VALUES IN CONFLICT
POLICY INTERACTIONS IN THE PACIFIC BASIN

91-8 **SEPTEMBER 1991**

CITATION AND REPRODUCTION

This document appears as Discussion Paper 91-8 of the Center for Science and International Affairs. CSIA Discussion papers are works in progress. Comments are welcome and may be directed to the author in care of the Center.

This paper may be cited as: John D. Montgomery, et al. "Values in Conflict: Policy Interactions in the Pacific Basin." CSIA Discussion Paper 91-8, Kennedy School of Government, Harvard University, September 1991.

The views expressed in this paper are those of the authors and publication does not imply their endorsement by CSIA and Harvard University. This paper may be reproduced for personal and classroom use. Any other reproduction is not permitted without written permission of the Center for Science and International Affairs, Publications, 79 JFK Street, Cambridge, MA 02138, telephone (617) 495-3745 or telefax (617) 495-5776.

Foreword

The Pacific Basin Research Center began operating as a project in the Center for Science and International Affairs in the summer of 1991, pending the establishment of its permanent home near Los Angeles. Its interests extend somewhat beyond the Pacific Basin proper, to include Korea, China, and India, as well as most of Asia and the Americas. In electing to study policy issues in international development, environmental protection, culture and education, and national security, it parallels the current agenda of the Center for Science and International Affairs and its geographic focus is a complement to our on-going research in Europe and the Atlantic countries, including the Middle East.

"Values in Conflict" is the first publication of the PBRC. It presents papers that were delivered during its early months while the concept of policy interactions was being developed as a research agenda. Other research products are expected to appear over the coming months.

-Ashton B. Carter
Director
Center for Science and International Affairs

Table of Contents

Policy Interactions and Mega Policies,
by John D. Montgomery

Conflict and Synergy: Policy Interactions and the Creation of Value,
by Timothy C. Weiskel

Policy Interactions of Asian Growth,
by Dwight H. Perkins

Current Perspectives on Environmental Problems and Environmental Policies,
by Richard A. Berk

Policy Interactions in Japanese Foreign Affairs,
by Susan J. Pharr

Policy Conflicts in Thai Development,
by an anonymous official

Contrary Consequences of "Affirmative Action" in Malaysia,
by Milton J. Esman

Research Needs in Policy Interactions,
by John D. Montgomery

POLICY INTERACTIONS AND MEGA POLICIES

by
John D. Montgomery*

Dilemmas of Value Creation.

The Pacific Basin Research Center is committed to the study of value-creating policies, whether generated by governments, international organizations, or private institutions. It has chosen to concentrate on four sectors: economic and social development, environmental protection, education and culture, and national security. To avoid duplicating conventional analyses of these sectors, and since activities in these fields often affect each other, the research will focus on interactions among them, and especially to the "mega-policies" that are created to take advantage of the resulting synergies.

Modern societies tend to segment public policies into separate, unique niches in the corridors of power. They create different agencies to engage in policies involving such values as national security, education, environment, and development. Yet every thoughtful observer knows that these policies interact, sometimes negatively: industrialization can threaten the environment, military buildup can distort economic investment, education can undermine the self-confident complacency required for social stability, commercial transactions can strengthen a hostile state, and even ecological conservation can weaken a nation's international competitiveness. When policies interact, they can create the need for new policies: mega-policies, that transcend the sectoral conventions and organizations of modem government.

The use of policies to create public values thus becomes a continuous process, especially when apparently rational policies produce uncertainty in their encounters with each other. Sometimes the result of interacting policies is conflict, sometimes complementarity. Such policy interactions constitute an important opportunity for value creation and renewal.

The proposal to study this phenomenon will supplement conventions of policy analysis. Professional analysts tend to consider policies in isolation from each other, not recognizing these points of interaction for what they are: a clash not between *good and evil*, but between *good and good*. Both positive and negative interactions create a fortuitous opportunity to create reinforcing policies that often goes unrecognized as a possible new source of value.

The existence of policy interactions is not a recent discovery: complex interactions among different kinds of governmental interventions have become more and more obvious, and their influence on conventional policy-making more and more constraining. Few policies can stand alone any more. Yet policy makers continue to practice their arts in sectoral isolation, leaving to central planners and political leaders the task of identifying and managing issues that rise above conventional sectoral lines. There is still no systematic approach to issues that is intersectoral, coordinative, or holistic. Indeed, there is only the most casual effort to study experience gained in dealing with these kinds of policies.

There are many possible ways of studying these phenomena, ranging from case histories and optional scenarios to models and simulations. Data can be generated to predict the costs and benefits of alternatives and conflicting elements, and analyses of negotiations strategies are introduced to simplify the task of making them. Consequences can be examined and forecasts presented to prompt policy makers to action. All of these

approaches are useful and valid; there is as yet no integrating theory to exclude an eclectic, experimental approach. These tasks lie ahead. A preliminary step in exploring policy interactions, the Pacific Basin Research Center commissioned the papers that follow, each of which examines a different range of problems that have engendered policy responses that influence other policies. At its next stage, the Center intends to study actual experiences in which "mega-policies," transcending the sectoral conventions of public policy, are created.

As analysts begin to recognize the opportunity for creative reconciliations and innovations that can result from policy interactions, the species of value-creation we are calling "mega-policies" can become a formal element in the art of policy-making.

---

*Ford Foundation Professor of International Studies, Harvard University; Director, Pacific Basin Research Center.

CONFLICT AND SYNERGY: POLICY INTERACTIONS AND THE CREATION OF VALUE

By

Timothy C. Weiskel*

Studying inter-sector policy conflict as an approach to policy analysis is important for several reasons. First, these inter-sectoral policy conflicts are likely to become more pronounced in the years and decades to come, and a new kind of expertise will be required for all those dealing with public policy. On a global level, environmental policies designed to control carbon emissions and limit ozone depletion that are likely to be forged between governments will have marked impacts upon the respective economic policies of individual nations. The policies developed by individual nations in recognition of the global problem encounter a different range of interacting purposes and institutions. As the problems become more prevalent, it would be wise to develop leadership that is familiar with strategies for policy conflict resolution. In the past our policy "experts" have usually emerged from within the institutions of particular policy sectors. Thus, there are foreign policy experts, agricultural experts, energy experts, etc. -- all firmly grounded in a sector-specific subject area. But where is the expert that can analyze the impact on U.S. agricultural export policy of an energy policy initiative that would seek to implement a transition to ethanol fuel systems in American cars? We need to train leaders that can master these inter-sectoral modes of analysis.

A second reason for taking this approach to policy analysis is to help us understand the enigmas of the biographical and institutional approaches to policy analysis. Ordinary individuals seem capable of extraordinary leadership if the "times are ripe for change," but what characterizes a moment that is "ripe for change"? From this perspective, the key moments that serve to elicit exceptional leaders within and between institutions are characterized by conflicts between policy sectors where, as yet, no institutionalized basis for conflict resolution exists. Persons who come forward to resolve these inter-sector policy conflicts (and perhaps even devise an enduring basis for overcoming similar ensuing conflicts) emerge as key leaders in institutions.

A third reason for studying inter-sectoral policy conflict is to learn from the instances in which policy interactions are resolved with a mutually enhancing result to both sectors involved. Not all policy conflicts need result in the subsequent dominance of one policy sector over another. Indeed, some of the most illuminating and encouraging features of this kind of approach to studying policy conflict resolution is precisely that it is possible to envision positive policy interactions, whereby a policy pursued in one sector can actually enhance -- not conflict with -policies pursued elsewhere.

For example, the public policy choice that Japan made after the oil price shocks of the 1970s and early 1980s was to encourage a pervasive effort to conserve energy and increase energy efficiency throughout the economy. While this policy may have been pursued initially for domestic economic reasons, the policy has had significant environmental repercussions world wide and actually stimulated Japan's international competitiveness. Not only has Japan provided a striking case to prove to other countries that energy conservation is a viable public policy option, but in the process Japan has emerged as well as a leading producer of new, energy-efficient technology, which itself has become a lucrative industry for export to the world market. The powerful synergy

that is possible when policies in one sector can be designed to enhance desired policies in another sector suggests that this approach to policy conflict resolution will yield both a new level of understanding in the analysis of past policy and the possibility of developing specific new public policy initiatives.

Finally, from a broader, conceptual perspective, the approach of focusing upon inter-sectoral conflict resolution allows us to reveal and discuss the underlying values questions inherent in public policy formulation. The values of any given culture are always in the process of definition. They are never given once and for all, in the form of an ordinance or timeless decree. Instead, they are constantly being defined, refined and re-defined in response to emerging circumstance. Policy conflicts are resolved through the exercise of explicit choices, and it is these patterns of choice that reveal a culture's underlying values, its fundamental categories of meaning and behavior. Policy conflict resolution can therefore be said to be itself a value-creating phenomena. As individuals, groups, nations and as an international community we will both define and affirm our fundamental values through our ability to understand and resolve policy conflicts between widely divergent traditions, institutions and individuals. It is fitting to begin by adapting our policy analysis tools to the nature of the real conflicts before us.

The papers that follow will explore different aspects of the policy interactions approach. Dwight Perkins examines the policy implications of recent trends of Asian growth, highlighting the developments in economic activity, energy consumption and trade policy. Moreover he asks what pattern of events might emerge if these trends cannot continue, both in reference to internal processes of democratization within Asia and in terms of the tone and substance of international relations. Richard Berk emphasizes the ways in which environmental concerns cut across numerous policy areas, underscoring the fact that leadership will need to become more adept at coping with inter-sectoral policy formulation.

Susan Pharr describes the kinds of policy conflicts that characterize modern day Japan, showing how criteria of economic growth sometimes conflict with other domains of policy concern, particularly in issues of foreign affairs. An anonymous official discusses the policy interactions in Thai development planning, and Milton Esman presents a case study of the Malaysian New Economic Policy to illustrate how a specific set of cultural policy goals has functioned to shape economic policy over the last two decades in Malaysia.

---

*Research Associate in Environmental Ethics, Harvard University Divinity School; Fellow, Center for Science and lnternational Affairs, John F. Kennedy School of Government, Harvard University.

POLICY INTERACTIONS OF ASIAN GROWTH

by
Dwight H. Perkins*

I would like to explore the implications of continued, sustained economic growth in Asia for the interrelation of two or three elements in the matrix that John Montgomery has elaborated in his paper[1], especially for environmental concerns and for security issues, including political development and human rights.

