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<td><strong>Author(s)</strong></td>
<td>Gautam S. Kaji.</td>
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Partnership For Environmentally Sound Development

By

Gautam S Kaji
"PARTNERSHIP FOR ENVIRONMENTALLY SOUND DEVELOPMENT"

AN ADDRESS BY
GAUTAM S. KAJI, VICE PRESIDENT
EAST ASIA AND PACIFIC REGION
THE WORLD BANK

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ABSTRACT

The developing economies of East Asia are known justifiably as the architects of an economic miracle. In contrast to this record of economic achievement are the serious environmental problems in East Asia. The damage in some cities is so far advanced, and actions to address them so far behind that only a pathbreaking partnership between government and the private sector has a chance of reigniting in the accumulating degradation of the region's productive environment.

Some of the environmental changes associated with East Asia's rapid growth can be strongly positive for socio-economic welfare, such as access to sanitation facilities and safe drinking water. But it is also evident that when urban environmental policies lag behind, pollution, congestion, waste generation and resource depletion can increase astronomically. There are a number of indicators of this unfavorable trend in East Asia, including growth of motor vehicle fleets, increasing levels of air pollution, contamination of surface water and depletion of groundwater supplies.

East Asia's problems are severe, but they are amendable to effective action. East Asia has an opportunity to leapfrog some of the less effective approaches used elsewhere and avoid costly mistakes.

To do that, East Asia's policy makers will need to take bold action and discard approaches that will set back progress, waste precious resources, alienate those who should collaborate, and exert little impact on the problem. Some of these counterproductive approaches include, for example, slowing economic growth. Slowing economic growth is a very poor substitute for targeting the polluters themselves, the source of the problem. A second mistaken approach is to establish a "punitive regulatory regime" aimed at over-controlling industrial enterprises. Experience has shown that if regulations and penalties are onerous they will be avoided. The third pitfall is ignoring the economics of environmental costs and benefits. Here the danger is in the quest for greener paths to development, calculations of economic and environmental costs and benefits are overwhelmed by an emotional debate on a specific environmental danger. So instead of a comprehensive view of the full set of trade-offs involved, a perfectly sound project, both economically and environmentally, becomes suspect.
Policies for Environmentally Sound Development

In place of such missteps a number of public policy choices can reconcile environmental quality and economic growth. These should be put at the top of any list for environmentally sound development because their economic costs are clearly less than their economic and environmental benefits. Most of these highly desirable choices concern pricing policy and the provision of basic services, such as water and sanitation.

Water supply in East Asia may well be the crisis issue of the next century. The economic dynamism of the region and its growing urban population are combining to place unsustainable demands on groundwater supplies while surface water sources are increasingly polluted. Infrastructure must be expanded, and surface water supplies must be cleaned up to assure economical supplies.

As for pricing policy, subsidies in energy and agricultural input pricing result in over consumption of these resources and additional pollution. In addition to correcting price distortions, taxes on certain economic activities are needed to bring public and private costs in line with each other. Whether it is an industry discharging waste into rivers and ground water supplies, or a power utility polluting the atmosphere, taxes on the sources of pollution can be designed to yield environmental and social benefits. The convergence of good environmental policy and economic policy extends to trade issues. There is strong evidence that a more open economy is able to develop cleaner production processes more readily than a closed protected economy.

Trade Offs and Public-Private Partnership

Those are the ways in which good economic policies can address environmental concerns. But environmental improvement is not costless. There are trade-offs between economic growth and environmental quality, and by far the best way to manage trade-offs and cost sharing will be to forge a partnership between government and the private sector.

Forging such a partnership rests on concrete collaborative initiatives. One of the more promising applications of the partnership principle is building a consensus on realistic standards and guidelines with the participation of industry groups. Private business can also play an important role in self compliance, monitoring and implementation of anti-pollution programs. A third area is technological innovation and adaptation. Using the same policy tools employed in East Asia to facilitate the acquisition of competitive industrial technologies, government and business can work together to stimulate the adoption of cleaner technologies for energy production, manufacturing processes and recycling of industrial wastes. Another example of partnership is environmental audits, which could be integrated with government programs in developing countries by a broad selection of firms.

