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# Policy Forum 97-12: APEC: Promise or Peril in the Asia-Pacific?



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1996 APEC began to define regional sustainable development priorities and began developing a regional work program. In July, 1996 the Philippines government hosted a second "Sustainable Development Ministerial" which produced an "Action Programme" on three priority areas: 1) Sustainable Cities, 2) Clean Production/Clean Technology, and 3) Sustainability of the Marine Environment., "Policy Forum 97-12: APEC: Promise or Peril in the Asia-Pacific?", NAPSNet Policy Forum, June 10, 1997, <https://nautilus.org/napsnet/napsnet-policy-forum/apec-promise-or-peril-in-the-asia-pacific/>

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**"APEC: Promise or Peril in the Asia-Pacific?"\***  
(Ecological Economics Bulletin, *forthcoming*)

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## Introduction

This year, as Canada hosts the Asia Pacific Economic Cooperation (APEC) forum, Ministers from the world's eighteen most dynamic economies will convene to discuss issues ranging from environment to trade liberalization.<sup>(1)</sup> During the year's span of activity, another 300 plus meetings of mid-level bureaucrats, local municipality heads, non-governmental organizations and business leaders will take place to forge cooperation on a clutch of issues ranging from government procurement policy to destructive fishing practices. With this exposure, APEC is also coming under increasing public scrutiny as a source driving environmental degradation or, at the very least, not doing enough to promote more ecologically sensitive growth.

In the last quarter century, aggregate economic growth within the Asia-Pacific has been spectacular. Between 1991-94, the region sustained the highest growth rates in the world, averaging 7 percent, compared to the world economic growth rate of just 1.1 per cent.<sup>(2)</sup> The region's sustained economic growth, which, along with relatively high rates of social mobility, high education standards, and increases in national health care, has been instrumental in reducing poverty. This success has given rise to a 'quiet revolution' in macroeconomic policy in other regions of the world, leading other nations to embrace the liberal economic paradigm in hopes of recreating the "Asian Miracle."

Distressingly, the region's economic growth is matched only by the pace of ecological destruction. Rapid expansion of economic activity, high capital mobility, population growth, and market and policy failures have placed alarming pressures on the environment. The region's environmental stresses embody the worst of both rapid industrialization and of underdevelopment. (This analysis will focus primarily on the forum's largest and most dynamic area East and Southeast Asia.) Air and water pollution is several times higher than levels considered safe by the World Health Organization.<sup>(3)</sup> Water pollution threatens both the health and economic and ecological well-being of the region's coastal and marine environment. With 20 percent of the region's population lacking access to clean water, and less than 30 percent having access to sanitation services, pathogenic pollution continues to kill.<sup>(4)</sup> Land degradation due to agricultural conversion, erosion and soil depletion is the world's highest.<sup>(5)</sup> Deforestation of tropical timber also continues to be the world's highest at 11.1%, leading experts to predict that if the current rate of harvesting continues, timber reserves in Asia will not last more than 40 years.<sup>(6)</sup>

Promoting sustained economic growth while increasing environmental and natural resource management and protection will be the region's greatest challenge in the decades to come. As 70 percent of the region's trade is intraregional, a necessary component of this effort will be to make regional trade and environmental standards mutually supportive.<sup>(7)</sup> At the heart of these processes, as a regime with a dual agenda of economic and trade facilitation, and a burgeoning environmental cooperation effort, APEC is increasingly eyed as the region's Shiva: possessing both the powers of creation and destruction.

## APEC: Promise or Peril in the Asia-Pacific?

As the region's leading multilateral economic framework, APEC, in particular its trade and investment liberalization agenda, is cited by critics as an engine for environmental degradation. Environmentalists contend that APEC's free trade agenda is facilitating a myriad of environmental problems, from the migration of "dirty" industries into the region, to promoting un-restrained consumption and natural resource extraction.

