

A MARKET-BASED ECONOMIC POLICY FOR ENVIRONMENTAL PROTECTION: AN INSURANCE AGAINST ENVIRONMENTAL DEGRADATION IN THAILAND

by Mr. Smith Tungkasmit*

Increasing economic growth and prosperity can enhance a society's demand for environmental protection. For more than two decades, Thailand has pursued economic growth at the price of environmental degradation. Data regarding pollution published by many organizations showed upward trends in the deterioration. However, a paradoxical behavior of both the private sector and the urban middle class showed demands for higher material consumption and environmental protection at the same time. Currently the political conditions for action to protect the environment were created among consumers and business as a result of this paradoxical trend. The rules and regulations that followed Government intentions in this regard actually created both controversies due to inconsistency of actions and

economic burdens for stakeholders. The illusion of choosing between economic growth and environmental quality treated economic and environmental goals as if they were incompatible alternatives. That is, the idea not only fails to recognize the dependence of economic performance on the health of the natural systems but also poorly reflects human needs which is a holistic pursuit of economic, social, and environmental

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goals. Dominated by market economy, what is needed for Thailand to ensure a sustainable growth for the nation is a market-based economic policy for environmental protection.

The Need for Government Intervention

Government intervention stems from the fact that the "invisible hand" of the market fails to align the interests of the individual or the individual company with those of the society at large. In mass production consumption activities, the costs to the environment and thus to society exceed any private cost to individual or company. As a consequence, the government need to step in to align private costs with social costs although the practices are rarely the most cost-effective way to clean up. While the most cost-effective method of intervention described by Daly (1977, p.121) as "depletion quotas" is, in principle, a desirable alternative the method aims at reducing production and consumption behavior if it is put into practice by the government. Therefore, an alignment with public opinions and behavior is a crucial factor in determining effectiveness of market-based economic policies for environmental protection.

Pricing the Environment

In search of an effective market-based economic policy economists have frequently proposed the adoption of a system of taxes and subsidies to control externalities, where the tax on a particular activity is equal to the marginal social damage it generates. In practice, however, such an approach has rarely proved feasible because of our inability to measure marginal social damage. Baumol and Oates (1971) concluded in their research on the use of standards and prices for protection of the environment that we established a set of admittedly somewhat arbitrary standards of environmental quality (e.g., the dissolved oxygen content of a waterway would be above x percent at least 99 percent of the time) and then imposed a set of charges on waste emissions sufficient to attain these standards. While such resource-use prices clearly will not in general produce an efficiency in resources allocation it is shown that they nevertheless do possess some important optimality properties and other practical advantages; in particular, it is proved that for any given vector of final output such prices can achieve a specified reduction in pollution levels at minimum cost to the economy, even in the case of firms with an objective other than that of simple profit maximization.

In order for the process of valuing the environment to be more practical, Pierce, Markandya, and Barbier (1990,p.80) suggested some implications of the valuation procedures. These are :

1. By at least trying to put money values on some aspects of environmental quality we are underlining the fact that environmental services are not free. They do have values in the same sense as marketed goods and services have values. The absence of markets must not be allowed to disguise this important fact.
2. By trying to value environmental services we are forced into a rational decision making frame of mind. Quite simply, we are forced to think about the gains and losses, the benefits and costs of what we do. If nothing else, economic valuation has made a great advance in that respect.
3. Many things cannot be valued in money terms. That is altogether different than saying they are "priceless" in the sense of having infinite values.
4. The fact that we find positive values for so many environmental functions means that an economic system which

allocates resources according to economic value (i.e., consumer preferences) must take account of the positive economic values for environmental quality. Yet the actual values are zero in many cases.