Expanding the Partnership

The most successful developing countries in the world have before them critical choices if they are to show the way toward environmentally sound
development. Economic policies that generate powerful benefits for the environment and the economy are the first priority. In the second tier of the agenda, policymakers in partnership with business must delve into the thicket of uncertainties and trade-offs. Other participants must be mobilized as well. Environmental advocates and NGOs, who are in many ways the guardians of the debate on environmental quality, must continue to keep the pressure on, scrutinize proposals and propose their own. Their participation will add much to the content of debates on these questions, particularly if all begin speaking in the same language on priorities and choices.

The World Bank can also contribute to building a public-private partnership. The Bank has come a long way over the last five years in developing its environmental program and the expertise to carry it out. This year the Bank's core environment projects will rise to about 15 per cent of total East Asia lending, and next year the proportion should go up again to about 20 per cent. Over a four-year period, the World Bank plans to support about 40 such projects in East Asia with a total value of $4.3 billion.

East Asian development will increasingly be defined by environmental needs. The World Bank should be at the forefront of policy and technical innovation. So in addition to assistance for the more traditional mainstays of sustainable development, the World Bank will be ready to support, technically and financially, efforts by our borrowers in East Asia to convert the principle of partnership into concrete, viable programs of action. These would include:

* realigning private with public costs of environmental degradation through more accurate and targeted pricing of pollution, depletion and degradation of the environment;
* building institutional capacity to manage an effective public-private partnership;
* facilitating technological adaptation and innovation;
* promoting new approaches to inner city transport problems so as to improve the productivity and liveability of Asia's cities;
* marshalling sources of finance to support hazardous waste clean up activities and some cases of industrial retrofit;
* exploring alternative energy technologies that promise gains in efficiency and lower pollution; and
* introducing pilot programs that include innovative self-compliance mechanisms such as environmental audits and waste disposal funds.

This is as much a challenge for the Bank as it is for our member countries. It will be a rewarding effort, indeed, if this group of dynamic countries in East Asia can show the way once again, this time toward a new partnership for environmentally sound development.

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The developing economies of East Asia are known justifiably as the architects of an economic miracle. With rapid growth has come vastly improved living standards and poverty reduction that are the envy of the developing world. The economic policies that were so critical to managing this performance are now recognized worldwide as the "East Asian paradigm" of development, widely cited but not often replicated.

In contrast to this record of economic achievement are the serious environmental problems in East Asia. Heavily affected are its cities. The damage in some cities is so far advanced, and actions to address them so far behind that only a pathbreaking partnership between government and the private sector has a chance of reigning in the accumulating degradation of the region's productive environment. How East Asian economies deal with this challenge will to a large extent determine their quality of life in the next century.

Why do the world's most vibrant economies confront such threatening levels of environmental degradation? In part, they are victims of their own economic success. And, like many other developing countries, their ability to prevent and limit environmental damage has not kept pace with the growing waste and pollution. No other group of developing economies has achieved more economically and has more to lose from failing to deal decisively with environmental damage. The mandate is clear.

The key to sustaining East Asia's success is the pursuit of environmentally sound growth. This calls for timely decisions that join growth objectives with a sound environment. East Asia has demonstrated its global leadership when it came to economic adjustment, and it now must do so with respect to environmental policy. The critical ingredient for this -- and the main message of my presentation -- is the quality of partnership between the private and public sectors in making this happen. My underlying premise is that good environmental policy is good economic policy.

Today's environmental problems cover a wide spectrum of areas: air pollution, degradation of water supplies, depletion of soils, forests and other renewable resources - the list is a long one. But rather than attempt a comprehensive coverage of all the issues, today I want to limit my remarks to the environmental challenge in East Asia's cities, where many of you are grappling directly with these issues. This urban emphasis in no way diminishes the importance of rural environmental problems involving soils, forests, and wildlife. But let me hold those aside for another day.