The nature of the problem becomes obvious from a simple calculation using the laws of compound interest. Consider the following figures:

The nature of the problem becomes obvious from a simple calculation using the laws of compound interest. Consider the following figures:

Country	Population (Millions)	GNP (1987) (Billions US$)
China	1,140	600
Japan	122	1,925
South Korea, Taiwan Hong Kong, Singapore	70	280
Malaysia, Thailand	70	105
Indonesia	170	85
	1,572	2,995

[N.B. for comparison, keep in mind that U.S. GNP for 1987 was $4,500 Billion]

There are two overwhelming characteristics of Asian growth: 1) its relative high speed--often reaching a rate of 10% per annum; and 2) its outward orientation. Moreover, this growth has been achieved by a rapid increase of manufactured exports. Natural resource exports are nonexistent in many of these countries, or declining in importance, even in Indonesia and Malaysia.

Projecting these trends forward one or two decades leads to quite dramatic figures. Considering that Japan's GNP has grown at an average rate of 4% and China and the others have grown at an annual rate of 8% the projected GNP figures are these, if these growth rates are sustained:

At these rates of growth, in two decades the GNP of the region could easily be more than double the current GNP of the U.S. In one decade alone, the region's combined GNP would be more than the current U.S. GNP.

Country	One Decade Ahead (1997)	Two Decades Ahead (2007)
Japan (4% p/a growth)	2850	4218
China (8% p/a growth)	1296	2796
Others (8% p/a growth)	1015	2190

These particular assumptions of growth may seem unrealistic, but unless you can make a case that East Asian growth rates are a temporary aberration you will come up with something close to these results. In fact any reading of the nature of economic growth makes it clear that "follower" countries today have clear advantages in terms of access to technology over Europe and North America.

The question becomes: Can world resources sustain this kind of growth performance? Energy is one of the key resources for this type of growth situation, and it is instructive to examine the energy consumption in the region to address the question of sustainability. Japan, Taiwan and South Korea, according to rough calculations, imported in the late 1980s around 4.5 million barrels/day. Their total energy (coal and petroleum) consumption amounted to the equivalent of about 6.5 - 7 million barrels/day (with Japan at 4.7 million, South Korea at 1 million, Taiwan at about 0.9 million). China represents a total GNP of only 27% of South Korea and Taiwan, but its energy production of coal and petroleum is over 11 million barrels/day. It produces 2.4 million barrels/day of petroleum and 1,016.39 million tons of coal. The United States, by comparison, produces just under 800 million tons of coal and consumes 11 million barrels/day of petroleum.

If we simply project these figures forward at 4% a year for Japan and 8% a year for the other countries -- say an average of 7% -- then there will be a doubling of usage in 10 years and a quadrupling in 20 years. Hence:

Year	**Consumption**
1990	18 million barrels/day
2000	36 million barrels/day
2010	72 million barrels/day

These are striking figures, though of course simple projections. For example, Japan has actually reduced energy consumption while its GNP grew during the 1980s. On the other hand,

China's use of energy has been notoriously wasteful. The questions are simply these: Can China become more efficient? They seem to be making progress in becoming more efficient, but is it fast enough? Will the reform effort help?

Even the most optimistic assumptions make it clear East Asia will be more and more a net importer of energy, even if South East Asia is included. Japan, South Korea, and Taiwan will likely double oil and coal imports over the next twenty years. Beyond this, the big unknown is China. If one half of the net increases in energy usage over the next twenty years are met by imports, the total demand on world markets will depend upon how efficiently energy is used within China. With low efficiency there could be a demand of as much as 16 million barrels/day, whereas with a high energy conservation effort and greater efficiency the demand could be 9 million barrels/day. These are huge increases. If these were the only demands being placed on the world market, perhaps the market could meet these needs, but what else will be happening at the same time to world demand?

Furthermore, it is important to keep trade issues in mind as well. The kind of growth that Asia has experienced can be sustained only if foreign trade grows more rapidly than GNP, or at least as rapidly. What are the implications of this for world trade as a whole?

Country	Exports (1987) (Millions US$)
Japan	229,055
---	---
South Korea	47,172
Taiwan	53,612
Hong Kong	48,475
Singapore	28,592
Thailand. Indonesia and Malaysia	46,730
China	39,440
Total (excluding Japan)	264,022

Exports of the region as a whole are greater than Japan's. If they grow at 9% a year, they will be exporting a new Japan every eight years. A striking $1,480 billion worth of exports in 20 years!

Can the world absorb this increase? Certainly not if it breaks down into trading blocs with rising barriers to trade emerging between these blocs. Asia cannot absorb these exports alone. Only an increasingly open world system can absorb a dynamic outward oriented Asian performance.

It may be useful to examine the relationship of these trends to prospects for democracy in Asia. It has been the open economic system more than anything else that has created pressures for a more open and democratic political system. An enormous influx of ideas came in with foreign trade and investment. This is most clearly visible in the experiences of South Korea and Taiwan. Without the rise of a prosperous middle class with important external sources of information, the recent democratic trends would be hard to comprehend. China in the 1980s also shows the force of the ideas that came in with trade, tourism and investment. The events of the spring of 1989 would have been very different in Mao's closed society. The Cultural Revolution is what the students produced under Mao.

It is also necessary to consider the relationship of these trends to peace and security in the region. We can see two possible scenarios emerging:

First Scenario: The world successfully accommodates rapid East Asian trade growth. An increasingly reformed Chinese system makes more and more efficient use of energy, supplied from its domestic sources. As a result, world energy prices remain low. An educated, informed and increasingly prosperous citizenry supports increased democratization, even in China. Peace and security are not threatened by economic tensions, assuming that democratic systems are less likely to revert to war to solve their problems.

Second Scenario: All of the pressures begin to build so that security performance is weak. Slower growth causes low employment and aggravates domestic strains. Inadequate energy resources causes OPEC cartel to drive prices way up again, crippling the world economy. In order to pay for oil despite low growth, countries push exports onto slow growing markets, causing escalating trade tensions. War is not the inevitable result of this process, but it appears likely that there will be greatly increased international tensions. How policies will respond to these interacting developments is perhaps the major issue confronting 21st-century Asia.

---

*Professor of Modern Chinese Studies and Political Economics; Director, Harvard Institute for International Development, Harvard University.

[1]See “Research Needs in Policy Interactions," page 26.

CURRENT PERSPECTIVES ON ENVIRONMENTAL PROBLEMS AND ENVIRONMENTAL POLICIES

by
Richard A. Berk*

Introduction

Environmental problems are old news. Statements much like those popular today can be found in the 19th century works of scientists such as George Perkins Marsh (1864)[1] and reformers such as John Muir and Bronson Pinchot. And at least since the late 1950's, with publication of W.L. Thomas, Jr.'s *Man's Role in Changing the Face of Nature 2* and Rachel Carson's *Silent Spring 3*, a combination of modern science and widespread public concern has been brought to bear. Are the problems we hear about almost daily just more of the same or is there something new and important unfolding? The answer is "yes," as I will try to briefly make clear.

Connections Between the Human, Biological and Physical Processes

It should come as no surprise that human activities, biological processes and physical processes interact. Water quality is but one example; nitrates from the fertilizers farmers use for a variety of crops, for instance, can contaminate ground water supplies. Likewise, the international demand for timber has an enormous impact on hardwood forests around the world which, in turn, affects not just viability of local habitats, but the ability of soils in those habitats to retain moisture.

The news is that these sorts of links are now being explicitly recognized. One cannot, for example, worry about water shortages facing farmers in the Western United States without at the same time considering not just irrigation technology and practices, but also demand for water intensive crops such as alfalfa and rice. Thus, the politics of water in California is for the first time seriously addressing subsidies for the water that farmers use, the establishment of markets for water, the financing of changes in irrigation technology, and how all of these interact with one another. The links between the human, biological and physical are clearly acknowledged.

The scientific community is also broadening its perspectives. Traditionally, research on the environment was compartmentalized with conventional scientific disciplines: biology, economics, chemistry and the like. Thus, for example, a chemist might study how hydrocarbons and oxides of nitrogen emitted largely from motor vehicles can be transformed into "smog," but ignore people's preference in American cities for commuting by automobile rather than by mass transit. The few cross-disciplinary enterprises, such as atmospheric and oceanic sciences, until quite recently have been relatively small players and not quite legitimate. However, an explicit recognition of the need to consider in research on the environment the links between human, biological and physical process has encouraged a wide variety of interdisciplinary research with far more in the offing. We are learning, for example, how to establish markets for pollution so that major industries have an economic incentive to reduce their emission. While the notion of markets for pollution is controversial

and by itself very unlikely to provide anything near a total solution, it is certainly a good example of the new interdisciplinary disciplinary research. In short, the scientific enterprise is gradually being reshaped to properly reflect what is connected to what.

Feedback Effects

If the human, biological and physical are connected to one another in important ways, it should come as no surprise that the positive and negative feedback effects are pervasive. The general existence of such links has long been widely recognized, but much useful research was able to proceed as if such complications were of secondary importance. This is no longer the case.

Consider, for example, the suggestion that planting trees is good for the environment. Trees of course, take in carbon dioxide and put out oxygen, and with enough new trees, perhaps the prospects of global warming would be reduced. Probably more important in the short term is that shade trees in warm climates also reduce the need for air conditioning, which can be major source of demand for electricity.

However, trees require water, and trees also produce gaseous hydrocarbons. Consider Southern California which already has a severe water shortage and the worst air quality in the Country. Water for the trees would have to be imported, which means not just that existing water supplies would be additionally taxed, but that pumps used to move the water to Southern California would be additionally taxed as well. The pumps, in turn require energy to run and that energy comes from the burning of fossil fuels. It is not clear, therefore, that planting a tree in Southern California is a step in the right direction if mitigating the enhanced greenhouse effect is one's goal. Yet, a lot depends on the kind of trees planted; there is enormous variability in how much water different trees require and when during the year they need it most.

As for the hydrocarbons, many are easily transformed into smog, so again it matters which trees one plants. Eucalyptus trees, originally from Australia, are apparently bad, while native Oak trees are apparently good. The major point, however, is the important role of positive and negative feedbacks. Trees planted in response to environmental concerns may make things better or worse depending on the kind and size of feedback effects. And the lesson generalizes to a host of environmental issues.

Non- Linearities, Thresholds and Surprises

A linear world is a simple world. The rate of change is effectively constant so that the future is relatively easy to forecast. For example, if one is convinced that over the past 100 years the planet has been getting about .1 degrees warmer on the average per decade, it is easy to project the average temperature 20 years from now. Extrapolating the linear trend, it will be on the average about .2 degrees warmer.

