

**An Address by**

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**presented at**

## **Financing Nature Conservation and Full Cost Resources Accounting**

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**Ladies and Gentlemen,**

Tonight I have been asked to speak on government efforts to finance environmental infrastructure. First, to give some perspective to my remarks, I will touch on the success of Thailand's economic development and the resultant environmental deterioration. I use that term intentionally. Second, I wish to discuss environmental policy objectives and the roles of both the government and the private sector with regard to the environment. Third, I would like to explore measures which have already been undertaken by the government to meet the environmental challenges we are facing. Finally, I will touch on the problems of financing "environmental infrastructure."

### **THE SUCCESS OF ECONOMIC DEVELOPMENT**

The success of Thailand's economic development is well-known. Thailand has been one of the fastest growing economies both in the region and in the world. Annual growth, for example, has averaged 9 percent over the past seven years. Over the past three decades, per capita income increased from US\$ 10 in 1961 to US\$ 2,600 in 1994—an increase of over 2,000 percent. Inflation has been kept at a low level, averaging 4.5-5.0 percent. In 1994, inflation remained at 5 percent. Our fiscal position has been in surplus for seven consecutive years, with more than 200 billion baht (US\$ 8 billion) in treasury reserves. The external value of the baht has been stable and the baht is now accepted as hard currency throughout the region. Furthermore, our international reserves are more than 6.5 percent of our imports.

Such rapid growth, however, has not been without consequences. Severe imbalances, both social and economic, now plague the nation. One such imbalance is the ever-widening income gap between rich and poor. Another is the lack of adequate physical infrastructure to handle the nation's growing communications and transport demands. Finally, the past two decades of rapid growth have brought serious environmental deterioration.

### **Environmental Deterioration**

In recent years, no region or community has gone unaffected by environmental deterioration. Water pollution has become a threat to economic development and quality of life itself. Especially in the Bangkok metropolitan area, air pollution is equally serious. Water for agricultural and industrial uses is in short supply. Our forest area has decreased to less than 90 million rai (14.4 million hectares) and forests now cover just 28 percent of our total land area. In urban areas, even noise pollution has become a significant problem.

It is clear to many that unless these problems are seriously addressed and workable solutions found, environmental deterioration threatens to limit Thailand's economic growth and will almost certainly further degrade the nation's quality of life. Without doubt, concrete measures must be taken now toward ensuring sustainable growth.

## **ENVIRONMENTAL POLICY OBJECTIVES AND THE ROLES OF THE GOVERNMENT AND PRIVATE SECTOR**

The government must take the lead in finding workable solutions to environmental deterioration. In this regard, government policy has three primary objectives:

- to stop further environmental degradation
- to rehabilitate or replace degraded areas
- to develop and enforce a system of laws, rules, regulations, and monitoring to ensure sustainable use of the environment

You may ask, "Why should the government take the lead?" Environmental problems are now more severe than any single sector or party can effectively address. The government is the only sector with enough budgetary *and* manpower resources to take the lead in tackling the complexity and magnitude of Thailand's current environmental problems.

While the government must take the lead, it must also realize that budgetary measures alone are highly inadequate to meet the challenges that lie ahead. Cooperation from all parties concerned—the central government, local government, and private sector—is required if we are to adequately address these problems.

The private sector in particular should participate in two ways. First, as the primary polluters of the environment, private firms must do their utmost to contain the damage caused to the environment by their industrial processes. If this cannot be done, firms must be required to pay for the cost of polluting in the form of taxes or user charges. Second, private investment in pollution treatment facilities, such as sewage and solid waste treatment facilities, can and should be increased.

In addition, local government should be enlisted to cooperate in the formulation, implementation, and monitoring of environmental policy measures.