This scenario, however, may be giving APEC too much credit. Although environmental degradation is continuing at a phenomenal rate within the region, APEC's role in promoting free trade, and as the argument goes, environmental destruction, is marginal and largely an afterthought to the unilateral, bilateral and global efforts to open markets in the region. Despite the United States' push for rapid across-the-board liberalization, the Asian members of APEC have adopted a stance of maintaining the status quo: a mixed approach of selective liberalization, export promotion industrial policy, and neo-liberal ideology, tailored to their specific domestic economic and political needs.

Similarly, investment liberalization has occurred largely unilaterally or through strong bilateral pressures, outside of APEC's incentive structure and operational guidelines.<sup>(8)</sup> Most APEC countries have preferred to adjust investment liberalization gradually, in step with changing competition for foreign direct investment (FDI), but only at their own pace and in favor of industries of comparative advantage. Furthermore, even under binding circumstances, which APEC agreements are not, the forum's trade liberalization agenda has not exceeded agreements previously made under the GATT and WTO. In this light, APEC's role as a catalyst for regional economic growth and trade liberalization is marginal at best.

Given APEC's low value-added to regional economic and trade liberalization efforts, an analysis of its impact on the environment rests upon its *potential* peril - i.e., to facilitate ecologically-blind economic growth and trade integration - and its *potential* promise in promoting effective regional environmental cooperation to mitigate further environmental harm. This function is dependent on two key factors: 1) if APEC is to be a source of greater economic and trade integration, what is the relationship between trade and economic policy decisions and environmental degradation within the APEC region; and 2) with APEC's burgeoning sustainable development agenda is to continue, what is its potential role in mitigating this environmental harm.

This article will explore these two functions of APEC's relationship to environmental degradation within the Asia-Pacific, give an overview of APEC's institutional structure and two track agenda, and finally look for ways APEC can reconcile the often competing agendas found under its purview.

## **Asia Pacific Economic Cooperation**

APEC was founded in 1989 as a joint Australia/Japan initiative to facilitate growing economic interdependence within the region. Today APEC has emerged as the leading multilateral framework for promoting its two track agenda of free trade and economic cooperation in the Asia-Pacific. Driving APEC's dynamic development is its loose, consensus-based, non-institutional approach to policy coordination. Unique in structure and in scope, APEC has rejected a legalistic approach to multilateralism in favor of a framework based on reciprocity, flexibility, and mutual benefits. Focusing on collective design of broad agendas while leaving specific implementation to national design, APEC has managed the vast political, social and economic spectrum of its members to foster cooperation on issues ranging from toy safety standards to coral reef protection.<sup>(9)</sup>

Institutionally APEC functions within three tiers of diplomatic cooperation. The first tier is based in ten "working groups" - which are akin to a consortium of mid-level national bureaucracies - working on the "nuts and bolts" issues of the economic cooperation track. The working groups, ranging from Human Resource Development to Marine Resource Conservation, are the most active yet least

known component of APEC.<sup>(10)</sup> The committee level constitutes the second tier of policy coordination. The three committees, which have broader mandates and greater institutional flexibility than the working groups, are the Budget and Administrative Committee, the Economic Committee, and the Committee on Trade and Investment. The committees also employ a number of smaller task forces to fulfill their mandate.

At the top, in the third tier, developing APEC's broader agenda, are the Ministerial meetings. Held annually, traditionally in November and hosted by the current year's Chair, Ministerial meetings of trade and finance ministers are the highest form of "official" discourse between APEC members. It is within these meetings where the committees and working groups report on their efforts, assessments on APEC's progress are made, and the following year's agenda is set. Other ministerial meetings, on issues ranging from trade to environment, take place at the Chair's discretion (APEC's chair rotates between members annually).

Despite the Ministerial track's authority, since its introduction in 1993, the annual "unofficial" Leaders' Summits have captured APEC's political octane and leadership role. These meetings, held largely in private, free of political oversight and bureaucratic synergies, develop APEC's broader agenda as detailed in the *Leaders' Declaration*. These pledges, akin to international environmental agreements, often go beyond the political and economic scope of its members to fulfill. However, Leaders' Summits give shape to APEC's larger process, create an atmosphere of good-will and commitment, and most importantly, bring member countries back every year.

