950, 30% in 1995 and is expected to reach up to 60% in 2025.⁵ However, this has been achieved at a high price. The region has been a source of material inputs and a sink for pollution and other negative outputs from economic activities (footnote 2). Currently, the processes of economic growth are exerting increasing pressure on the ecological carrying capacity of the region.

This has led to serious environmental consequences at both the local and global levels (footnotes 2 and 3). Most countries in the region are experiencing extensive soil degradation and deforestation, water pollution and water shortages, horrendous air pollution in cities and major depletion of natural flora and fauna. These problems are not confined to national boundaries as the problems of transboundary air and marine pollution, acid rain and international transfer of hazardous wastes are of increasing concern.^{6,7} Moreover, the emissions rate of greenhouse gases is growing rapidly in the region, contributing significantly to global warming and its consequences, which include climate change, temperature extremes, rising sea levels and natural disasters. The Asian Development Bank (ADB)

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¹ United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). 2006. *Green Growth at a Glance: The Way forward for Asia and the Pacific*. Bangkok: United Nations.

² Asian Development Bank (ADB). 2001. *Asian Environment Outlook 2001*. Manila.

³ United Nations Environment Programme (UNEP). 2001. *Asia Pacific Environment Outlook 2*. Available: <http://www.rrcap.unep.org/reports/apo2.cfm>

⁴ UNESCAP. 2006. *State of the Environment in Asia and the Pacific 2005. Synthesis: Economic Growth and Sustainability*. Bangkok: United Nations.

⁵ Radelet, Steven and Jeffrey Sachs. 1997. Asia's Reemergence. *Foreign Affairs* 76: 44–59.

⁶ Redclift, Michael. 1991. *Development and the Environmental Crisis. Red or Green Alternatives?* London: Routledge.

⁷ McMichael, A.J. 1993. *Planetary Overload: Global Environmental Change and the Health of the Human Species*. New York: Cambridge University Press.

warns that environmental degradation in the region is pervasive, accelerating and unabated, putting people's health and livelihood at risk (footnote 2). Likewise, Nicholas D. Kristof wrote:

It kills 3 million people each year, mostly children and the elderly, and yet it is scarcely noticed. It is the war between humans and the environment, and it is one that both sides are losing. The environment is one of the bleakest prizes through which to view Asia, for it is becoming a brake on development and a challenge to the rest of the world as well.⁸

These environmental consequences disproportionately impact the poor who depend on agriculture, lack access to safe and adequate water supplies, and live along roads and in industrial areas. In the Asia-Pacific region, approximately 670 million people live on less than US\$1 a day, more than one in every 10 persons is undernourished, and the per capita energy supply is less than 60% of that of the global figure (footnote 1). These issues demand urgent action for environmental conservation as well as further economic growth in the region, and raise the question "can economic growth and environmental conservation go together in the region?"

Economic Growth vs. Environmental Conservation

The relationship between economic growth and environmental conservation has been a source of great controversy for a long time.⁹ On the one hand, some scientists argue that growing economic activities (production and consumption) require increased extraction of natural resources and accumulation of waste, so a transition to a steady-state economy is required to save the environment.^{10, 11} On the other hand, there are those who argue that economic growth leads to an increased demand for less material intensive goods and services and improved environmental quality, so more attention will be paid to environmental protective measures.^{12, 13} Yet others have hypothesized an inverted-U relationship between economic growth and environmental degradation, which is known as the "Environmental Kuznets Curve (EKC)."¹⁴ The underlying hypothesis is that at the early stages of economic growth, pollution and degradation of natural resources increase rapidly, but beyond a certain threshold of growth, the relationship reverts and pollution declines.