We have long known that few phenomena in the empirical world are really linear, but we have often proceeded as if they were usefully approximated by a linear form. For many important phenomena, we now know better. For example, the populations of many kinds of insects often grow exponentially up to some level. The exponential form implies that the growth will be very slow, perhaps even very difficult to measure, until a "take off point" is reached. Then the growth is very rapid. That is, a smooth curve gives the appearance of an abrupt disjuncture because it accelerates so quickly. Such patterns for insect "pests," for instance, will often catch us by surprise. All of a sudden there is a plague or an infestation.

Analogous complications are found in efforts to understand the role of carbon dioxide in global warming, in the responses of plants to increases in atmospheric carbon dioxide, or the response of people to changes in the price of gasoline. These are non-linear processes, and a linear approximation will often be very misleading.

Sometimes, the complexity has less to do with non-linearities and more to do with thresholds. Ice does not gradually change into water as the temperature rises, but makes the transition within a very narrow band of temperature that acts as a threshold; likewise, for decisions commuters make between different modes of transportation. Gradual improvements in the quality of mass transit compared to using an automobile will at some point induce a change from commuting by car to commuting by bus or train. Unless one knows where such thresholds are and the strength of the inducements, the timing of the transition, and perhaps even the transition itself, will be a surprise.

A Mix of Temporal and Spatial Scales

The scientific community is also beginning to address how human, biological and physical environmental processes operate at many different spatial scales and temporal scales. The role of CFC's in producing the ozone holes over the North and South Poles may begin with the innocent act of buying an automobile with an air conditioner. Automobile air conditioners typically use CFC's as a refrigerant, and the CFC's commonly leak out in daily use, when old refrigerant is replaced with new refrigerant, and when, ultimately, the cars are junked. In other words, we have come to painfully appreciate how a very large number of small, independent decisions made by individuals have world wide consequences. These consequences in turn, in particular increases in UV radiation, may affect the metabolic activities of the tiny plankton that are near the bottom of the food chain in the polar oceans: from the small to the big and back to the small.

Similar complexity operates with time. The atmospheric chemistry that transforms hydrocarbons and oxides of nitrogen into smog unfolds over hours. The smog, in turn, is breathed daily by millions of city dwellers around the world. Many of the most important health effects, however, may not be felt for years and indeed, there may be little relationship between the specific causes of short term lung distress and the specific causes of long term, irreversible damage.

Social Reality and Scientific Reality

It has long been appreciated how the scientific rendering of the world and the lay rendering of the world could differ. But it was assumed that the gap could be easily closed through education. Once the citizenry became acquainted with the scientific facts, the scientific view and the lay view would be much the same. We now understand that the social reality is often very resistant to revision. For example, the human cognitive apparatus is not very good at noticing gradual change. Sometimes the change is simply too small to be perceived until it accumulates and sometimes changes that are perceived are not taken seriously. Economists, for instance, argue that people routinely operate with an implicit "discount rate," which values more highly immediate gratification over future gratification. That is, the value in the present of some reward in the future is discounted. Likewise, future costs are less of a concern than present costs. One important implication is that it is difficult to mobilize people around environmental problems that unfold gradually or that only have serious consequences in the

distant future. Indeed, perhaps the most important priority in effectively mobilizing the public on environmental issues is finding ways to extend the public time horizon to years or even decades. But a short time horizon is only part of the problem. Years of research in cognitive psychology suggest that scientists and lay people often evaluate risks very differently. For example, how concerned people might be about some environmental hazard, such as contaminated drinking water, involves not just an assessment about likelihood of serious health effects, but the causes of the contamination. If the contamination was caused by the corruption or negligence of corporate officials, for example, the risks will be seen as greater than if the same level of contamination was caused by an "honest mistake." In fact, of course, the actual risks are one thing and the causes of the risk are quite another.

The Permeability of Political Boundaries

A great deal of social science research on environmental issues is premised on conventional political boundaries: countries, regions, metropolitan areas and the like. It is increasingly apparent, however, that such boundaries are insufficient for the proper study of environmental problems. First, environmental problems are not constrained by political boundaries. For example, the Japanese government is increasingly concerned that economic development in Northern China largely powered in part by low grade coal will produce acid rain in Japan.

Second, lots of important international communication occurs through organizations that are not linked to national governments. For example, much of the recent international consensus on the role of CFC's in reducing stratospheric ozone over the poles was generated by scientists and their professional societies. And the qualifications for membership in the American Chemical Society, for instance, say nothing about one's nationality. Likewise, international trade and the activities of multinational corporations are critical vehicles for international communication, conflict, and cooperation on a host of environmental problems.

Policy Spill-over Effects

Like the sciences, politics and political agencies often seem designed around tidy organizational charts. For example, there are the equivalents of the U.S. Department of Defense and the U.S. Department of the Interior in nations around the world. And there are peace/war political groups and environmental/development groups the world over. However, as the recent Gulf War highlights, the causes and consequences of environmental problems often span conventional agencies and political groups. Thus, we are just beginning to learn what consequences the burning of Kuwait's oil fields will have for the health of people living downwind, and for the climate in the region more generally.

As another illustration, consider pricing and production decisions by OPEC. While these are generated in part by some combination of profit maximization, revenue production, and political gain, they clearly have enormous environmental implications. In particular, the resulting prices of gasoline and fuel oil dramatically affect the use of fossil fuels (and indeed, all sources of energy) around the world, which in turn, is related to accumulation of greenhouse gases such as carbon dioxide. In short, we are now living in a world in which a wide variety of public policies and political actions can no longer be treated as

environmentally neutral. Human activity is now on such a large scale that almost everything we do really matters.

Living Sensibly with Uncertainty

A major fast food chain in the United States has with much fanfare recently switched from Styrofoam to paper packaging. Supermarkets across the land now offer a choice of paper or plastic, or even canvas grocery bags. Whatever the public relations benefits of these decisions, the market is also presumably responding to a scientific judgment that paper-based packaging is more environmentally sound than oil-based packaging. Unfortunately, tradeoffs between paper-based and oil-based packaging are very complicated. The production of paper from wood pulp requires a lot of water (and a lot of trees). And when the paper plant is finished with that water, it is often returned to a local lake or river far worse for the wear. In fact, paper plants are often major polluters because of a variety of toxics include dioxin. Then, rolls of paper are heavy, which means that powerful trucks burning lots of diesel fuel are required to get the paper to the factories in which the packaging is made. In short, when all of the environmental consequences are considered as best we know how, paper is not always a better packaging material than plastic. A lot depends upon the particular technologies used.

Such uncertainties are compounded when science is required to look into the future. Perhaps the best illustration is the current debate about the enhanced greenhouse effect. There is no doubt that the presence of certain "greenhouse gases" such as carbon dioxide, methane, and water vapor trap some of the incoming energy from the sun and help keep the temperature on the surface of our planet within very narrow bounds. What is not so clear is whether the buildup of greenhouse gases in the atmosphere since the industrial revolution could lead to global warming, and if so, how much how fast. There are many reasons for this uncertainty including considerable scientific ignorance about a host of key climate processes, such as the role of clouds. On the one hand, clouds reflect substantial incoming energy from the sun back into space. On the other hand, clouds help trap the solar energy near the earth's surface. The net role of clouds, therefore, depends on the balance between these two processes which, in turn, depends in part upon how "dense" clouds are.

But more fundamentally, all scientific forecasts depend on the assumption that the future will be a lot like the past. In other words, what one learns from the present and the past can be used to inform us about the future. In the case of the enhanced greenhouse effect, the planet-wide experiment underway is unique. As far as we know, there has never been in the history of the earth so rapid a build up of greenhouse gases. Learning from the present and the past is, therefore, not straightforward. And exactly how one best learns under these circumstances is also controversial.

In short, for many, or perhaps even most, of the environmental problems we face, there will be in the medium term no cut and dried scientific answers: for the impact of air and water pollution on health, the tradeoffs between economic development and environmental quality, the relative benefits and costs of different mixes of transportation for urban areas, and so on. The best one can hope for is that the balance of scientific evidence falls in one direction or another.

Conclusions

The enormous complexity and uncertainly that is pervasive in current scientific thinking about the environment is daunting not just to scientists, but to policy makers and the public at large. Are there any conclusions that can be drawn?

First, this is a very exciting time to be a scientist, but a very frustrating time as well. Environmental issues bring to the scientific community a virtual candy-store full of interesting and important questions. At the same time, for many of the reasons briefly discussed above, progress will be slow.

Second, it cannot be overemphasized that the planet is constantly changing and has been changing as far back in time as there are data. And human activity has altered the planet over the course of thousands of years. So, we can't go home again because we don't know the address. There is no "pristine" and "stable" state that we know about, even if we had the transportation to get us back there. We must learn to live with a changing environment; we must monitor these changes, understand these changes, sensibly influence these changes as best we can, and continually adapt as well. Third, implied therefore, is a mix of environmental strategies. There will be no simple answers and no person or group with them all. For example, it would be just as stupid to rely totally on free market solutions as to totally ignore them. We must learn to operate in a policy world that is as complex as the natural world in which we must live.

Fourth, as viable policy options become clear, we should launch the easy ones first. That is, it is probably not wise to wait for some kind of total package, even if one could ever be produced. While this is not without risks, the ratio of projected benefits to costs will often be highly favorable. Perhaps the best illustration is the recent international agreement to phase out CFC's.

Fifth, it will often be possible to adopt improved environmental policies that are justified on other grounds. That is, some sound environmental policies may be sensible for other compelling reasons. For example, it will often make good economic sense to replace older, energy-inefficient technology with the current state-of-the-art. This is in part what is driving some recent announcements by the Utility Industry in Southern California; they can do well by doing good.

Finally, the general shape of environmental policies must be altered to reflect the nature of environmental problems: our policy horizon must lengthen dramatically, we must look over and around political boundaries, we must appreciate policy spill-over effects and we must learn to live with substantial uncertainty. For example, it is highly unlikely that any international accords on limiting carbon dioxide emissions will succeed without a long term plan to compensate less developed countries for their costs.

In conclusion, scientific perspectives on the environment are actually quite different from those common a generation ago. We are much smarter than we were. We are also much more humble about what can be learned. And the same holds for the public policy. We are much wiser about the job to be done, but its enormity is daunting indeed.