Before we approach the daunting task of building a consensus for environmentally sound development, we need to recognize the seriousness of East Asia's environmental degradation. So, let me begin with an overview of this problem.
East Asia's Environmental Setting

The most distinctive economic feature of the Asian setting is the unprecedented growth rates set over the last generation, and the prominent role of industry, particularly manufacturing, in fueling that growth. Consider, that during the 1980s, a decade considered "lost" for most of the developing world, East Asia averaged almost 13 per cent annual growth in manufactured output.

Some of the environmental changes associated with such rapid growth can be strongly positive for socio-economic welfare, as argued in our forthcoming World Development Report. For example, access to sanitation facilities increases quite predictably with growth; and in most cases, safe drinking water is an environmental benefit of growth. This has been amply demonstrated in East Asia where health promoting services have dramatically improved. Today more than 70 per cent of the region's urban population, enjoy access to safe water and sanitation. In Korea and Malaysia, this has reached almost 100 per cent.

But it is also evident that when urban environmental policies lag behind, pollution, congestion, waste generation and resource depletion can increase astronomically with a 10 percent annual economic growth rate. There are a number of indicators of this trend in East Asia:

* Motor vehicle fleets are growing very rapidly, almost a 35 per cent increase from 1983 to 1986. Thailand's fleet grew by more than that in 1990 alone. The impact on air quality from vehicles and from industrial and energy sources has been dramatic.

* Ambient levels of particulate matter exceed the WHO standard on 100 days or more per year in Jakarta, Bangkok, and China's larger cities compared to under ten days in most developed countries. The health implications of particulate pollution are quite serious for infants and children.

* Sulfur dioxide air pollution follows similar patterns with some Asian cities exceeding WHO standards over 50 days per year. These measures for SO2 and particulates are among the highest in the developing world.

* Heavy metal and organic wastes in East Asian rivers have registered levels well above accepted standards. The Chao Phraya River, as many of you know, has experienced anaerobic (essentially lifeless) conditions for some time due to excessive levels of organic waste. Thirteen out of fifteen river sections flowing past cities in China are seriously polluted. Concentrations of heavy metals
in industrial waste has contaminated the heavily fished coastal waters in China, Indonesia and Thailand. The Klang River in Malaysia is heavily polluted with industrial wastes.

Groundwater sources are under heavy pressure from overuse and from pollutants seeping in from surface water. Jakarta has so overused its groundwater that salt water intrusion has now contaminated shallow wells in a five to ten kilometer wide belt along the coast.

Under such conditions, environmental concerns can take on an apocalyptic tone. East Asia's problems are severe, but they are amenable to effective action. The principal reason why pollution levels have reached such alarming levels is not their inevitability, but the weak capacity to prevent and limit them.

Thailand and other countries are taking up the challenge of upgrading institutional capacities to monitor and enforce environmental standards, but across Asia the process of fortifying government's ability to manage pollution is in its infancy. Many of the environmental projects the World Bank expects to finance in East Asia over the next few years are aimed at building institutional capacity to deal with urban and industrial problems. Our operational pipeline currently contains five such projects in China, two in Indonesia, and one each in the Philippines, Thailand, and Papua New Guinea. East Asia has an opportunity to leapfrog some of the less effective approaches used elsewhere and avoid costly mistakes.

Avoiding Pitfalls in Environmental Policy

To do that, East Asia's policy makers will need to take decisive action and implement successfully, much in the same mold as the prudent and timely decision-making that has so distinguished economic policy in this region. But the pursuit of a clean environment arouses passion and interests like few other public policy issues. It is also an exceedingly complex undertaking aimed at a mosaic of causation. Some proposed solutions, as experience elsewhere has demonstrated, will set back progress, waste precious resources, alienate those who should collaborate, and exert little impact on the problem. So, let me now mention just a few of the approaches I would not recommend:

I. "Slowing economic growth" is the first. It is a seductive but fundamentally wrong reaction to the problem of industrial and urban pollution. No one can deny that there are trade-offs between growth and aspects of environmental quality. But blaming or slowing economic growth is a very poor substitute for targeting the polluters themselves, the source of the problem. With a growth rate of over 7 per cent per year over the past three decades, East Asia has made
more progress than any other region in reducing poverty and all its attendant environmental ills. Slowing growth would hurt polluters and non-polluters alike, and would fall most heavily on the poor.