## **APEC and Free Trade**

APEC is best described as a "club of winners."<sup>(11)</sup> Its roster includes two of the world's three largest industrial economies, Japan and the United States; two of the world's most populous and rapidly developing nations, China and Indonesia; and some of the most successful newly industrialized economies, including Singapore, Chile, Hong Kong, and Malaysia. In the past decade, the value of trade in the region rose from US\$2.4 trillion to more than \$6 trillion, with foreign direct investment quadrupling during the period to almost \$300 billion; economic growth has increased by a yearly average of 7% since the mid-1970s, reaching 9% in the 1990s; East Asian economies now account for one quarter of the world's gross domestic product compared with one-sixth a decade ago, and if the current trends continues, it is estimated that the region could account for one-third of the world output by the year 2005.<sup>(12)</sup>

In an attempt to capitalize on this success, the United States launched the APEC free trade agenda in 1993. Facing stalled talks in both GATT and NAFTA, increasing European competition for Asian markets, and a booming trade deficit with APEC's 10 Asian countries, the United States catalyzed the APEC free trade agenda during the first Leaders' Summit in Blake Island, Washington.

<sup>(13)</sup>

From Blake Island in 1993 to Manila in 1996, the trade and investment liberalization track has come to the forefront of the Ministerial and Leaders' efforts: the next year leaders agreed to "free trade" within the Asia-Pacific by 2020; by 1995 the Individual Action Plans (IAP) on liberalization were set forth; and in 1996 members reported on their IAPs and honed in on the "implementation phase of APEC's open trade and investment agenda".

Beyond the grand visions of free trade within the region, the trade and investment liberalization agenda appears to be more show than substance. The 1994 Bogor Agreement's text was later amended to be "non-binding and aspirational in nature;" the Osaka agenda was captured almost entirely by the development/economic cooperation platform; the following year, the IAP framework was rendered inoperative as many countries submitted vague, nondescript plans of

liberalization.<sup>(14)</sup> Moreover, on the whole, APEC's efforts and subsequent plans of action for liberalization have been unwilling, or unable, to press beyond those already made within the GATT and WTO.

## **Economic/Environmental Cooperation**

In comparison, APEC's second track, economic and technical cooperation (Eco-tech), supported by the majority, mostly developing, APEC members, has plodded along at a quiet yet consistent trajectory in defining regional economic cooperation. Considered by some as APEC's "organic mandate," the Eco-tech agenda seeks to promote economic development, institutional capacity-building, and environmental cooperation. In pursuit of this goal APEC has enlisted efforts of the ten working groups and the economic committee to promote economic growth focusing on joint research, data and information sharing, training programs, technical demonstrations, exchange of experts, technology sharing and transfer, and the establishment of research and business networks.<sup>(15)</sup>

APEC defines its goals of Economic and Technical Cooperation as: 1) achieving sustainable growth and equitable development in the region; 2) reducing economic disparities among APEC economies; 3) improving the economic and social well-being of the people; and 4) building an Asia-Pacific community under the spirit of openness.<sup>(16)</sup>

The Eco-tech track has become the bread and butter of APEC. Similarly, under the aegis of the economic cooperation track, APEC has embarked on an effort to address environmental concerns under the aegis of a burgeoning sustainable development initiative.

This is the promise of APEC. Environmental issues have been discussed at APEC since its inception in 1989 when Ministers agreed to address energy, fisheries and marine pollution issues. From this point on, momentum on environmental issues has increased exponentially within the working groups and Economic Committee and are now expanding into cross-cutting issues within a broader APEC sustainable development agenda.

This broader agenda began in 1993 as Leaders' called for the "Greening of APEC" and launched the "Sustainable Development Dialogue". The following year APEC Environment Ministers met and produced an *Environmental Vision Statement* and a *Framework of Principles for Integrating Economy and Environment*. In 1995, Leaders directed working groups and committees to report annually on their efforts in sustainable development initiatives, and specifically directed the Economic Committee to consider cross-cutting issues in an initiative entitled "FEEEP" (Food, Energy, Environment, Economic Growth, and Population).