---

*Professor of Sociology and Social Statistics, Department of Sociology, University of California, Los Angeles

[1] Marsh, G.P. (1864). *Man and Nature* (reprinted 1965 and edited by D. Lowenthal). Cambridge, MA: Belknap Press.

[2]Thomas, W.L. (1956). *Man's Role in Changing the Face of the Earth.* Chicago: University of Chicago Press.

[3]Carson, R. (1962). *Silent Spring*. Boston: Houghton-Mifflin.

POLICY INTERACTIONS IN JAPANESE FOREIGN AFFAIRS

by
Susan J. Pharr*

I will focus on two areas of policy in Japan's foreign relations and in U.S.-Japan relations that present potential conflict. The two areas are Japan's security policy, as it has developed in Japan in the context of the U.S.-Japan Mutual Security Treaty since 1951, and Japan's foreign assistance policy in the Third World. My thesis is that, until the late 1970s, these areas existed largely independent of one another, but that since then they have become interlinked and, as a result, are in increasing conflict both in Japan's domestic debate and in U.S.-Japan relations.

Japan's security policy can be traced back to the U.S.-Japan Mutual Security Treaty, which ostensibly dealt with security issues alone. The treaty extended the U.S. nuclear umbrella over Japan, provided U.S. bases there, and paved the way for Japan's Self-Defense Forces, which were established in 1954. The treaty rested on Article 9 of Japan's 1947 U.S.-written constitution, which prohibited Japan from the right of belligerency. The security framework that evolved in the early postwar years, then, represented a structured asymmetry in which the U.S. assumed the primary responsibility for Japan's defense. There were, of course, broader implicit assumptions operating in the security framework that evolved from these beginnings. Certainly, the treaty brought the Japanese into the cold war and made Japan a member of the U.S. camp, and thus a political ally. From early on, the agreements accompanying the treaty restricted Japan's economic and political relations with China and the Soviet Union. Nevertheless, its focus was mainly military security and -- of relevance to the present discussion -- except for making the communist countries off-limits, it was not thought to impinge on how Japan might set about establishing policies for economic relations with the developing world.

The second area is Japan's foreign assistance policy. This area of policy began as a "backwater" area of activities carried out largely in Asia as part of reparations agreements with those countries subject to Japanese imperialism prior to and during World War H. The policies that Japan developed in the early stages were dictated primarily by economic criteria. Initially, Japanese business pressed the government for the settlement of reparations disputes because it saw that there were advantageous contracts to be won in the Third World. The newly formed MITI (Ministry for International Trade and Industry) and Japan's private business sector played major roles in forging postwar economic assistance policies, and in the course of this they emphasized economic criteria for aid initiatives. The criteria in part had to do with Japan's economic needs as a postwar trading economy. As a result of this legacy, many in the Japanese private sector and economic ministries even today think of aid as tantamount to a "trade tax" paid out in exchange for market access, access to raw materials, and foreign direct investment opportunities. Implicit in Japanese aid giving, however, was also a theory of Third World development that has wide support in Japan among development professionals. Aid is seen as promoting economic stability and growth, which in turn lead to increased economic self-reliance in recipient countries; economic self-reliance, in turn, is seen as leading ultimately to still greater prosperity and eventually to increased democratic political participation. In general, this was the model underlying the linked processes of economic growth and democratization just described by Dwight Perkins. I am suggesting that it has been the model guiding the Japanese aid program. In this model, economic prosperity is thought to precede and

ultimately promote democratization, so that, in the first stages of aid giving, concern about political arrangements -- whether the country is authoritarian, socialist, or communist -- misses the point. What matters is whether sound economic growth can be fostered and promoted by aid policies. Preceding from such a view, Japan has been quite prepared to give aid to socialist countries as soon as relations were restored with them, and Japanese aid officials have often been critical of U.S. aid policies that have routinely put political criteria before economic ones and that have applied political litmus tests regularly -- for example, by being prepared to cut off aid if a socialist government came to power in a recipient country. Thus after Japan normalized relations with China in 1972, it (unlike the U.S.) provided aid, and it followed (again, unlike the U.S.) with aid to another Asian socialist country, Laos. Discussions are now under way which, if successful, will open the door to aid to North Korea.

These two spheres of policy -- security policy and foreign assistance policy -- functioned relatively autonomously until the late 1970s, and were thought to have little to do with one another. Why did they come into conflict? The U.S. relative economic decline and its consequences are key factors. Japan's economic rise in the 1970s led to the expectation from a post-Viet Nam War U.S. that Japan should do more for the rest of the world. As trilateralism emerged, European countries added pressures of their own. Initially, U.S. "burden sharing" pressure involved an accelerated effort (that had begun in the early 1950s) to get Japan to pay more for its own defense. The potential for policy conflict began to grow as the concept came to include additional public goods, notably foreign aid. By the 1980s, for example, the U.S. was approaching Japan to extend more aid to Pakistan, a country that the U.S. regarded as important for its policy of containment. In U.S. policy, Japan's defense and aid policies increasingly were seen as interlinked and potentially in the service of U.S. objectives. Meanwhile, because U.S. pressure on Japan to do more in the world was strong, and because Japanese domestic support for aid giving was solid and far greater than support for defense spending increases, it was in Japan's interest to argue that its aid giving was, in effect, a public good that contributed to Western security in a broader sense. "Comprehensive security," a concept put forward by Prime Minister Ohira in the late 1970s, formalized this broader view in which aid was seen as in the service of both Western and Japanese security interests.

On the U.S. side, requests to Japan for "strategic aid" initially were focused on asking Japan to extend support to countries that the United States thought important for Western security objectives. By the 1980s, the logic of considering aid as a means to achieve security pressed Japan to impose political conditions through its aid programs. Japanese aid officials who had once been privately critical of U.S. aid for being driven by security concerns, and who, for reasons quite consistent with Japan's early aid and development philosophy, were perfectly prepared to see aid go to socialist countries and to avoid political litmus tests, gradually were under pressure in the 1980s to follow the U.S. lead and impose political conditionality on foreign assistance decisions.

Areas of current and potential policy conflict are numerous. For example, within Japan's aid establishment, many officials -- especially within MITI -- would like to see Japan spearhead a Yellow Sea of Japan economic zone that would develop the Soviet Far East and link it to North and South Korea, China, and Western Japan. Such a plan, which

treats politics as secondary and emphasizes the economic benefits to all parties, is fully consistent with Japan's economic assistance thinking. Some would argue that it represents a remarkably creative way to break down cold war demarcations and provide growth to the region. However, the increasing interlinkages between aid and security policies make such a policy controversial, since it potentially strengthens the Soviet Union (or at least the Russian Republic), and North Korea. Even if the Japanese can iron out their domestic differences over a Far East economic zone, they have lost leverage for embarking on the plan in the face of potential U.S. resistance because of their moves in the late 1970s and since to treat and justify aid as a Japanese contribution to Western security, thereby opening themselves to Western pressure and criticism if the U.S. -- as is likely -- frowns on such a plan. Another potential conflict is likely to arise over whether or not Japan should extend bilateral foreign assistance to North Korea and Viet Nam. Officials who take the classic Japanese development approach are quite prepared to move forward with aid as soon as possible, now that the cold war is over and both countries show signs of seeking help. More investment and greater economic growth in these countries, they argue, would inevitably in the long run lead, in a pattern similar to that described by Dwight Perkins, to greater democratization, and would be economically stabilizing to the region. In their efforts to pursue such policies they are now pressured by domestic and U.S. opposition on security grounds as a result of the policy conflict I have been describing.

So, then, how are policies being reconciled in these circumstances of conflict? The traditional Japanese development view, emphasizing as it does strict economic viability criteria, is giving way to a compromise position that there must be at least some measure of political conditionality. According to new guidelines announced in April 1991, Japan in giving aid will now weigh four aspects of a recipient country's policies: whether it is producing weapons of mass destruction; its efforts to promote democracy; efforts to adopt market-oriented reforms; and the recipient's human rights record. [1] The adoption of democracy-related criteria represents a victory of the Ministry of Foreign Affairs, which generally plays the role of pressing Japan to meet Western expectations, over the economic ministries, notably MITI. Following the logic of linking aid and security, there is also active discussion -- in this case, over the objections of the Foreign Ministry - - of taking into account a country's military expenditures in deciding aid. These new and proposed policies will present numerous problems to officials trying to implement them. Two of Japan's top recipients -- China and Pakistan -- have huge military outlays, and, meanwhile, the difficulties of deciding aid for countries like North Korea and Viet Nam will be made far more complex by the existence of such guidelines.

There are numerous areas of potential Japanese conflict with the U.S. to contemplate. A policy of linking aid and arms purchases, for example, could bring Japan into conflict with the United States if Japan refuses to extend or increase aid to U.S. allies in the Third World which seek to make American arms purchases.

There is a growing recognition in Japan that the foreign assistance and security policy spheres will increasingly interact, and that Japan's image internationally will be affected by the outcome of the conflict resolution. There is a great deal of debate within the Japanese government and society on these issues, and it seems that there will continue to be so in the coming months and years ahead.

Is the growing tendency to impose political conditionality a good thing or a bad thing? The answer to this depends largely upon whether you agree or not with a particular type of

conditionality. In principle, all of them have appeal. Most would agree that Japan's recent statements that it would condition aid to North Korea on nuclear site inspections are sound and prudent. Those who support moves to contain Third World arms spending will applaud Japan's new initiative in that area. However, those who see U.S. aid as mired in security preoccupations and fraught with contradictions as a result, may wonder if Japan is heading down a slippery slope. It is also worth noting that Japan's traditional development philosophy aimed at promoting economic self-reliance and growth is close to that of many leading development institutions, such as the World Bank and IMF. To such institutions, economic conditionality obviously has been paramount, and a great many development professionals have been critical of U.S. aid for its overuse of conditionality. Will the Third World development be advanced if Japan, the number one aid donor, increasingly joins the U.S. in setting political conditions for aid?

One further problem with Japan's increased use of political conditions is that potentially it undermines domestic Japanese support for aid. Up until now there has been broad support in Japan for foreign assistance to achieve Third World development. The public generally loses enthusiasm for aid to the extent that it is seen as pursuing primarily political rather than economic goals, especially if Japan is seen as following the U.S. lead. To the extent that political conditionality seems to gain the upper hand, the popular consensus in favor of foreign aid programs may be at risk.

---

* Edwin O. Reischauer Professor of Japanese Politics; Director, Program on U.S.-Japan Relations, Harvard University.