II. A second approach I would not favor is to establish a "punitive regulatory regime" aimed at over-controlling industrial enterprises. Polluters should certainly pay, but experience has shown that if penalties are prohibitive, they will be avoided. If regulations are onerous, they will not be observed. If enforcement is unfair, it will be litigated. And the spirit of collaboration that is so crucial to successful industrial clean up will be replaced by contention and a possible souring of the investment climate. This is simply not necessary. Business can and will pay for the pollution it creates, and to undertake investments in cleaner technology, so long as the overall business environment remains positive, and if governments develop the capacity to fairly administer regulatory programs.

III. The third pitfall is ignoring the economics of environmental costs and benefits. Here the danger is that in the quest for greener paths to development, calculations of economic and environmental costs and benefits are overwhelmed by an emotional debate on a specific environmental danger. So instead of a comprehensive view of the full set of trade-offs involved, we have seen certain environmental costs blown out of proportion, while broader environmental benefits are ignored or discounted. At the same time, the economic realities are ignored. The result is that a perfectly sound project, both economically and environmentally, becomes suspect. An example is hydropower investments, which in some cases have been saddled with highly exaggerated environmental costs and deprived of their obvious benefits. This is an area where passion and reason can part company.

Policies for Environmentally Sound Development

Of course, it is neither inevitable nor necessary that such missteps occur. In their place, a number of policy choices can reconcile environmental quality and economic growth, public goals and private needs, and bureaucracy and business interest. I would put these at the top of any list for environmentally sound development because their economic costs are clearly less than their economic and environmental benefits; indeed, the costs in some cases entail a small fraction of benefits. Most of these highly desirable choices concern pricing policy, that is subsidies, taxes and trade measures. Other economic policies with high environmental benefits deal with the provision of basic services, such as water and sanitation. Let me say a few words about each of these.
Water supply in East Asia may well be the crisis issue of the next century. The economic dynamism of the region and its growing urban population are combining to place unsustainable demands on groundwater supplies while surface water sources are increasingly polluted. Despite the well known benefits of safe drinking water in terms of health and productivity, East Asian governments are now faced with public systems that fail to deliver potable water, and compel the poor in particular to pay as much as a tenth of their income to private street vendors. The problem is not the lack of willingness to pay but the inadequate quality of services, and these must be improved. Safe water could be supplied to the urban poor at costs below what they now pay. But infrastructure must be rebuilt to cut heavy leakages, prices should be set so as to recover costs and discourage wasteful usage, and surface water supplies must be cleaned up to assure economical supplies. This is the forgotten issue of environmentally sound development and a policy choice with obvious economic and environmental benefits.

Another is the reduction of subsidies. East Asia's prudent approach to fiscal management has limited the use of consumer and producer subsidies compared to the rest of the developing world. Yet we know that in a number of cases, subsidies in energy and agricultural input pricing result in over consumption of these resources. Electricity subsidies are of particular interest in environmental terms because below market prices cause excessive depletion of fossil fuels and additional air pollution. In some East Asian countries, electricity tariffs are one third of the marginal supply costs and coal subsidies are substantial. The first step to clean air and less wasted resources is to reduce these subsidies and encourage more careful consumption of power.

In addition to correcting these distortions, taxes on certain economic activities are needed to bring public and private costs in line with each other. Whether it is an industry discharging waste into rivers and ground water supplies, or a power utility polluting the atmosphere, taxes on the sources of pollution can be designed to yield environmental and social benefits. The polluters influenced by such policies are not only domestic producers, but also foreign investors.

Vehicle congestion and the air pollution it causes can also be addressed through fees, taxes and licensing in order to raise the costs of using vehicles in city centers. This price approach to congestion holds more promise than traditional traffic management techniques and vehicle bans because such charges as parking taxes and access fees are difficult to evade, and they generate a number of economic and environmental benefits. The Singapore Area Licensing Scheme has demonstrated some of these benefits in practice. I should add that vehicle air pollution is a particularly regressive environmental cost. The poor living in urban slums cannot afford the benefit of vehicles but pay heavily in health and environmental terms from the pollutants.
The convergence of good environmental policy and economic policy extends to trade issues. There is strong evidence that a more open economy -- by importing more effective technologies available on the global market -- is able to develop cleaner production processes more readily than a closed protected economy. Global competition stimulates this technological evolution.