By 1996 APEC began to define *regional* sustainable development priorities and began developing a regional work program. In July, 1996 the Philippines government hosted a second "Sustainable Development Ministerial" which produced an "Action Programme" on three priority areas: 1) *Sustainable Cities*, 2) *Clean Production/Clean Technology*, and 3) *Sustainability of the Marine Environment*.

Similar to the trade and investment liberalization agenda and championed by the same countries, APEC's environmentally minded members have taken advantage of APEC's loose structure and political vacuity to develop a far-reaching sustainable development agenda. Focusing on building environmental management capacities rather than defining rules and procedures for trade sanctions, the combined capacity-building functions of the economic track and the burgeoning sustainable development initiative have the potentiality to overcome the North - South tensions which have characterized other environmental cooperation fora. In the future, APEC has the

potential institutional capacity to address the nexus of interrelated trade, economic, technical cooperation, and sustainable development issues. In this light, it can be argued that it is the only regime which has, at least in mandate and vision, attempted to address the "Rio bargain".

Despite these grand visions and optimistic agendas, today the APEC environment agenda is mired in a state of malaise as it struggles to develop a sense of purpose and direction. Beyond the gains made in norm- and capacity- building within working group efforts, APEC's broader sustainable development agenda has had little to show in terms of implementation or improvements in environmental performance.

The stakes are high. As APEC's sustainable development agenda continues to struggle for direction, environmental destruction within the region continues as rapid economic growth places a substantial array of pressures on the region's environment and health of its population. These pressures are particularly acute in the Asia Pacific given the region's sensitive terms of trade, limited government capacity, export sector makeup, population growth, and natural resource stocks.

If APEC is to effectively meet the region's environmental challenges it must move beyond the constrained functional targets of its sustainable development agenda (cities, industrial ecology, marine) and focus on the complex interrelationship between economic incentives defined by the region's trade and economic policies, and environmental degradation. Understanding this relationship is imperative.

### **Free Trade, APEC, and the Environment**

Despite its faltering start, as a young institution, with ever increasing activity and potential members, APEC is still a potentially potent economic regime. In this light, to better understand APEC's potential effects on the region's environment it is necessary to examine the complex relationship between trade, economic policy, and environmental degradation in the Asia-Pacific.

As the source of greatest concern to environmentalists, the interface between trade liberalization and environmental degradation in the Asia-Pacific is a key component in understanding APEC's relationship to environmental degradation.

To date, APEC's trade liberalization agenda has faltered as the United States' oversimplified push for trade liberalization as a simple recipe for economic growth has smacked headlong into the complex interrelationships defining the region's economic realpolitik. Similarly, the assumption that trade liberalization alone is the source of the region's environmental ills may also be an all too simplistic assessment. While there is strong anecdotal evidence suggesting that liberal trade and investment policy facilitates environmental degradation, current analysis is inconclusive and suggests that there may in fact be both positive and negative effects to environmental performance.

Presently, knowledge on the relationship between industrial, trade and environmental policy in the Asia-Pacific is at best allegorical. However, in examining the export manufacturing sector in Southeast Asia, proto-indicators appear to suggest a causal link between trade, industrial processes, and environmental degradation. Driven by energy- and water- intensive fossil fuel-fired industries, the region's export-oriented industrial sector is posing a serious threat to the region's water, air, land and health of its population. In Southeast Asia alone, the number of "dirty industries" rose from 3.4 per cent in 1965 to 8.4 per cent of the world's total in 1988.<sup>(17)</sup> In Thailand, hazardous waste-generating industries accounted for 58 percent of industrial GDP in 1989, up from only 29 percent in 1979.<sup>(18)</sup> In Indonesia, manufacturing output has doubled in volume every 6-7 years during the 1970s and 1980s and is projected by the World Bank to expand another 13-fold by the year 2020.<sup>(19)</sup>