The Polluter-Pays Principle

Dominated by the environmental pricing and the production consumption behavior of the society, the polluter-pays principle is believed by the author to be the most effective market based economic policy. It works by creating incentive to avoid pollution. When properly designed, the policy should impose on a polluter the costs that would otherwise be dumped on the environment. As described by Cairncross (1993-p.94), the policy has two primary advantages namely the short term and the long term. In the short term, it will generally provide a given level of environmental improvement at a lower cost to society than will regulations. This is because polluters will have an incentive to reduce the amount of pollution they produce for as long as it is less expensive to do so than to pay more environmental charges, using the technology they judge to be most efficient. Regulations by contrast take account of the costs of cleaning up only in a rough and ready way. In the long run,

it offers companies and individuals a continual argument for going further than a standard would demand. If companies pay a higher rate for every unit of toxic material they dump, they have an incentive to use as little toxic material as possible and to look for new technologies available that use none at all. The consequence is a positive incentive to buy less polluting technologies instead of an incentive to postpone changes as with regulations. According to the research by Porter and van der Linde (1995), tougher global market based environmental policies can enhance competitiveness by pushing companies to use resources more productively and encourage managers to recognize environmental improvement as an economic and competitive opportunity due to the enormous opportunity cost of pollution-wasted resources, wasted effort and diminished product value to the customer.

The Final Prescription

In pursuit of a sustainable growth, a developing country like Thailand needs a holistic approach of economic development. The word "holistic" implies paradoxical goals of economic prosperity, environmental susceptibility and social stability. The market-based economic policies for environmental protection discussed

here give rise to those desired goals. Although it is hard to deny that environmental regulations and standards are needed to inaugurate an era of cleaning up the country, the method is not considered to be cost-effective and may create a negative side-effect to the process of capital accumulation in the long run.

Technological innovation in the form of cleaner production and efficient processes is a pre-requisite for capital accumulation at this stage of development. To encourage innovation and competitiveness in the private sector economic policies driven by POLLUTER-PAYS principle are vitally needed. To be effective the polluter-pays principle must be dove-tailed with the "natural assimilative capacity" (i.e., capacity to 'assimilate' pollution and waste) possessed by each geographical area of the country. Last but not least it is, indeed, a powerful insurance policy for the protection of our environment, considering our aims towards both economic growth and better quality of life.

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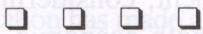
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"It is very strange, and very melan-
choly that the paucity of human
pleasures should persuade us ever
to call hunting one of them." —
Samuel Johnson.



"Everyting has its beauty but not
everyone sees it." — Confucius.



"There never was a good war, or a
bad peace." — Benjamin Franklin.



"The world is a fine place and worth
fighting for." — Ernest Hemingway.



"Earth laughs in flowers." — Ralph
Waldo Emerson.



Campus Newsletter

[Mr. Alan B. Watson, a Senior Lecturer, Department of Risk and Financial Services, Glasgow Caledonian University, U.K., also a member of our Editorial Board, has contributed this newsletter.]

I am sending an update on the activities of our department, which may be of interest and may stimulate some responses from interested readers.

The Department of Risk and Financial Services are as industrious as ever, and in addition, as a result of a sponsorship agreement with Britannia Life have moved into the new Britannia Building within the City Campus at the University. The Building also houses the Department of Finance and Accounting of the University Management Group.

New additions to the department include Dr. Simon Gao, who will be responsible for the administration of the Financial Services

degree, the creation, operation and promotion of the new PGD/MSc in Risk and Financial Services and also for the development of research interests in the department. Ann Mac Neil has joined the department to assist in the degree and professional programmes. Ann organized the British Accounting Association Conference at Herriot - Watt University.

The department is currently offering the following programmes:

- BA / BA (Hons) Risk Management
- BA /BA (Hons) Financial Services
- Diploma in Health and Safety Management
- Associateship of the Chartered Insurance Institute
- Associateship and Membership Programmes for the Chartered Institute of Bankers in Scotland

In 1996, the Diploma in Health and Safety Management will be offered as a BA / BA (Hons) degree. The new MSc. Risk and Financial Services will be validated in October.

Various discussions have taken place with national and international contacts to develop risk management and health and safety programmes and modules. The Diploma in Health and Safety Management have taken in excess of 70 students and are oversubscribed for the first year.

Members of the Ministry of Labor and Social Protection Social Security Training visited the department between 29th November and 6th December 1995 to undertake a course in social security.

Audrey Weir organized the CESCOT Course for the third delegation from Bologna to GCU.

Overseas visits:

John Reid and Simon Gao visited Moscow under a British Council Project. John Reid lectured at Moscow Higher School of Economics on "Risk Management"

Simon Gao lectured at the Moscow Higher School of Economics on "Leasing Finance : Global Development and Implications for Eastern Europe".