**Trade Offs and Public-Private Partnership**

I have talked about ways in which good policies can address environmental concerns. But as I cautioned at the outset, environmental improvement is not costless. There indeed are trade-offs between economic growth and environmental quality. For many sources of pollution, the only known techniques to control them involve larger private (or financial) costs than private benefits, even though social benefits in the form of improved natural resource quality may be high. These are activities the private sector would not typically undertake. So, the key again is to bring private costs and public costs of the polluting activities into line. This means for the most part that polluters should bear the costs of their activities, whether they are private firms or public utilities.

But the world of costs as well as benefits is murky, with disputed technical relationships between environmental degradation and society, and private versus social calculus. Resolving these uncertainties will require an enlightened approach. I am convinced that by far the best way to manage this uncertainty and to fairly share costs of a cleaner natural resource base will be to forge a partnership between government and the private sector. A partnership means avoiding a punitive, anti-growth approach, and it also requires a willingness on both sides to reach effective agreements on cost sharing. Without this sort of framework, regulation and enforcement costs rise, litigation and acrimony slow the clean up process, and the investment climate suffers.

Forging such a partnership is much more than a change in attitudes; more fundamentally it rests on concrete collaborative initiatives. These can be patterned after the many East Asian examples of successful partnership in the industrial and economic arena and those attempted for the environment in some parts of the world. Let me mention a few of the more promising applications of the partnership principle:

* **Consensus on realistic standards and guidelines** — industry groups could be much more actively engaged in the process of establishing environmental standards or guidelines. These could be either established in collaboration with official regulators, or could aim to be tighter than anticipated government standards. Perhaps most importantly, they should have an active program of self-enforcement. This has precedents
internationally in the chemical and petroleum industries. Such efforts could be emulated by East Asian countries.

* **self-compliance, monitoring and implementation** - private business can play an important role in compliance, monitoring and implementation of anti-pollution programs. Some of the most innovative ideas are to be found in developing countries, such as the proposed Industrial Environment Fund for hazardous waste disposal here in Thailand. To minimize monitoring and enforcement costs while ensuring that all waste is collected and its disposal paid for by the responsible firm, factories would be required to deposit their waste disposal fees for the entire year in advance with the Fund, along with a matching bond or guarantee. The bond would be progressively returned to the company as it delivered waste to the treatment facility. Many implementation issues would need to be worked out. The virtue of this proposal, developed by TDRI here in Bangkok, is the use of incentives to construct a self-enforcing, cost effective mechanism, based on the polluter pays principle.

* **technological innovation and adaptation** - a third area is technological innovation and adaptation. Using the same policy tools employed in East Asia to facilitate the acquisition of competitive industrial technologies, government and business can work together to stimulate the adoption of cleaner technologies for energy production, manufacturing processes and recycling of industrial wastes. A number of recently developed clean production processes will pay for themselves in the near term. In the case of equipment manufacture, ultrafiltration technology can nearly eliminate wastes of solvents, oils and paint and recover costs in two years. Government's potential role here might facilitate contacts with international firms, provide incentives for acquisition, establish research and development organizations to pursue promising technologies, and structure tax laws to reward the retrofitting of older industrial stock.

* **environmental audits** - I will mention one last example of partnership - environmental audits. This practice, which involves an annual assessment of all the environmental impacts of a company's operations and its compliance with applicable standards, has been used by some multinationals, but could be adapted for use in developing countries by a much broader selection of firms. Such audits could be integrated with government monitoring and regulatory procedures, and could be built into programs of waste disposal and toxic waste management.
Expanding the Partnership

The most successful developing countries in the world have before them critical choices if they are to show the way toward environmentally sound development. Many of these choices lie in the hands of government and how it prioritizes its actions. We believe that the economic policies that generate powerful benefits for the environment and the economy should be at the top of the agenda. These pricing, taxation, subsidy, services and trade policies are low risk, low cost, and help establish a sound economic footing for grappling with the more complex issues where private costs and public costs are out of line.