At the source of this production is energy- and resource-intensive small to medium enterprises (SMEs), which are the region's largest producers of export goods and are also the least efficient. Incentives for SMEs to increase environmental performance are restricted as most inter-regional trade has, as the largest share of their market, a limited demand for environmentally friendly products. External pressures also stifle efficiency gains as the traditional price-taker position of developing countries makes cost increases critical. Finally, as voluntary industry standards for environmental management (such as ISO 14,000) are increasingly being promoted by Asian governments in lieu of regulations, SMEs are unable to meet the capital and allocation costs associated with compliance.<sup>(20)</sup>

However, contrary to this trend, recent studies - from other regions - suggest that there is little evidence to support the theory that industries relocate in order to avoid the costs of pollution abatement. This is due to, as the studies conclude, the low ratio of pollution abatement costs to the higher value-added in sales.<sup>(21)</sup> There is also growing evidence that openness may have several positive effects on environmental quality in this sector. Recent studies have shown that international market demand for "green" products (products with lower environmental inputs), while still small but clearly rising, may have upward pressure on environmental performance in Asia.<sup>(22)</sup> With further development in the region, and subsequent rising consumer preferences for green products, this effect is expected to increase proportionally to regional economic growth. Furthermore, it is argued that investment liberalization will promote the inflow of technology and investment from developed countries, which are likely to be more efficient and greener than their indigenous counterparts. This process is clearly underway within APEC.

### **Economic Growth and Environmental Management Capacity**

In the absence of a direct and conclusive relationship between open trade policies and environmental degradation, and given the panoply of domestic approaches to growth in the region, APEC's potential effects on the environment are better understood through the prism of national responses to economic growth, trade liberalization, and environmental management.

Examples of the direct relationship between the expansion of economic/human activity and its proportional and cumulative effect on the environment can be referenced throughout the history of humankind. Today, with larger populations, higher transportation densities, and greater consumption and resource-intensive lifestyles, human activity's impact on the natural environment is profound. Historically, in-step with environmental degradation, societies have responded to this impact with efforts to capture the economic and environmental costs, and preserve the future sustainability of the species through social organization. However, these responses, today couched in environmental regulatory systems, have almost universally not met the increases in environmental harms. Nowhere in the world is this scenario more prevalent than in Asia.

With its potential ability to foster greater economic growth, via trade liberalization or otherwise, without raising regional environmental standards, APEC has the potential to facilitate widespread environmental degradation in Asia. APEC's unique style of policy implementation, "concerted unilateralism," relies upon its members to implement APEC goals unilaterally, for their own good, driven by multilateral peer pressure. Historically, regimes have provided incentives for cooperation by lowering the costs of unilateral action by undertaking efforts multilaterally. Multilateralism provides rewards for cooperation and punishment for noncompliance, and most importantly, builds capacities in its less powerful, yet integral, members. APEC does not explicitly fulfill this function, nor is it likely to in the future. Without effective institutional environmental capacity-building, this reliance on governments, who have neither the capacity nor the incentives to capture the massive environmental externalities associated with rapid economic growth, will undoubtedly have tremendous effects on the region's environment.

Without supra-national cooperation, national environmental capacity will continue to rise, as evidenced throughout Asia today. However, the speed and associated pressures of liberalization and market competition, also prominent within the region, will be far greater than the government's ability to deal with them. This concern is centered within the downward pressures and constraints the global economy places on domestic environmental management choices. Even today, APEC's members are experiencing an environmental "regulatory and implementation chill" as the costs of becoming priced out of export markets or becoming unattractive to foreign investment outweigh the benefits of unilaterally internalizing environmental costs, thereby creating incentives to bear the long term burden of environmental degradation and natural resource extraction in favor of short-term market share and FDI enticement.

Therefore, simply stated, APEC's effect on the region's environment is the facilitation of rapid economic growth without effective pricing and regulatory structures to internalize the associated pressures that economic growth has on the environment.