## **MEASURES UNDERTAKEN BY THE GOVERNMENT**

The government has undertaken various measures aimed at rehabilitating degraded natural resources and developing existing natural resources. Such measures can be broadly classified into two groups:

- fiscal instruments (i.e., government budgetary measures)
- other measures designed to manage and monitor natural resources and the environment

[Table 1](#), [Table 2](#), [Table 3](#), [Table 4](#), and [Table 5](#) briefly summarize allocations, and projections of government budgetary resources, to natural resources and the environment. As shown in Table 1, "budgetary allocations to conserve and develop natural resources and the environment" will increase by nearly 70 percent in the coming fiscal year. Replanting of forests and improving soil quality, as well as preventing its further deterioration, will increase by 15 and 13 percent, respectively, in the 1996 budget.

Other measures designed to manage and monitor natural resources and the environment include the establishment of the Environmental Conservation Fund. To date, the Fund has accumulated roughly 6,000 million baht (US\$ 240 million) to be used for projects relating directly to conservation of natural resources.

The government is also setting up Environmental Protection and Pollution Control Zones in such sensitive coastal zones as Pattaya, Phuket, Krabi, Phi Phi Island, the Bang Kra Chao area, and Samut Prakarn.

Another significant and important policy measure has been the adoption of the "Polluter Pays Principle." In adopting this principle, we have recognized that only when we have private sector investment, based on the "users pay principle" can we hope to achieve full accounting for the costs of polluting. Adopting this principle has been a requisite step for the government, for without such a principle, the government would be unable to fully determine the costs of financing natural resource management.

The government is also in the process of establishing Regional Environmental Offices in various provinces. The hope here is that decentralization of power and the responsibility for environmental administration, which will not work without the active engagement of local governments, will result in Provincial Environmental Management Plans.

Finally, on April 11, 1995, the Cabinet approved in principle the establishment of the Waste Water Treatment Organization, as proposed by the Ministry of Science, Technology, and Environment. The organization will operate as a company or public company limited, charged with developing a waste water treatment system in the lower part of the Chao Phraya River Basin.

## **FINANCING ENVIRONMENTAL INFRASTRUCTURE TO PROMOTE NATURE CONSERVATION**

Even in the absence of figures or studies, one can make an informed estimate as to the state of a country's environmental infrastructure. In Thailand, for example, there is a huge need for investment in environmental infrastructure projects, such as water supply, and waste water and solid waste treatment facilities. This, of course, would not be true if the environmental infrastructure were in good shape. As I emphasized earlier, the government alone cannot meet this demand. Private sector investment must be encouraged. May I suggest five ways to do this:

- Amend laws and regulations to enhance environmental protection and provide incentives for private sector investment.
- Provide special Board of Investment promotion to those investing in environmental infrastructure projects, just as the government is providing special promotions to firms locating outside of Bangkok. In particular, firms providing environmental infrastructure in Zones I, II, and III should be sought. Abuse of such incentives, however, should be carefully monitored.
- Privatize public enterprises.
- Establish joint public-private ventures to address environmental infrastructure problems, e.g., form public-private waste treatment companies in industrial estates.
- Encourage local government initiatives in monitoring and protecting the environment, e.g., allow local governments to tax industries or activities which adversely affect the environment. The government is now considering introducing loan guarantee projects for local governments and other public agencies. The loan guarantor's role will be to increase the access of local governments and other potential borrowers to debt financing through assuring investors that borrowers will not default or miss payments on loan principal or interest.

The financing of such projects can be met through both local and foreign private sources (i.e., financial and capital markets).

## **CONCLUDING REMARKS**

I do not doubt that "the environment" and the range of environment-related issues will become controversial and promote much heated debate. Today, every government must face this fact and every government must seek appropriate measures to deal with such challenges. There is, however, no single, workable solution to this complex challenge for all economies. Rather, the challenges we face here, today, in Thailand can be effectively addressed and solved only if we make an honest effort to learn from the experience of other nations. We must also be determined and committed to developing cooperation between the public and private sectors. This Policy Seminar is one such effort. It is my hope that the government will follow your efforts toward understanding of the great environmental problem and promote public awareness of the supreme importance of conserving our precious environment, and the natural

resources it offers the nation.

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