In the second tier of the agenda, policymakers must delve into the thicket of uncertainties and trade-offs that make environmental improvement so complex and challenging. Governments cannot do this alone; partnership with the private sector is needed. For this to work, the private sector must internalize an increasingly powerful truth: that environmental quality is good for business. Good because polluters will in the long term wear out their welcome; good because there are expanding business opportunities to provide environmental services; good because clean processes are often profitable processes; and good because governments in East Asia, given any encouragement, will be inclined to work with, rather than against business to achieve environmental quality.

Other participants must be mobilized. Environmental advocates and NGOs, who are in many ways the guardians of the debate on environmental quality, must continue to keep the pressure on, monitor progress on announced programs, scrutinize proposals and propose their own. But in East Asia, advocates have not paid sufficient attention to the urban and industrial issues where so much of importance to the environment will be decided over the next decade. At times they have yielded to the temptation of single issue advocacy without weighing the overall calculus of the trade-offs involved. Their participation will add much to the content of debates on these questions, particularly if we all begin speaking in the same language on priorities and choices.

My last point concerns the international dimension and particularly the institution I represent, the World Bank, and our future contribution to forging a public-private partnership. We have come a long way over the last five years in building up our environmental program and the expertise to carry it out. Last year about 10 per cent of our lending supported what we call "core environment projects". This year our core environment projects will rise to about 15 per cent of total East Asia lending, and next year the proportion should go up again to about 20 per cent. Over a four-year period, we plan to support about 40 such projects with a total value of $4.3 billion. I want to
emphasize that every project we support, whether for environmental improvement or not, must undergo a rigorous process of environmental review and assessment, so that specific environmental impacts are determined, design options and costs considered and mitigation actions incorporated. Project specific mitigation action and investments are financed as part of our project lending.

This does not capture the totality of the Bank's involvement. We expect that some of the innovative approaches to institutional development and environmental policymaking in these projects will have a substantial impact. We are also pleased that we are able to take a broad analytical cut on environmental problems, seeing how they interact, understanding the trade-offs with economic progress and policies, and developing some clear priorities with governments on what to do first.

East Asian development will increasingly be defined by environmental needs. East Asia, by our calculations, might need to spend as much as $20 billion a year efficiently for environment related investments in this decade. Lowering the levels of accumulated wastes and reducing the flow of pollutants will consume an increasing proportion of government expenditure and private investment. We want to be at the forefront of policy and technical innovation and perform a major supporting role for the forging of private-public partnerships. Our business is development, and development that sustains rather than destroys the natural resource base is development that we wish to foster.

So, let me offer what I hope will be an attractive proposition for East Asia. In addition to the assistance we provide for economic policy reform, social services, infrastructure investments, forestry and other more traditional mainstays of sustainable development, let me propose an additional dimension to the partnership approach. If our borrowers in East Asia seek to convert the principle of partnership into concrete, viable programs of action, then the Bank will be ready to support those efforts, technically and financially. We will welcome the opportunity to consider a wide range of such undertakings, and they include:

* realigning private with public costs of environmental degradation through more accurate and targeted pricing of pollution, depletion and degradation of the environment.
* building institutional capacity to manage an effective public-private partnership;
* facilitating technological adaptation and innovation;
* promoting new approaches to inner city transport problems so as to improve the productivity and liveability of Asia's cities;
* marshalling sources of finance to support hazardous waste clean up activities and some cases of industrial retrofit;
exploring alternative energy technologies that promise gains in efficiency and lower pollution; and
introducing pilot programs that include innovative self-compliance mechanisms such as environmental audits and waste disposal funds.

This is as much a challenge for the Bank as it is for our member countries. None of these areas for active partnership are straightforward or routine. All will require considerable analytical effort and carefully thought out implementation. In this we hope to learn from the Asian experience, as much as to impart our own expertise. It will be a rewarding effort, indeed, if this group of dynamic countries can show the way once again, this time toward a new partnership for environmentally sound development.