

Development as Learning

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Members of the Siam Society,  
Distinguished Guests,  
Ladies and Gentlemen.

I am truly pleased to be here with you today. I have not had the occasion to visit Thailand often in recent years, but every time I do so, the experience provides me with new insights and a deeper understanding of my own country. I have been particularly struck by our cultural affinities and, more specifically speaking, of the kinship of the folk culture of Thailand and that of parts of Indonesia, especially of my own native Java.

This pleasure is tinged with a certain degree of envy as, with each visit, I realize even more the value of the cultural continuity that Thailand has enjoyed, uninterrupted by the experience of colonization.

The discontinuity resulting from that colonial domination has cost many other countries of this region dearly. In visiting Thailand, those of us from other countries in this region realize just how high that cost has been. All of this makes coming to Thailand a very thought-provoking experience.

I am glad to be able to share these reflections today with you of the Siam Society, an institution which, with its history and commitment to the preservation of the Thai cultural heritage, has been a strong influence in maintaining that cultural continuity.

Over the past three decades, post-colonial or not, the nations of Southeast Asia have all shared one overriding concern - development. Thirty years ago "development" usually meant "industrial development". The countries of East Asia have generally been quite successful in this dimension, and have weathered the storm of global recession better than most other parts of the world. Even so, this region has come to understand that development means a great deal more than economic growth alone.

The experience of post-war development illustrates that development is a much more complex process than early theories seemed to imply. For example, experience has shown that equity and justice do not necessarily follow economic growth. This conclusion now seems so obvious that it is

hard to recall the naive faith in "trickle-down" that was once held even by people of good will. Indeed, economic growth does not necessarily bring in its wake even a better physical quality of life for the majority. If there is one lesson to be learned from the last few decades, it is that development cannot be equated with growth, nor with the sheer accumulation of wealth. Some of the wealthiest countries, in terms of natural resources, are least developed, and the converse is also true.

If development is not growth, not resources, not wealth alone - what is it? I think it is, above all, learning. In this lecture, I would like to dwell on the kinds of learning that embody development, and on the learning needs that are emerging for the future.

These emerging needs concern the ability to adjust to new technologies, new demographic patterns, new modes of production, new stages of political consciousness - and new and ever more deadly forms of weaponry.

There are many different types of learning - and it might be well once more to enumerate some of them. There is, first, knowledge: the accumulation of wisdom and lore from over the centuries which comes to us in many ways, both formally and informally. There is learning of the skills by which people acquire or produce the necessities of daily life. There is also learning of how to plan, organize and manage the support systems which undergird the human endeavour. Formal education has its role in the learning process, but we are increasingly recognizing that it is only part of that process. Its deliberate pace and structural rigidities may even impede adjustment to rapidly changing conditions.

The form of learning that lies at the heart of development is the rather elusive process that might be called social learning. One observer has described this as a learning form unique to the human species in that it presumes a learning environment characterized by interaction with other learning organisms.\* I take it to be a collective process involving the creative adjustment and innovative responses of social institutions and systems, by which neighbourhoods, villages, communities - and ultimately the nation-state - prepare themselves for living in the future. This world, on the door step of the 21st century, will begin that next century with another two billion people crowded into a shrinking global village already beset by violence, hunger, poverty, environmental deterioration and constantly shifting, frequently bewildering rules of play.

Demographers make projections about our cities very easily, and I am sure you have read projections of the future size of the primary cities in Asia - a Bombay, for example, of 17 million people or a Bangkok of 8 to 9 million by the year 2000. It is an illusion, however, to assume that people know how to live in such agglomerations at the level of income that is likely to prevail in our societies. We will have to learn new ways to make urban communities function, concerning ourselves not only with how these mega-cities can be assured of their food, energy and housing needs; but

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\* E.S. Dunn, Jr. in People-Centred Development (W. Hartford, Ct., Kumarian Press, 1984) Eds. David C. Korten and Rudi Klauss.

also with the ways in which human communities of such size and density can function effectively and with civility, avoiding violent conflict and retaining their creativity.