These severe pressures, however, are not completely lost within policy formulation initiatives in APEC today. As outlined above, since 1991 APEC has embarked on an environmental agenda in an attempt to redress some of these negative environmental impacts of regional integration. Focusing on issues ranging from marine conservation to sustainable tourism, the agenda has been a useful vehicle for promoting regional norm- and capacity- building on environmental issues. Over time, driven by member needs, this agenda has broadened, and since 1995, APEC has struggled to forge a broader sustainable development agenda. De-linked from APEC's economic agenda from the start, the sustainable development agenda has developed slowly into a tripartite agenda of *clean technology*, *sustainable cities*, and "*clean pacific*" initiative. Unfortunately, similar to the trade liberalization agenda, the sustainable development agenda has suffered from myopic agenda-setting, the concentration of political will within a few members, limited consensus, and an uncertain future. Given its current lassitude and as an ad-hoc non-official process within APEC, the sustainable development agenda is threatened. The coming year will be crucial to the future of this agenda as APEC's "pro-environment members" race to develop an institutional home for sustainable development prior to the chairing in 1998 of Malaysia, who is expected to drop the sustainable development agenda.

Regardless of whether APEC will continue to be responsible for, or just an afterthought to, regional economic growth and integration, it is nonetheless a regime which has the capacity to promote sustainable development yet has not to date effectively addressed the environmental challenges ahead. Furthermore, APEC continues to provide the incentives for and facilitate policies to further increase economic growth via trade and investment liberalization in the absence of effective local, national and regional environmental policies. In this light, APEC's agenda will be an impediment to sustainable development in the region unless environmental management capacities and policies are profoundly integrated with economic issues.

### **The Future of the Region's Environment?**

As evidenced in its attempts to develop a trade liberalization and sustainable development agenda for the Asia-Pacific, APEC's efforts to manage the world's most dynamic economic region is akin to a fly holding on to the tail of a dragon. Despite its efforts within its first eight years, comprehensive regional cooperation has eluded APEC in terms of defining both regional approaches to economic cooperation and trade liberalization and environmental protection. However, as we've seen, APEC has the potential to becoming a viable economic force within the region. As this analysis has shown, through its potential role in expanding economic activity through trade liberalization, without commensurate increases in environmental management capacities, APEC has the ability to exacerbate an already critical environmental situation.



However, if APEC is to continue with its development of a sustainable development agenda, it may play a decisive role in meeting the region's environmental challenges. To do so, via APEC or otherwise, the region must address the following:

- **Integrate economic and environmental goals:** early on in APEC's environmental initiative it had chosen to de-link environmental and economic agendas. While being beneficial in gaining progress on the environmental agenda by de-politicizing the issues, this approach has not been able to effectively address the driving forces of environmental destruction within the region.
- **Develop capacity at the national level:** as outlined above, national environmental management capacities are at the center of the region's environmental challenges. APEC needs to broaden its role as a capacity-building agent by expanding its efforts away from its myopic ad-hoc efforts today, into a broader environmental management effort.
- **Capitalize on benefits of regional cooperation:** As processes of globalization are largely regional, responses to its effects should also be regional. The region's common historical, social and linguistic backgrounds, should be utilized in building the necessary trust and spirit of community necessary for effective international environmental cooperation.
- **Focus on "win-win" issues that it can successfully tackle today:** beyond these long-term goals, it's important for APEC to focus on efforts which it can achieve today having both positive environmental and economic effects. For example, these efforts could target negative environmental subsidies, such as agriculture, water, energy, or on the reduction of barriers to trade in clean technologies.

At the end of the century, APEC stands as the only institution at the crossroads of the Asia-Pacific's economic and environmental future. If it is to emerge as an effective force for policy coordination in the region, APEC must effectively address the mutually supporting goals of both environmental and economic cooperation and coordination. Not fulfilling this requirement has been APEC's Achilles heel, thus far inhibiting progress on either front. 1997 will prove to be critical in answering this question as both the sustainable development and trade liberalization initiatives face a critical mass within their development. Defining a mutually supportive and integrated agenda is the region's biggest challenge.