[1] Japan Economic Survey, May 1991, p. 15

POLICY CONFLICTS IN THAI DEVELOPMENT*

Thailand is a country of 55 million people with a relatively diverse economy. It has had seven or eight years of really stellar growth. Since 1985 it has experienced an annual growth rate that has not dipped below 8.5% in real terms. It is currently growing at about 10.5% per annum, and the key problem is how to restrain growth below about 10% or 12% through the rest of the decade in order to keep inflationary pressures in check. In short, this is a country in the "steep" part of the "Korea curve," with very impressive growth.

This growth is, nevertheless, relatively recent. After going through the 1960s and 1970s with relatively moderate growth there was a period of substantial structural adjustment and economic change in the early 1980s. During this period, growth was lower; there were many bankruptcies and much unemployment. The World Bank was thoroughly involved in the structural adjustment of the early 1980s in a constructive way, and now the Thais are so successful that they do not need such international economic advice any further.

The features of this economy of rapid growth can be summarized briefly: in 1987 agriculture accounted for 16% of GDP; industry for 35%; the rest, roughly half of the economy, was in the service sector (government and economic services broadly defined). In this sense Thailand was a classic case of a "lower-middle income" developing country. The World Bank projections, however, are that by the year 2000, the 16% in agriculture is going to be below 9% while the 35% in the industrial sector is going to expand upwards towards 50% of the country's GDP. In other words, Thailand is going to look like Korea in about eight or nine years time, in terms of the shape of its national economy.

In addition, about 55% of the GDP of Thailand is produced in the Bangkok area -- the primate metropolitan region of the country. Bangkok is thirty times the size of the next largest city, Chieng Mai. Bangkok officially has six million people, but most of the unofficial estimates place it closer to 10 million. Moreover, the income distribution is poor and it is getting worse. So far, distributive equity has not been a major problem because the "rising tide has lifted all boats." Absolute poverty has probably not expanded, but the relative poverty has probably increased over the last ten years of remarkable economic growth. To some extent, these trends of economic growth and concentration of activity on Bangkok were foreseen, but the pace and scale of growth has come as a surprise to most observers. In part, the Thai achievement was possible because of the rising Japanese and Korean wage rates, which gave Thai manufacturers an added advantage of relatively lower wage costs; and these kind of exogenous factors were not fully foreseen.

In terms of the wealth-generating concentration in Bangkok, it is true that some warnings were given as long as ten or fifteen years ago. In fact, some economic policies have been specifically tailored to favor rural development, in part to counteract this growing urban concentration of activity. Nonetheless, the pace of growth outstripped the capacity to foresee it and plan for it.

Another characteristic of the Thai pattern of growth over the last ten years has been that it has been a very aggressively private sector growth in manufacturing. A lot of it has been undertaken with foreign investment from Japan and Taiwan in light manufacturing and assembly

plants. That is beginning to change towards medium and even some heavy manufacturing, which will be more capital intensive. So far, however, the current economy is characterized by light manufacturing which has been employment intensive and not very land intensive. As a result, so far it has been possible to sustain this kind of manufacturing near the big city and the port, without the need for large, new industrial sites.

This sketch of the Thai economy emphasizes its recent surge of manufacturing strength, but the agricultural sector was not entirely ignored in the process. Over the same period of economic growth in the 1980s characterized by the expansion of manufacturing, Thailand nevertheless became a major exporter of rice. Agricultural policies were not neglected. Thailand became the largest exporter of rice to South East Asia, parts of Asia, and parts of Africa as well. This growth was in part due to foreign exchange policies, for which international advisors can claim some policy credit.

In addition to these striking economic features, it is important to realize that Thailand is also a country that has been dominated by the military since the end of the monarchy in 1932. Until 1932, everyone had to approach the royal throne on his belly. In 1932 there was essentially a constitutionalist military coup, which set the pattern for military domination that has endured to this day. In the last few months there was another coup, but this coup was quite "polite." In effect, the Thai military has closely entwined itself with the royal family and royal hierarchy, and it is carefully integrated into the key social institutions.

In the last ten years, the military has sought to diminish its overall presence in Thai civil life. But at the same time it has sought to assert its absolute control over security issues involving 1) counterinsurgency, on the one hand, and 2) foreign policy, including Cambodia's relations and relations with China. The military has been very careful to control the policy towards the "South East Asia" mess, including Viet Nam, Laos, and Cambodia and to control the relations with China. In the realm of counterinsurgency, there is a significant synergy of policy goals involving effective interaction among the policy arenas of economic development and internal security. That is, there has been a significant shift by the military to move away from the command and control strategies of the Viet Nam era, and develop a policy instead that is designed to improve the economic plight of rural areas. The military has become a very strong force in favor of rural development. They have favored land reform in some of the poorer areas, promoted public works, decentralized industry away from its concentration in the Bangkok region. Policies of economic development have been the result of an explicit effort by the military in order to make it easier to control rural populations.

A further aspect of the relationship between the dominant military institutions and the rapid pattern of Thai economic growth has been that the military has sought to assume a very strong strategic position in the economy itself. First, it has been very powerfully represented in the state enterprises. Military officers are directly involved in the state owned firms. Secondly, the military has sought to give prominence to several highly publicized economic development projects, including the "eastern seaboard project." This project, about which there were serious reservations, is intended as a heavy industry project with steel, petrochemicals and fertilizer plants, among other elements. Promoted by the military, it is to be located on the eastern seaboard of the Gulf of Siam. Thus the military in this sense is taking a clear initiative in promoting certain forms of economic development.

In addition, the military is now undertaking a very explicit effort to align themselves with the symbolic cultural and religious traditions of the country. The media is filled with accounts of Thai military leadership visiting various Buddhist religious leaders, and there is an attempt to present themselves as guardians of traditional Thai values as well as the guarantors of equity, fair play and appropriate public morality.

Most of the rank and file of the military, though not its officers, come from the rural areas. The strong appeal for development and improved infrastructure in the rural areas may in this sense an expression of genuine concern for rural living conditions. In any case, much of this effort has been successful, and there is now a broadly based acceptance of the military's intervention in politics, including the most recent coup. This represents a marked contrast with circumstances in the 1970s, when after a military coup in 1976, the military itself was regarded as a force in brutal opposition to the people.

In terms of economic development, there is a broadly similar outlook on the part of both the government and the military, favoring private sector led economic growth in middle level manufacturing. But within this broad consensus, there are some critical conflicts emerging. First, there is a big debate about the spreading versus the concentration of wealth. Some of this reflects a rural versus urban split, but there is an income distribution element, a social and cultural element and environmental element to this debate as well.

Secondly, there is some question emerging concerning the cultural impact of the recent pattern of rapid economic growth. There are now numerous foreign influences in Thailand as a result of its remarkable growth. In addition to the opening of a McDonald's in Bangkok, there are now numerous tourists, and the presence of Japanese is more and more pronounced. Local populations become understandably resentful over the amenities provided for tourists and foreigners when the conditions of living in some sections of Bangkok itself are taking on horrific proportions. Escalating land prices are making it hard for Thai residents to survive and sexual mores associated with the development of the tourist industry have provoked a debate over "national character" and cultural identity. It is for this reason that the military have taken great pains to associate themselves with personages and symbols of Thai tradition.

Under the pressures of rapid economic growth, therefore, Thailand has experienced the increased interaction of policy initiatives from the four different sectors that Montgomery has outlined, but the intensity of the interaction has not been uniform, nor is it clear that the relatively synergistic interactions that have characterized the relationship between security concerns and economic development can continue under the cumulative pressure of this kind of rapid growth until and beyond the end of the century. There has been a concerted effort of the military to identify itself with the traditional symbols and key figures of traditional Thai culture, but at the same time the military has been a strong force promoting the kinds of economic development which have been seen to challenge traditional cultural and social mores.

The interacting policy arenas which hold potentially the most prospect of conflict in the coming years are those between economic development and the environment. The military has recently moved to ban tin mining and logging. But both these activities have been a profitable part of the economic growth that the country experienced in the last ten years. How many more

environmentally protective steps can it take before these moves challenge or are perceived to challenge strategies of economic growth?

Montgomery's schema for considering policy interactions and the resolution of policy conflict is quite helpful in reflecting upon the numerous features of Thai society in the coming decades. If, for example, the economic development policies *cannot* sustain the recent pattern of growth, what will be the social and security consequences of the increase in income disparities which these policies also enhanced? How can any regime deal with the environmental and infrastructural problems of a city like Bangkok which is growing at seemingly uncontrollable speed? What will happen in the realm of education and cultural policy if the established pattern of Japanese and Taiwanese investment continues to fuel an export-oriented economy with a continuously expanding tourist industry? Could a "nativist" cultural reaction to the rapid social and economic change set in, especially, if the phenomenal rates of growth that have characterized recent years cannot be sustained until the end of the century or beyond? These and many other questions can be fruitfully addressed as examples of policy conflict resolution which, in the years and decades ahead, will come to express the values inherent in Thai society.

---

*Author requests anonymity because of official position.

CONTRARY CONSEQUENCES OF "AFFIRMATIVE ACTION" IN MALAYSIA

by
Milton J. Esman*

Affirmative action is officially sanctioned and officially implemented preference for members of ethnic communities deemed to have been disadvantaged economically and educationally by previous patterns of group discrimination and denial of opportunity. There are two underlying premises: first, that the elimination of discriminatory practices is necessary but not sufficient to achieve the goal of social and cultural integration; and second, that individual meritocratic and market competition would actually exacerbate existing disparities between groups because groups that were initially advantaged will gain even more advantage in straightforward meritocratic or market competition.

The concept of the Pacific Basin is so broad that it would have been possible to examine the cultural policy of affirmative action in a wide variety of contexts. In India, for example, a government recently fell in 1990 in part over the policies of differential preference proposed to accommodate disadvantaged or "backward" castes. On the other side of the Pacific, it would have been possible to examine preferences for French-speakers in Quebec. Or for that matter, since the United States is a Pacific rim country, we could examine the patterns and consequences of affirmative action within this country. But because it presents such a striking case and because of my own experience in Malaysia, I will confine my attention to examining the Malaysian "New Economic Policy" (NEP).

The NEP went into effect in Malaysia in 1971. It was an attempt to reconcile four different goals: 1) the goal of economic growth; 2) the goal of achieving greater inter-ethnic equity in the distribution of economic assets, income and opportunities; 3) the goal of alleviating poverty; and
4) the goal of national unity, committing all ethnic groups to the existing policy and polity. The NEP was devised as an attempt to optimize the realization simultaneously of different and perhaps incompatible goals.