Demographic increase will bring about significant changes, not only in the density of population but also in the distribution of age groups, particularly in the Third World. The numbers of elderly people will increase, but the median age will continue to decline for some more time since the ranks of young people will swell even faster. This latter growth will have immense implications for the employment situation. It has been estimated that work must be found for some 500 million new entrants to the global job market between now and the end of the century, with some 440 million of these new jobs needed in the Third World - and that is only if one accepts a really unacceptable unemployment rate of 15 per cent in developing countries. In order to reduce unemployment to six per cent, another 120 million new jobs will have to be found, bringing the total to well over half a billion.

The difficulty in creating new jobs is, of course, compounded by technological developments. Industrial research tends to focus on lowering production costs by improving the productivity of each worker; it is biased against the creation of new employment. This implies that the growth of employment is unlikely to keep pace with the growth of production, so that even an expanding economy may leave great numbers of new entrants to the labour force without jobs. Those affected are bound to put tremendous pressure on the political system, especially in countries where the welfare state cannot provide a safety net for the unemployed and their dependents.

Few governments have proven to be capable of dealing with such challenges. Life is changing in ways that have unsettled the sense of moral order and raised questions about the ultimate purpose of development. The changes have helped spark the rise of religious and moral objections to the very notion of development and modernization, and by implication, to the legitimacy of its official sponsors.

Despite the growth of mega-cities, for most developing countries the bulk of the population continue to reside in the countryside. There, increasing rural density is driving people to exploit marginal lands more intensively. In many cases, rural communities have traditional ways of working productively within ecological limits. But the increase in human numbers is not being matched by an increase in the resources, techniques, or options available to the people who live off the land. For the sake of short-term survival, they are forced to violate ecological rules, even though in many cases they understand that to do so is to court disaster in the longer run. The scientific basis of a more productive, sustainable way of life is already available for many kinds of ecological conditions. But the knowledge has not yet reached the people whose very survival depends on it - and their communities are not organized to use scientific knowledge even when it is available.

In both city and countryside, there is little question that increasingly sophisticated communications have sharply affected aspirations and life styles, and led to higher levels of political consciousness. They have brought on shifts in values so profound that, in many cases, one can speak in terms of generational quantum jumps.

It is worth reminding ourselves that when the post-war development experience began, say in 1950, the modern communications age was just dawning. The transistor had only been invented a short while before, the first Sputnik was not yet launched, and the first communications satellite was five years beyond that feat. Microchips had not yet been devised; the typical computer was enormously expensive, very large, and accessible only to a relative handful of specialists.

But the new information and communications technologies proliferated at an astonishing speed. During the late 1950s and 1960s, according to UNESCO statistics, radio ownership increased by more than a hundred-fold in Latin America, by more than two hundred times in Asia, and more than four hundred-fold in Africa. Television, with its even greater power to stir hopes and expectations, followed apace.

Today, new technologies for processing an ever-increasing volume of information are putting great pressure on cultures to somehow absorb new knowledge and information and weave them into the fabric of everyday life - and this is leading to dissonance. A recent conference on the socio-cultural aspects of the information revolution concluded that the "ecology of knowledge" is outpacing cultural adjustment. New kinds of gaps between information "haves" and "have nots" are developing which only exacerbate existing disparities.

Inequalities in access to information are a prime example of change in the context within which development is taking place. Exposure to new information triggers both increases in political consciousness and heightened expectations on the part of different social groups. The inevitable unevenness of the development process itself is thrown into high relief, and often destabilizes and upsets traditional social equilibria.

Yet I take these dangers as hurdles to be overcome, and not as reasons to forswear the use of the new information technologies in Third World communities. I believe that we are now moving into an age of "the survival of the best informed" (to use Jeremy Rifkin's phrase\*), and the developing countries dare not be left behind. A third industrial revolution is now taking place, based on advances in biotechnology, materials technology, microelectronics and information technology.

If the countries of the South do not develop the capacity to participate in this revolution, they will become even more vulnerable and dependent on the North than they are now. We in the developing countries cannot confine ourselves to thinking in terms of closing a knowledge gap. Rather, we must attempt to leap over a whole generation of outmoded technologies and

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\* Algeny (New York, Viking Press, 1983), p. 223.

theories of organization. We do not have time to repeat the mistakes of the North, or even to follow passively in its footsteps picking up techniques that it has outgrown or discarded. We must cultivate the art of innovation, or invent it in a form that is both consonant with the real needs of Third World societies and with the new information "landscape" that is being shaped by advances in technology.