John Reid and Lynn Drennan organized a three-day course in Risk Management for a group of industrial managers and insurers in Jakarta, July 1995.

Harry Munro and Jennifer Adams were at the Thailand Social Security Training course for members of the Executive Management, Bangkok from 12th to 17th December, 1995.

Harry and Jennifer also visited Moscow to provide a training course for the introduction of Non-State Pension Funds during 13th - 17th November, 95.

Audrey Weir and Shahid Nawaz provided a course on Risk Financing and Disaster Planning for the Bahrain Institute of Banking and Finance (Insurance Department). Delegates from prominent insurance companies in Bahrain and Saudi Arabia were present.

Margaret Davis visited Monte Carlo at the Risk Management

Forum, a joint AEAI / RIMS conference. She was accompanied by Alan Stewart, a 2nd year B.A. Risk Management prize-winning student.

Alan Watson visited Malaysia in August, 95 for the second year, to act as external examiner at the Mara Institute of Technology Advanced Diploma in Risk Management and Insurance.

National Visits and Conferences attended by our Faculty.

Dennis Pattenden: The Society of Financial Advisors, Conference, Birmingham, 1st and 2nd December., 1995.

Lynn Drennan: Annual Conference for Research into Higher Education, December, 95 the theme being "the Changing University".

Alan Watson: Chartered Insurance Institute Annual Conference, Cardiff.

Ann Mac Neil: Credit and Scoring Conference, University of Edinburgh September, 95.

Bill Stein: Seminar, Motherwell District Council. Risk

Management Workshop, College of Radiographs, GCU, November.

Taylor Bourne attended a series of sponsored lectures on "Finance for Engineers" at the University of Strathclyde.

Taylor attended a conference on the Construction Design & Management REGS, by the Chartered Institute of Building Services Engineers.

Margaret Davis and John Reid attended the Institute of Risk Management Annual Conference in Cambridge, September.

Constituencies.

John Hood and Alan Watson have completed a report on Arson and Theft in Schools for a local authority.

Research: Existing and developing.

Ph.D. research by Sid Hussin, Frank Montgomery and Lynn Drennan is proceeding with Sid and Frank completing their research early 1996.

Bill Stein is preparing a M.Phil / Ph.D. proposal for submission in 1996.

Alan Watson's Ph.D. proposal on General Insurance Company Performance Indicators has been accepted by GCU Research Degrees Committee.

Shahid Nawaz: New course development MSc. Construction Management & BA Financial Maths (New Course Development Board)

John Hood: Currently developing M.Phil / Ph.D. Proposal.

Simon Gao: Leasing Finance in Eastern Europe, Environmental Risk Analysis and Reporting.

Papers Presented:

Roddy McKinnon presented a paper on "Another World of Welfare Capitalism ?" at the Development Studies Association Annual Conference in September 1995 at University College, Dublin,

Margaret Davis, John Hood and Bill Stein are in the process of writing a textbook "Introduction to Insurance" for the Institute of Risk Management.

The Annual Britannia Caledonian Financial Services

Lecture was presented this year by Andrew Large, SIB Chairman October 95. The title of the lecture was "The Strength of Sunlight", an appraisal of life assurance marketing regulation.

Dr. Colette Bowe, Chief Executive of the Personal Investment Authority addressed the BA Financial Services students on "The Structure of Regulation of Financial Services in the UK."

I hope that this is of some value and interest and will provoke contributions from colleagues at other universities.

[NOTE FROM EDITOR : Campus or general newsletters are invited from Insurance or Risk Management Faculties of Universities and other Research bodies.

The Editorial Board also congratulates their colleague Mr. Alan Watson on his Ph.D. proposal being accepted. Is it elementary, Dr. Watson?]



"If a little knowledge is dangerous, where is the man who has so much as to be out of danger?" — Thomas Henry Huxley.



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The Journal of Risk Management and Insurance invites letters to the Editor on topics of interest to the Risk Management and Insurance professionals. The authors are requested to kindly double check the accuracy of any factual information they may be giving in the course of their correspondence.

The Journal would encourage open discussion in a free academic atmosphere although, attack on individuals and institutions be better avoided.

The Journal also welcomes reporting of news happening in different regions of the world from readers who have easy access to news. We would particularly appreciate receiving photographs accompanying the news.

All correspondence may be addressed to the Managing Editor.



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