Only 20 years ago, the Malaysian economy was characterized by a marked ethnic division of labor. The modern economy in Malaysia -- the banks, the factories, the plantations, the trading houses -- was owned and managed either by foreigners or by non-Malays. Malays generally occupied unskilled jobs in urban areas or were small-holder rice farmers, rubber growers or fishermen in rural areas. In the realm of skilled labor, the electricians, the automobile repairmen, and the office workers were nearly all foreign. Overseas Chinese comprised about 35% of the population, but they owned and managed a much larger proportion of the modern economy than their numbers would suggest. In addition to this ethnic division of labor, ownership and opportunity, there were also income disparities and class differences within each ethnic community. Thus, there were some rich Malays and some poor Chinese, even though the major distribution of wealth and skills ran in the opposite direction.

Despite this pattern of control in the economy, the Malaysian government was securely under the control of the Malay majority. At the end of the period of British rule when Malaya, Malaysia's predecessor, received its independence in 1957, there existed what came to be known as "the bargain," an informal but binding understanding between

the Malay elites and the leading Chinese businessmen. This bargain consisted of a working agreement to the effect that Malays would control government, Islam would be the national religion, Malay the national language, and Malays would dominate the military and the senior civil service. All of this was agreed upon in exchange for the understanding that non-Malays would be awarded citizenship and that the Chinese business community would be assured freedom of enterprise. The agreement was encapsulated in a consociational agreement and formalized in the Alliance Party, in which three "races" were represented: the majority Malays; the large minority of overseas Chinese; and a smaller Indian community. According to this arrangement, each ethnic group, through its leaders, could exercise a veto over policies that adversely affected its vital interests.

This consociational agreement continued in effect until 1969, when in a general election the Alliance Party suffered a setback, and the system broke down. This collapse resulted in civil violence, especially around Kuala Lumpur, and a dictatorship was temporarily established by the Malay elite. They explained the collapse of the consociational agreement as a rebellion of the majority Malay population against the intolerable ethnic disparities within the economy. Malays felt themselves to be in a weak, vulnerable and declining economic situation. Their belief was that unless something radical were done, the Malay population would become like the native American peoples in North America, the hewers of wood and drawers of water for an economically and eventually politically dominant Chinese population. Further, they believed that market processes alone would simply exacerbate these economically based ethnic disparities. Therefore, the Malays reasoned, positive government intervention was needed.

The Malay elites, counseled at the time by the Harvard Development Advisory Service, faced a number of alternatives. First, it could have simply confiscated foreign and non-Malay properties and nationalized them or distributed them among Malays. This policy option was rejected, in part because it was recognized that this would fatally discourage future foreign investment. Secondly, other groups argued for a policy of uplifting the "have-nots" of all Malaysian ethnic groups by reaching out to the poorest regardless of "race" to insure that their basic needs were met. But this anti-poverty approach was rejected because, while many Malays would have been helped, this policy would have left unaffected the basic issue of asset ownership and management in the modem sectors of the economy.

A third alternative policy that was finally decided upon and implemented was to emphasize overall economic growth, but to use the increments of economic growth to address inter-ethnic inequities by distributing these increments differentially among the various ethnic communities. No assets would be taken from those who already had; the strategy would rely on rapid economic growth, but channel the benefits of new growth towards the relatively underprivileged ethnic Malays. This was considered a "positive sum" outcome. No ethnic group or individual would be penalized; everyone would benefit, even if at somewhat different rates.

Thus, the explicit goals of the New Economic Policy (NEP) which went into effect in 1971 were threefold: 1) eliminate the identification of race with economic function; 2) alleviate poverty among all races; and 3) promote national unity. The NEP not only had goals and a strategy, but in addition explicit numerical targets were established: Within twenty years there would be a substantial shift in the ownership of assets in the modem sector of the Malaysian economy. In 1971 the Malays owned 2% of these economic assets, while ethnic non-Malays owned roughly 30% and foreigners owned the remaining 68%. The goal was to shift these

proportions by 1991 so that Malays would own 30% of the assets, the non-Malays would own 40%, and the proportion of foreign ownership would be brought down from 68% to 30%. In addition to ownership, the intention was to address the problem of management as well. The goal here was that the different ethnic groups should participate in managerial roles in rough proportion to their percentage of the total Malaysian population.

As for the means of achieving these goals, the Malaysian government proceeded to buy by negotiation or stock purchase many of the economic assets in the modem sectors of the economy. The government acted as trustee for the majority Malays, purchasing assets on their behalf and operating them until they could be privatized. In this way the government purchased the large rubber and oil palm plantations from mainly British owners and transformed them into publicly owned enterprises.

In addition, the government established financial institutions -- in particular, the Bank Bumiputra, that is, the Bank of the Indigenous People. This bank made capital available to allay entrepreneurs on generous terms to start new businesses or buy out and operate existing enterprises. For example, it became possible for an individual I know, a former academic, to obtain loans to buy the Kentucky Fried Chicken franchise, which now includes 63 outlets. He has become a very prosperous person.

A third initiative the government took was to establish and operate a series of public sector enterprises, the leading one being the National Petroleum Corporation. Before the NEP ethnic Malays did not have much opportunity to acquire or develop managerial experience in financial, manufacturing or commercial activities. These government enterprises provided that opportunity, and ethnic Malays were given preference in hiring for positions within these public sector firms.

A fourth provision of the NEP was that all new enterprises, especially foreign owned enterprises, were required to sell a certain portion of their shares to Malay individuals or entities. If individual investors were not forthcoming, the government intervened directly. This insured that new assets added to the economy would in some measure benefit the Malay population. The government was the intermediary and the trustee on behalf of the Malays in acquiring these assets.

A fifth dimension of the NEP was that government contracting and purchasing should operate preferentially in favor of Malay contractors and providers of goods and services. Thus, normal government spending had the effect of supporting further economic advancement and managerial experience for Malays.

In addition, all industries were expected to train Malays for management roles. Goodyear Rubber, for example, in order to open a plant in Malaysia, had to offer a substantial block of shares to a government holding company and agree to hire and train Malay managerial personnel. This expanded the cadres of Malay managers that had previously been confined to government. There had been (and remain) constitutionally sanctioned preferences for Malays in the higher civil service, the military and the police.

Finally, the NEP institutionalized a substantial preference for Malay applicants in the institutions of higher education. Since meritocratic criteria alone would have disproportionately benefited the overseas Chinese, a preferential regime was instituted to enable Malay students to enter and graduate from the expanded university system so that they could enter the professions or qualify for either public sector or private sector managerial positions. Many Chinese families were compelled to send their children

overseas for their higher education, because even though they had scored higher on entrance exams, preferential treatment (reverse discrimination) for Malays denied them entrance to local universities.

It is important to realize that throughout its implementation the NEP was characterized by flexibility, especially in regard to foreign investors. In effect, many things could be negotiated, as long as they seemed to lead to the right kind of outcome. In the early 1980s there was a growth Pause in the Malaysian economy, and for a few years the economy actually experienced negative growth. The government confronted this situation realistically, and modified Malay preference policies in such a way as to emphasize the overall priority of promoting economic growth. The goal of growth temporarily displaced affirmative action for Malays; Malay preference was modified in order to continue to attract foreign investment.

In terms of the goal of lifting the very poor from their state of poverty, the government counted upon the employment effects of rapid economic growth to draw the rural poor into modern, higher productivity employment. The strategy was not one of asset redistribution in favor of the poor. There was no land reform, despite the pronounced asymmetrical pattern of land ownership in rural areas. The reason was simple from a political point of view. The Malay elites in rural areas would probably not have continued to support the United Malays National Organization -- the dominant Malay political movement -- if land reform had been a government priority. As a result, the government did not pursue this method of alleviating rural poverty. Instead it counted on a rapidly growing economy and the employment opportunities created in both the public and the private sectors by the NEP policies.

What were the consequences of this cultural policy for the evolution of the economy? Twenty years have elapsed, and it is possible to measure the initial targets of the NEP against the actual performance results of the Malaysian economy. We can now provisionally evaluate this ambitious exercise in social engineering.

First, it is clear that there has been a substantial shift in the ownership of Malaysia's economic assets. Malays now own in the range of 21% or 22% of the economic assets in the modern sectors of the economy. This is significantly greater than their former 2% ownership in 197 1, but it is also short of the goal of 30% targeted at the time. It is now likely that non-Malay interests own nearly 50% of a much larger economy because the share of "foreign" owned assets has fallen very considerably. It should be pointed out, however, that the largest block of assets nominally in the hands of Malays, in fact remains under government control. The state is having difficulty attracting Malays to invest in these assets. There is an emerging group of "Bumiputra capitalists," but they are skewed toward dependence on and close association with government. There is still only limited "bottom up" Malay entrepreneurship. Most of the small and medium sized manufacturing firms are still owned and run by Chinese. In fact, achieving this kind of transformation becomes more than a purely economic problem, for it involves a major cultural change for Malays to become risk-taking entrepreneurs and managers, especially in competition with the Chinese.

It is true, however, that Malays are much more active in management roles. The National Petroleum Corporation is in the hands of Malays, and its officers and staff are comfortable and competent as managers -- nearly impossible to imagine twenty years ago. As a partial result there are increased disparities of income within the Malay community. Some individuals earn substantial incomes, but there are still significant pockets of rural Malay poverty. While the

over all incidence of absolute poverty has been significantly reduced, perhaps 30% of the rural Malays still live in poverty.

Among non-Malays there is considerable cynicism and disaffection. They feel that the practice of Malay preference has been discriminatory towards them, and that they are forced to compete economically against the government. None of their assets have been taken away, -- indeed their wealth and incomes have expanded with Malaysia's sustained prosperity -- but they have been denied the opportunity to move into important new areas of economic activity. Further, they feel discriminated against in the educational system and powerless politically. The consociational system of consensus politics is gone, where they were able to veto measures that they considered threatening to their vital interests. Instead, Malays control the political apparatus, setting economic policy without even consulting them. While there has been a succession of relatively moderate and tolerant governments that have not mistreated non-Malays, there is a fear among Chinese that this might not always be the case -- that if, perhaps, Islamic fundamentalism were to gain political ascendancy their security in the Malaysian system might prove to be precarious indeed. Many non-Malays feel that they are now politically powerless, second-class citizens.

As a final theme, I think all observers would agree that without the New Economic Policy, Malays could not have achieved anything approaching the empowerment and economic progress that they have actually experienced. Even though not all its goals have been attained, the NEP's achievements have been impressive. The NEP is the most far-reaching and comprehensive effort at affirmative action that I know of, and on balance it has succeeded impressively in its goals. It has generated palpable tensions, that may yet compromise its achievements, but it must be evaluated as a successful exercise in social engineering.