Only in this way will we be able to benefit from the fruits of the information revolution in their totality - not merely for the new technological aspects which can appear so inviting, but also for their potential ability to spur the growth of knowledge and the creative expression of values in our own countries.

The new information technologies intensify interdependence. Yet, paradoxically, they also are capable of powerfully reinforcing the independence of the individuals and associations that have access to them. They enlarge the universe of information available to the user and allow the user to make a selection without an intermediary filter. There is, in this, some danger of fragmentation: if all the members of the community are selecting different tailor-made information packages, their common ground of knowledge and mutual understanding may erode, and social cohesion may suffer. Indeed, I think this process can already be observed: one of its most familiar manifestations is the generation gap. But on balance, provided the lines of communication are kept open between groups, this proliferation of micro-information environments is a healthy development.

Access to information is itself a kind of power, and the empowerment that independent access brings is multiplied when information can be exchanged as well as received. New information and communication technologies, ranging from those as simple as the cassette tape to those as complex as the communications satellite, hold out this promise. They can be organized in a way that not only permits people to choose information from a larger and more varied menu, but also permits them to participate in programming, in reporting news relevant to themselves, and in sharing what they have learned with others.

The opportunity to organize and manage and profit from one's own endeavours creates a motivation to learn, and, very often, a motivation to communicate one's acquired knowledge - in other words, to teach. Obviously, this kind of teaching is not something that takes place only in a classroom. It is the kind that takes place, when the circumstances encourage it, between neighbours, business associates, farmers in adjoining fields, and so forth. And it is the kind of teaching, and learning, that has transformed some voluntary associations into the most powerful development agencies that operate in some parts of the developing world. Mothers' clubs, women's associations of various kinds, traditional savings associations, funeral societies, irrigation or forestry co-operatives, mutual-assistance housing pacts, marketing co-operatives and so forth all provide examples of the successful mobilization of local initiative. It is important for governments to encourage and enable such initiatives to operate, but governments have rarely been successful in creating them. Too often, political and bureaucratic institutions have been a source of obstruction

rather than encouragement to local initiatives. We might as well face squarely the fact that, because they are outside the framework of bureaucratic programmes, spontaneous movements that organize and share information independently are often seen as a threat to central control. They are, in some respects, a threat, so it takes a degree of courage for governments to encourage them whole-heartedly. I am utterly convinced that the reward for relinquishing all-embracing control is worth the risk: it is the possibility of unleashing a kind of energy that is the most essential development resource.

In trying to characterize this kind of energy, I am reminded of a conversation that I had last summer at home in Indonesia with a Balinese painter. The Hindu island of Bali is the home of a rather distinctive culture within Indonesia. It is a poor island, but the society is well-integrated, dynamic, creative and supremely adaptive - and my painter-friend seemed to embody all of these qualities personally. I was impressed enough to ask him to explain to me what inspired him. He told me that his life, like his culture, had three sources of inspiration. One was religion, which nourished the soul. The second was art, which nourished the heart and feelings. The third, he said, was the customary and ritual interactions of the community, which generated what he called "social energy." I asked myself then - and these reflections today are part of my continuing questioning - how can social energy be mobilized, encouraged, and put to work on the scale required?

Part of the answer must be supplied by the poor themselves - which means that more privileged people must learn the art of listening and be willing to recognize past mistakes. Too often in the past, local bureaucrats, taking their cue from the national bureaucracy, have been averse to listening to ordinary citizens. Many of the projects created and managed by governments, moreover, leave little decision-making to citizens, and thus generate little popular participation and support. Frequently the best-intentioned "participative" development strategies falter because they rely on a bureaucracy unable to respond to community needs and unwilling to rely on community skills and problem-solving capacities. Yet it is just such resources that, time and again, have proven to be very rich. Various studies of development "success stories" demonstrate the importance of a learning process in which local residents, both men and women, and programme experts share their knowledge, and display a willingness to learn from mistakes and make adjustments accordingly.