The EKC suggests that countries can outgrow their economic problems by simply emphasizing their economic growth without paying special attention to the environment itself. Such a concept has been conveyed as the "grow first, clean up later" approach; however, it has some weaknesses (footnote 13). First, the downturn of the EKC depends not only on the economic growth but also on policy responsiveness to the growing demand for environmental quality, e.g., enactment of environmental legislation. Second, it may take decades for a low-income country to cross from the upward to the downward sloping part of the curve, so the accumulated damage in the meantime may far exceed the present value of higher future growth (footnote 13). Third, the height of the curve is determined largely by the efficiency of markets and policies. Where there are market or policy failures, the curve will be

⁸ Kristof, Nicholas D. 2000. The Filthy Earth. In *Thunder from the East: Portrait of a Rising Asia*, edited by Nicholas Kristof and Sheryl WuDunn. London: Nicholas Brealey Publishing.

⁹ Panayotu, Theo. 2003. Economic Growth and the Environment. *Economic Survey of Europe* 2: 45-67.

¹⁰ Meadows, Donella H., Dennis L. Meadows, Jorgen Randers, and William W. Behrens III. 1972. *The Limits to Growth*. London: Earth Island Limited.

¹¹ Daly, Herman. 1991. *Steady-State Economics*. Second Edition. Washington, DC: Island Press.

¹² Beckerman, Wilfred. 1992. Economic Growth and the Environment: Whose Growth? Whose Environment? *World Development* 20: 481-486.

¹³ Barlett, B. 1994. The High Cost of Turning Green. *The Wall Street Journal*, 14 September.

¹⁴ Kuznets, Simon. 1966. *Economic Growth and Structural Change and Modern Economic Growth*. New Haven: Yale University Press.

higher and it is more likely that critical ecological thresholds will be crossed and irreversible changes will occur. This, in turn, would impact the sustainability of economic growth itself.

Hence, it seems that economic growth and environmental conservation cannot go together. However, in the Asia-Pacific region, as the situation illustrates, much effort is needed to reduce poverty and meet the basic needs of its vast and expanding population as well as to reduce the environmental impact of its economic growth. Consequently, it is necessary to find ways to replace these conventional hypotheses with an integrated approach that enables economic growth to support and reinforce environmental sustainability. This has led to the concept of “sustainable development.”

Sustainable Development

The concept “sustainable development” first received global attention in 1987 when the Brundtland Report was published. The report defined sustainable development as:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.¹⁵

It was enriched at the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992,¹⁶ and reaffirmed at the 2002 World Summit on Sustainable Development held in Johannesburg.¹⁷ The concept is now widely accepted and includes three main domains - nature, economy and society - that must all develop but not at the expense of the others. The words “growth” and “development” need to be clarified here. Growth refers to quantitative change, e.g., economic growth of a country is generally measured by its Gross Domestic Product (GDP) or Gross National Product (GNP). Development, on the other hand, refers to qualitative change and combines economic growth with social equity, increased life-satisfaction from resource-sparing activities and the protection of ecosystems (footnote 7). Hence, “sustainable development” serves as a grand compromise between those who are concerned with nature and environment, those who value economic growth and those who are dedicated to improving the human condition.¹⁸ Under this concept, economic growth and environmental conservation seem to go together.

How can ‘Sustainable Development’ be achieved in the Asia-Pacific Region?

In the Asia-Pacific region, the challenges of shifting to a pathway of sustainable development are substantial and primarily related to market or policy failures. Market failures occur when firms fail to correctly account for the value of environmental goods and services.¹⁹ This may be because environmental goods are generally thought to be non-exclusive (i.e., those who do not pay cannot be excluded from consumption) or non-rival (i.e., one person’s consumption does not diminish the amount available to others). As a result, overuse of the resources does not incur any internal cost to the firm or individual, but rather an external cost to society. Policy failures occur when there is lack of political will and commitment to environmental protection, limited financing for environmental improvement,

¹⁵ Brundtland, Gro Harlem. 1987. *Our Common Future: World Commission on Environment and Development*. New York: Oxford University Press.

¹⁶ United Nations. 1992. *The Earth Summit: United Nations Conference on Environment and Development*. 3 – 14 June. Available: <http://www.un.org/geninfo/bp/enviro.html>.