The twenty year performance the NEP as demonstrates a *de facto* hierarchy in values. It is most instructive to pay attention to behavior rather than rhetoric when it comes to appraising values. There has been a continuous tension between the goals of economic growth, the alleviation of poverty, the achievement of unity, and the redistribution of assets and economic power. Clearly the dominant values have been economic growth and redistribution of assets. The subordinate values, on the other hand, appear to have been those relating to the elimination of poverty and national unity. The latter goals were not entirely ignored, but in operational terms they proved to be secondary to the pursuit of economic growth and redistribution of economic power. Security was not a major problem in the period of the New Economic Policy, and the military did not play a big role in it.

Educational policy and language policy were quite complex, playing a substantial role as part of the transformation envisioned by the New Economic policy. Before 1969 education was offered in English, Malay, Mandarin and Tamil at the elementary level; English and Malay at the secondary level; and English only at the university level. Since 1969, elementary education has been offered in Malay, Mandarin and Tamil, but no longer in English. Furthermore, secondary and university education are now available only in Malay. Malay became the sole official language of government as well, a policy in which non-Malays have acquiesced without enthusiasm.

Language policy is a source of tension among the ethnic groups. Currently Malays account for about 52% of the population; the Chinese are 34%; Indians account for 10%;

and roughly 4% are composed of "tribals" and other ethnic minorities. There is fear of Islamic fundamentalism emerging as a political force. In recent elections the majority of the non-Malays voted against the "National Front," the government party in which non-Malays are nominally but not effectively represented. The political future remains uncertain, particularly if it proves impossible to sustain the rapid economic growth that provided the NEP with the resources needed to help Malays without penalizing non-Malays. Up until this point, there have been considerable synergies between the policies of Malay cultural advancement and those of Malay economic progress. In the future, however, there may well be more pronounced tensions emerging from the interaction and conflict between this arena of cultural and educational policy and economic development policy, especially if the recent growth rates cannot be sustained.

---

*John S. Knight Professor of International Studies, Cornell University.

RESEARCH NEEDS IN POLICY INTERACTIONS

by

John D. Montgomery

The preceding papers display a wide range of approaches to policy interactions, all of which are useful and valid. There is as yet no integrating theory to define their relationships and explore them.

The Pacific Basin Research Center proposes some modest beginnings in this direction. The foregoing papers, which were generated for its March and April, 1991 meetings, are intended to be illustrative only. Perkins' projections of the conflicting demands of population and development, in the face of environmental constraints, demonstrated the urgency of dealing with some of the predictable consequences of major policy interactions. Berk drew on empirical studies of population and behavioral interactions to reinforce the argument for timely policy interventions. Pharr's historical study of conflicting purposes propelling foreign policies affecting development dramatized the difficulty of applying unbounded rationality to large-scale solutions aimed at international behavior. The study of how industries and institutions have balanced policy demands and pursued policy opportunities in Thailand provides further evidence about the ways in which colliding and complementary interactions influence planning decisions. Esman's policy history exposed the inherent conflict involved in policies that seek to address ethnic imbalances. Clearly these papers suggest that policy analysts, whose professional inclinations have trained them to ignore apparent "externalities" and "indirect consequences," need to be aware of implications that may turn out to be more important than the "success" or "failure" of the original policies.

On the basis of the Perkins and Berk findings that present population and development policies are failing to produce major changes in human behavior, we may anticipate that new social policies will be required. Pharr projects the need for fundamental revisions in Japanese foreign policy. The Thai study suggests the inadequacy of single-sector approaches to national economic planning, as indeed does Esman's exposition of the indirect consequences of a narrowly-focused social policy.

Most of the specific interactions described here dealt with development policies as they have affected environmental requirements, with an occasional hint that the reverse set of influences may be at hand. They reflected a growing international awareness of the coming need to initiate environmental policies even at the cost of restraining activities in development. The PBRC plans to undertake further studies of policy interactions in the hope of generating new approaches to these troublesome issues. Although at present there is little basis for choosing among the issues posed by the conflicts and synergies of policy interactions, there is a growing international consensus that environmental risks of development and security policies have been too long overlooked, and the Pacific Basin Research Center will begin there.

Mapping Policy Interactions.

PBRC hopes to concentrate on four major policy arenas - national security, environmental protection, economic and social development, and education and culture, since each of these major policy arenas can have some degree of direct or indirect effects on each of the others. The matrix presented in Table 1 will illustrate some of these interactions. The numbered cells represent sets of interactions in which initiatives from the sector listed in the rows come into contact with the policies listed in the columns.

Table 1
Typology of Policy Interactions

Impact

	Security	**Environment**	**Education &Culture**	**Development**
Source				
Security	1	2	3	4
Environment	5	6	7	8
Education &	9	10	11	12
Culture	13	14	15	16
Development				

These interactions may be observed either as conflicts or as complementarities. When they produce new policies, they are not mere externalities or side-effects. Such policy interactions require the creation of new mega-policies or at least modifications in old ones.

Policy Conflicts.

Not all potential policy interactions will necessarily produce significant opportunities for value creation; whether or not they do so is an empirical question. In mapping the potentially important opportunities it will be useful to begin by reviewing the range of possibilities. Table 1 suggests arenas wherein both conflict and complementarity may arise.

One set of cells (1,6, 11, and 16) may be defined as "single-policy" interactions, since they occur within a single "sector," institution, or agency. Cell 1 is a familiar example, in which one arm of the security forces may interact with other branches of the service, threatening strategic policies of both, and contributing to intra-service rivalry over funding or even field operations. Resolving those conflicts is likely to produce changes in both sets of strategic policies or missions. Cell 6 also suggests a familiar experience like the conflict between the policy of disposing of toxic wastes and the use of municipal landfills for the purpose: again, the interaction produces something like the case of inter-service military rivalries, in which one or both of the different environmental organizations involved would be expected to resolve the issue by developing new standards and procedures. Cell 11 is perhaps a less familiar but nevertheless real source of conflict, such as that between educational and learning technologies that undermine the teachers' sense of professionalism and independence. Resistance to the use of radio and TV resources in secondary school teaching has been documented in many countries. Conflicts between language policies and ethnic claims, and between religious and secular ideologies, may also be cited. Cell 16 would suggest an important planner's dilemma, the imposition of inconsistent developmental goals, such as import substitution and the resultant protectionist policies that undermine the competitiveness of local industry.

The expected resolution of single-policy interactions (cells 1,6,11, and 16) is through administrative measures (for example, simplifying the military's decision-making authority by means of a unity of command or coordinating machinery, or changing the motivation of the cadres involved in the conflict; or, at least in cases where secrecy is not required, calling for public hearings on siting issues or on the advantages of technological "fixes"). In a few situations, independent policy analysis may occur outside the jurisdiction of either of the conflicting agencies. A successful resolution might call for an entirely new approach (re-establishing priorities among environmental hazards, for example, by applying public choice theory or determining the consequences of different actions upon competing interest groups and stakeholders).

Multiple-policy (i.e., intersectoral) collisions occur when one major goal contradicts another. These collisions are represented by the cells that cut across sectoral lines, the resolution of which may require (in addition to the steps taken for single-policy collisions) interventions from the political leadership. Cell 2 introduces problems that are likely to be ignored within the military system, as in the case of the Hanford Plant, which served security interests by producing atomic weapons but violated environmental standards when it leaked radiation into the atmosphere. Cell 3, again intersectoral, is illustrated by Japan's unrepentant rewriting of militarist history at the expense of educational policies that called for scholarly

objectivity. At Cell 4, we observe such phenomena as Iraq's relentless military buildup whose ideology and investments weakened equally important investments in education or child welfare. Cell 5 is represented by ecological policies protecting forests, which were cleared near national borders in order to guard against incursions and escapes in Eastern Europe. At 7, recent environmental policies in Thailand interfered with traditional practices when they discouraged slash-and-burn agriculture in order to protect forests. Cell 8 is illustrated by the environmentalists' rejection of economically attractive proposals for offshore oil drilling in New England. In Cell 9 there is the opposition of educational institutions to military initiatives, such as the Oxford and "Veterans of Future Wars" Movements of the 1930s and the anti-Vietnam demonstrations of more recent memory. Cell 10, a contradiction between education and environment, calls attention to what happens when market-oriented policies encourage the commercial media to advocate behavior that degrades air or water quality; Cell 12 is occupied by educational traditions that impede economic progress, such as the alleged tendency to "oversupply" lawyers in U.S. to the detriment of policies favoring economic growth. Cell 13, the impact of economic goals on security requirements, is illustrated by conflicts between advocates of Japanese or German expenditures on national security and the policy of assigning priority to international trade investments; 14 is the familiar case of an economic activity that degrades the environment, such as Love Canal and the detritus created by unregulated tourism in Samoa. Cell 15, a conflict between cultural values and development, is dramatized by Aswan Dam's displacement of populations and ancient monuments in Egypt.

The resolution of multiple-policy conflicts is likely to be much more complex than dealing with intrasectoral issues. The values themselves, and not merely their advancement, are in conflict. Setting priorities among different sectors can be done through budgetary plans, but budgets are an awkward means for changing the consequences of legitimate activities: in many cases, none of the four policy arenas listed in Table 1 can be abandoned, or even seriously reduced, regardless of the drastic negative consequences its implementation may have for policies in another arena. Administrative hierarchies can develop informally among agencies, but sometimes the cease-anddesist orders imposed by a powerful department on its weaker counterparts can be easily by-passed by recourse to the latter's original legislative authority. National security agencies do not always prevail over health ministries. There are no universal preferences among these goals. Political theorists do not recognize a state-based counterpart to Maslow's hierarchy of individual values. Although national security is often presented as an absolute value to which all others are subordinate, in practice the forces associated with development or environment can restrain destructive military practices. The apparent domination of military over other national values is more a result of institutional factors (in national policy-making, soldiers are more influential than teachers) than of conscious value choices.

Multiple-policy conflicts tend to arouse more public interest than single-policy conflicts, and therefore are more likely to have a creative effect on national leadership, sometimes producing new policies in an entirely new arena of concern. For example, collisions between development policies that call for large families, and environmental policies that call for fewer children, may produce, in addition to the conventional approaches to family planning, mega-policies, efforts to improve the condition of women - an educational sector issue - so that both opportunities and choices can be better informed.