### The Nautilus Institute Invites Your Responses

You are invited to participate in this "virtual forum" by considering the questions below, or collecting any other thoughts you have after reading the paper, and then emailing your comments to: [aprenet@nautilus.org](mailto:aprenet@nautilus.org). The Nautilus Institute will review responses and post selections to this web site.

1. Do you disagree with this analysis? Has APEC, to date, contributed to environmental degradation in the Asia-Pacific Region?
2. It is argued that 'de-linking' the environment and economic agendas in APEC served to weaken efforts to raise environmental standards in the Asia-Pacific region. How would maintaining this link have changed the current situation in

APEC and the region in general?

3. How should APEC build domestic-level environmental management capacities? Is this APEC's 'value-added' in regional environmental cooperation? What institutional options are viable given the current political climate in APEC?

4. What methods exist, other than further institutional development of APEC, to ensure effective environmental management? Will regulatory structures ever be instituted within APEC? If not, where could they be?

## Notes

\* This article is based on "Environmental Cooperation at APEC: The First Five Years," Lyuba Zarsky and Jason Hunter, *Journal of Environment and Development*, Vol. 6 No.3 (Special Issue, September 1997).

(1) APEC members include: Australia, Brunei Darussalam, Canada, Chile, People's Republic of China, Hong Kong, Indonesia, Japan, Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Republic of the Philippines, Singapore, Chinese Taipei (Taiwan), Thailand, United States.

(2) Asia Pacific Regional Economic Cooperation, Economic Committee, 1996 Economic and Technical Cooperation Report, 1996.

(3) Tasman Institute, APEC and the Environment, unpublished paper, Australian APEC Study Center, 1996.

(4) UNEP, Table 2.5.

(5) Ibid., 42.

(6) FAO/RAPA Selected Indicators of Food and Agricultural Development in Asia and Pacific Region 1983-1990, 1993, 26.

(7) International Monetary Fund, Direction of Trade Statistics, 1995.

(8) Mari Pangetsu Bijit Bora, "Evolution of Liberalization Policies Affecting Investment Flows in the Asia Pacific," Pacific Economic Cooperation Council (PECC) Discussion Paper, 1995, 26.

(9) APEC's ten working groups: Fisheries, Industrial Science and Technology, Human Resources Development, Regional Energy Cooperation, Marine Resource Conservation, Telecommunications, Transportation, Trade and Investment Data Review, Trade Promotion, and Tourism.

(10)

(11) Lyuba Zarsky and Jason Hunter, "Environmental Cooperation at APEC: The First Five Years," *Journal of Environment and Development*, Vol. 6 No.3 (fall 1997): forthcoming.

(12) Bangkok Post (Bangkok), 26 March 1997.

(13) Walden Bello and Nicola Bullard, APEC and the Environment: A Report to the Rio+5 Conference

(Bangkok: Focus on the Global South, March 1997), 7.

(14) Ibid., 7.

(15) APEC, 1996 Economic and Technical Cooperation Report, 2.

(16) Ibid., pg. 2.

(17) UNEP, 55.

(18) D. Reed, Structural Adjustment, the Environment and Sustainable Development, (London: Earthscan, 1992), 113.

(19) World Bank, Indonesia Environment and Development: Challenges for the Future, 1993, No. 12083-IND., 74.

(20) For a detailed discussion of ISO 14,000 and APEC see Naomi Roht-Arriaza "ISO 14,001 in the APEC Context: Uses, Limitations and Policy Alternatives," Journal of Environment and Development, Vol. 6 No. 3 (fall 1997).

(21) See Daniel C. Esty "Environmental Regulation and Competitiveness: Theory and Practice," in Simon S.C. Tay and Daniel C. Esty (eds.) Asian Dragons and Green Trade, (Singapore: Times Academic Press), 33-48.

(22) Rock M.T. (1996). "Industry and the Environment in Ten Asian Countries: Synthesis Report of US-AEP Country Assessment," (Washington: U.S-Asia Environmental Partnership, October 1996), 4.

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