¹⁷ United Nations. 2002. *Report of the World Summit on Sustainable Development*. New York; United Nations.

¹⁸ Kates, Robert W., Thomas M. Parris, and Anthony A. Leiserowitz. 2005. What is Sustainable Development? Goals, Indicators, Values, and Practice. *Environment* 47: 10-21. Available: http://www.findarticles.com/p/articles/mi_m1076/is_3_47/ai_n13656535

¹⁹ Asafu-Adjaye, John. 2004. *Integrating Economic and Environmental Policies: The Case of Pacific Island Countries*. Development Papers No. 25. Bangkok: UNESCAP.

continued dominance of sectoral approaches to policy making, and government's incentives for environmental goods and services, e.g., subsidies on pesticides, fertilizers, irrigation and energy (footnote 2 and 19). Although correcting these failures can yield major environmental benefits, the rate of adoption of new approaches has been slow and relatively uneven in the region, probably due to the concern that environmental improvements cannot be achieved without significant costs (footnote 2).

However, abundant opportunities exist for reducing environmental impact with positive, zero or small negative impacts on economic growth.²⁰ For example, the ADB identified six opportunities for intervention: (1) the widespread adoption of existing, proven policy approaches across a broad spectrum of activity, from population to water supply management; (2) new urban-industrial investment opportunities; (3) development and widespread deployment of new technologies; (4) advances in energy use and supply; (5) strengthening of the drivers of improved environmental performance through enhanced information availability and education, use of the courts, and resource pricing; and (6) enhanced governance and institutional reform (footnote 2). However, the effective utilization of these opportunities requires strong political will for policy integration, i.e., the creation of institutions, resources, and policy tools that allow economic actors to respond positively to pressure for enhanced environmental performance at lower economic and social costs (footnote 2). In order to facilitate this, the Fifth Ministerial Conference on Environment and Development in Asia and the Pacific, 2005, embraced the "Green Growth" approach (footnote 1). It is a policy-focused strategy to create a win-win situation between the environment and the economy by improving eco-efficiency of production and consumption and promoting effective decision-making. The "Green Growth" strategies have been adopted in some countries, e.g., the Fund for Conservation of Water Resources and Water Works was established in Japan in 1995 and used for forest conservation activities (footnote 20). Hence, effective strategies do exist to achieve sustainable development in the region, although the precise tools for implementing them may need to vary from one country to another, based on its economic, social and development context (footnote 1).

Conclusions

Economic growth in the Asia-Pacific region is at the crossroads. The rapid increases in industrial and agricultural production as well as the rising levels of consumption have resulted in degradation of the environment both in quantity and quality. Meanwhile, the benefits of this economic growth have not filtered down to all levels of society and about two-thirds of the world's poor live in the region. Given the limited environmental carrying capacity of the region as well as the enormous need for economic development, strategies are needed to harmonize the two imperatives of economic growth and environmental sustainability. A promising strategy to do so is based on the concept of sustainable development (footnote 15) - economically sustainable, environmentally sound and socially equitable development. Currently, many opportunities are available to shift to a different trajectory of sustainable development in the region (footnote 2). If these opportunities are catalyzed by strong political will to integrate environmental concerns into government policies and utilized by all stakeholders, we can say with confidence that economic growth and environmental conservation can go together in the region. As Paul Hawken said:

We have the capacity and ability to create a remarkably different economy, one that can restore ecosystems and protect the environment while bringing forth innovation, prosperity, meaningful work, and true security.²¹

²⁰ Asia-Pacific Forum for Environment and Development (APFED). 2004. *Final Report: Paradigm Shift towards Sustainability for Asia and the Pacific – Turning Challenges into Opportunities*. Tokyo: APFED.

²¹ Hawken Paul. 1993. *The Ecology of Commerce: A Declaration of Sustainability*. New York: Harper Collins.