Policy Synergies.

Complementarities, like conflicts, may arise in "single-policy" as well as "multiple-policy" forms. Single-policy complementarities occur when an agency in one sector joins with another unit, employing its efforts or techniques to produce a shared good. Cell 1, for example, would describe the results when different security forces collaborate in combined operations, producing a multiplier effect such as that occurring in the Gulf crisis when air power enhanced the power of the field artillery. The strategic policies of both military arms are strengthened in this synergy. An example of Cell 6 is integrated pest control, which brings the technologies of genetics and chemicals to produce better agricultural results at reduced environmental risk, and changes both the operating principles of the agencies in charge and the standards they impose on public behavior. In Cell 11 we would find the introduction of better curricula in math and science through the interaction of university-based research and school-based pedagogy, and Cell 16 would include the application of computer technologies to industry and agriculture, which usually require changed policies in both sectors.

Single-policy complementarities of this type usually produce synergy through the exercise of leadership within the sector or profession undergoing change. Thus there may be modest exercises in multi-disciplinary invention, as when American Academy of Sciences brings together scientists representing different schools of thought to investigate the possibility of developing creative complementarities. In those cases, the resulting synergy is usually treated as an aspect of "professionalism," resulting in greater enlightenment or better practices.

Multiple-policy complementarities occur when direct or indirect consequences of a sectoral activity encourage new approaches or programs. Examples: Cell 2 describes relationships like that between the U.S. Army and environmentalists, when the Corps of Engineers developed and maintained its military capability by constructing public works to protect natural resources in underdeveloped 19th-century America. Both attitudes and behavior were affected by those complementary commitments. Cell 3 would include actions during World War II when the armed forces offered literacy training to unschooled draftees, thereby enhancing both their military usefulness and their future career prospects, and producing new insights into both training processes and social responsibilities. Cell 4 is illustrated by familiar civilian spin-offs of military technology, including preservation of perishable foods. Not only are military priorities affected by such spin-offs, but new civilian industries are created as well. Cell 5 includes environmental policies that enhance security, such as reductions in civilian waste of scarce resources that are required for military operations. In Cell 7 we would find educators re-introducing discarded traditional farming practices in order to take advantage of new technologies of agro-forestry. In Cell 8, there would be examples of policies to increase energy efficiency, such as technologies to reduce carbon dioxide emissions - electric automobiles, for example - which can contribute to economic development and the creation of new industries. Cell 9 would include educational efforts to reduce ethnic intolerance, which in turn would contribute to internal security goals. Cell 10 is represented by educational programs promoting environment-saving behavior in the form of "clean community" movements, involving policy changes in educational institutions as well as local governments. Cell 12 is almost an inherent consequence: education contributes to development, and specific efforts include incorporation of achievement-oriented school regimes. Cell 13, investments in development, can enhance security and even contribute to war efforts, as when the American industrial infrastructure served as the "arsenal of

democracy." Cell 14 would describe the introduction of modem steel production technologies in Pittsburgh, which improved the quality of air in the environment. Cell 15 is illustrated by the use of computer-aided instruction or the invention and deployment of mass communications media which had a positive impact on education. In all of these cases, synergy arises out of political leadership or the influence of "maverick" science and technology more often than out of the individual professions or sectors involved. Synergy is an indirect effect of policies (especially public behavior that responds to new opportunities or requires new investments and creates new industries or social policies).

The Pacific Basin Research Center plans to explore the implications such interactions have for future policy making. Its hope is that such research will produce insights into the processes by which conflicts are resolved and synergies are created.

The plan does not proceed from an abstract set of hypotheses and propositions, though experience suggests some likely relationships. The papers already commissioned display a remarkably wide range of methodological preferences in examining these experiences, while at the same time illustrating some of the problems we identify as policy interactions. Research methodology, as such, is therefore not to be the basis of future PBRC research undertakings. Interactions, and especially the "mega-policies" that are produced by recognition of the problems of policy interactions, will represent the thrust of future plans.

Even in the absence of a basic theory of policy interactions, it may be useful to anticipate some of the processes and outcomes that will emerge from empirical, comparative studies of these experiences. We may expect to find, for example, that

*when policy *collisions* involving two or more sectors have to be resolved by higher authority, the outcomes will reflect trade-offs and compromises generated by negotiation processes.

* when policy *collisions* involving two or more sectors are resolved at inter-ministerial levels, on the other hand, organizational factors such as size, resources, and political clout will dominate the outcomes rather than negotiations strategies or theoretical value hierarchies.

*policy *synergies* resulting from interactions among different sectors may also require resolution at the highest levels of authority, calling for new initiatives as a result of political leadership rather than organizational politics, in which rise they are likely to produce innovative social policies.

*finally, the resolution of policy interactions within a single sector or organization, whether they take the form of conflict or synergy, will ordinarily take place through administrative or managerial negotiations even when new policy initiatives result. In such cases, innovative policies will probably involve improved relations with individual and organizational clients.

Insights derived from this research may make it possible to develop procedures for improving the practice as well as the theory of policy making. If the research succeeds in making interactions a systematic element in policy analysis, it can contribute to both national planning and regional cooperation.

Research Agenda.

The Pacific Basin Research Center's agenda for 1991-92 includes studies in all four policy areas. Several of the projects involve the study of "mega-policies," efforts to build on policies involving interactions transcending the four areas.

The following projects are under way as of September 1991:

Professor Prasert Chittiwatanapong. From Thammasat University, Thailand, proposes to study the impact of Japanese foreign aid on the Thai economy, using the construction industry as a major example. He will consider a possible "mega-policy" for both Japan and Thailand that will reconcile some conflicting elements in Japan's foreign policy. These conflicts include the offering of capital assistance to Thailand while at the same time using it to provide support to the Japanese construction industry, an objective that threatens Japan's efforts to improve the competitive position of Thailand's construction industry. The new policy will require greater Thai participation in the planning stages of Japanese capital aid, as well as a more sensitive use of economic leverage on the part of the Japanese government; while Thailand will have to adopt new procedures that will permit it to take advantage of technology transfer opportunities presented by foreign construction companies. The policy interactions are between the agencies offering and receiving aid and those involved in executing construction plans that receive international support.

David L. McConnell, post-doctoral candidate, Stanford University, proposes to study the interaction between an educational venture, internationalization policies, and development needs. He will study the "mega-policy" of bringing in 3,000 foreign teachers from 8 countries to try to counteract the insularity of Japanese education and eventually to produce greater public participation in Japan's economic internationalization policies. Since the decision dates back to 1987, he will be able to study its administrative and institutional consequences, which will provide the empirical basis of his research.

Professors Mathew McCubbins, Frances Rosenbluth, Peter Cowhey, and Greg Noble, University of California, San Diego, and Berkeley, propose to study policy making in environmental and commercial regulation (telecommunications, finance, air and water quality and nuclear power) in Canada and Japan, Mexico and U.S., and Korea and Taiwan. The objective is to explore the differences in policy making in these parliamentary, presidential, and emerging presidential systems. Case studies in these policy issues are to be developed and comparative conclusions testing hypotheses about the institutional variables are to be drawn. The PBRC stage of the project involves data gathering to develop a framework for comparing regulatory practices over nuclear-power generation, including siting, pricing, licensing, waste management, and, perhaps, inspection. The project begins with U.S. and Japan, with the expectation of adding other countries later. The policy objective is to explore possible need for creating a "mega-policy" that will bring together environmental and energy concerns.

Vicki Norberg-Bohm, doctoral candidate, Harvard University, is writing a dissertation on the forces favoring and opposing the introduction of environment-saving electricity

production systems in Mexico. The interaction of environmental, developmental, and international technology transfer/national sovereignty values will provide the core data base for this case study. The conclusion is expected to review trade-offs among different strategies for the development of Mexico's electricity system. The "mega-policy" element consists of a search for ways of influencing national, international, and corporate actors to modify their environmental consequences.

John Orme, post-doctoral fellow, Harvard University, plans to develop some case studies of policy interactions involving conflictual values, including primarily environment, development, and security. His first study will describe the emergence of environmental considerations in Taiwan as a basis for a series of "mega-policies" that are intended to deal with the consequences of intensive agricultural and industrial development. In that context he expects to compare the decision-making processes involved in all three policy areas.

Professor Dennis A. Rondinelli, University of North Carolina, plans to write a monograph on the role of the private sector in resolving conflicts between economic development and environmental protection resulting from urban policies in selected Asian countries. He plans to propose "mega-policies" that will create incentives to private corporations to observe environmentconserving practices.

G. P. Shukla, doctoral candidate, Harvard University, is studying tax policies related to natural resource exploitation in developing countries. The "mega-policy" will be a proposed system for dividing the income from mineral exploitation so as to accommodate the conflicting demands of landowners, local governments, and the central authorities.

Dr. Timothy C. Weiskel, Research Associate in Environmental Ethics, Harvard University Divinity School, and Fellow at the Center for Science and International Affairs, is planning to study the environmental impact of GATT decisions on less developed countries, with special reference to how conditions of global trade affect agricultural export production, peasant foodstuff production, and the surrounding natural ecosystems. Improved international negotiation procedures and positions will constitute the "mega-policy" element of the study.

Research Program

The Pacific Basin Research Center was created in January 1991 to support and conduct research on current developments in Asia and the Americas. Topics of special interest are policies regarding economic and social development, environmental protection, peace and security, and education and culture. It defines policies as value-creating activities undertaken to promote a better future. It is interested in public, private, and voluntary institutions. The Center has chosen for its first year to support interactions among these policy areas. It offers research stipends and institutional grants, conducts conferences and supports publications in these areas of interest.

The Pacific Basin Research Center accepts requests for support throughout the year. Awards are ordinarily made in March to take effect in July or September. Most awards are for post-doctoral studies of one year or less, though support to doctoral dissertation research of particular relevance to the PBRC agenda is also available. Support is also given in the form of institutional grants associated with an approved research program. The amount of the grants will reflect actual research costs and out-of-pocket expenses. Institutional overhead, as such, is ordinarily not available.

Proposals should include detailed research plans. Preference will be given to proposals that will contribute to our understanding of "policy interactions" and related "mega-policies," as described in this prospectus. Applicants should indicate whether they propose to work at the Kennedy School of Government, Harvard University, or at another institution.

Applications should be addressed to Professor John D. Montgomery, Director, Pacific Basin Research Center, Harvard University, John F. Kennedy School of Government, CSIA, 79 John F. Kennedy Street, Cambridge, MA 02138.