In helping to create the micro-information environments in which co-operation between villager and project-worker could flourish, we should explore a variety of ways to extend the learning process. The response of formal education systems has thus far been inadequate even in the conventional sense of education - and far from what is called for in this much broader learning process. In many places, a number of other institutions and organizations have gotten into the business of education - including corporations, labour unions, the military, governmental and private agencies, libraries, museums, and professional associations. In Japan, both newspapers and department stores run educational and cultural training-programmes. In the United States, the educational programmes of

the giant communications company, AT&T, enrolled nearly half a million people in 1979 before the company was broken up. This total exceeded that of the largest university system in the world, the State University of New York.\*

Technological change and longer life expectancy give added urgency to the recognized need for continuous lifelong learning. Many people will want or need to prepare for second careers, or to seek retraining in order to keep abreast of new skills and job opportunities. But even the most innovative educational programmes must be monitored carefully to ensure that they remain in tune with the changing contexts in which their participants will have to operate. Training should cultivate the capacity for innovation, for improvisation, for recognizing emerging opportunities in new social and technological situations that cannot be precisely foreseen.

Local learning environments could be greatly stimulated, for example, through the establishment of decentralized radio stations and citizen-band systems through which farmers, for example, could exchange information on local crop prices, weather and market conditions. Through the use of video tapes, we may be able to revitalize oral traditions and bring even the illiterate into the information age. Markets have always been important loci of information. It is interesting to note that even in several countries where private capital is not accepted as a legitimate basis for economic activity, the mechanisms of the marketplace are increasingly valued for their information-clearing functions.

Similarly, in both socialist and capitalist as well as mixed economies, innovation seems to be most at home in relatively small enterprises that are allowed to exercise initiative, take risks, gather and dispense information. The resilience of an economy depends, to a large extent, on such small enterprises. The problem, however, has been to organize the small entrepreneurial units into networks large enough to benefit from larger marketing systems, quality-control methods, technological innovations, credit systems, and other possible economies of scale.

Here, the role of planning cannot be overlooked, but I would like to emphasize that the planning should be specific to the qualities of the enterprise, the region and the cultural context. It requires sensitivity to and interaction with the people who are expected to carry out the plan. In other words, planning is also a learning process - at least, successful planning is.

A new trend of revitalization of small- and medium-sized industries and of production decentralization is visible in some industrial countries. Recent innovations in a host of industries such as energy, wood processing and new materials, and especially in the application of micro-electronics - for example, numerically controlled machines and robots - have made modern technology more potentially applicable to traditional producers on a

\* C.R. Wharton, Jr., "Education 1984: Renaissance and Reform", Address to Education Commission of the States, St. Paul, Minn., 2 August 1984.

decentralized basis. Already microchips are being used to control fermentation and milling processes that can be adapted to small-scale traditional sectors.

There are in fact working models of decentralized, participatory organization that are well worth study. In the Prato area of Italy, for example, there are some 15,000 to 20,000 textile firms, most of them very small, employing only a few workers.\* In these businesses, which provide work to 70,000 people directly, and to another 20,000 in supporting services, traditional forms of production, social relations and technologies survive side by side with very advanced production technologies and marketing systems; there is a blend of old and new technologies in an industry which is deeply rooted in the local historical tradition and social structures. The Prato experience - and similar experiences, for instance in the Sakaki region in Japan - suggest possibilities for dispersed rural industrial production systems in developing countries, which would be competitive with urban production centres. This would ensure that the urban areas would no longer monopolize new economic opportunities. This in turn might lead to new and more equitable urban-rural configurations, a central issue for which the solution has so far escaped all development efforts aimed at poverty reduction. The prospects of this kind of rural industrialization hinge on a systematic effort to constantly modernize existing technologies and continuously integrate old and new technologies. It also depends on linking up traditional crafts and social infrastructures with modern, even computerized, quality control and marketing systems.

One could think of a number of areas in the developing world where the preconditions for such an effort seem to exist. Experiments have shown that the productivity of fish and other aquatic organisms is enhanced through induced breeding and polyculture techniques, and through a combination of animal husbandry such as poultry and duck-rearing and aquaculture. A report of experts to the United Nations relates the experience of rural women successfully trained to induce carp breeding by extracting the pituitary hormone and injecting it in female fish. Textile production is a major industry in developing countries and one where large modern establishments and traditional small local industries are successfully co-existing.

These efforts, however, are part of a larger problem that concerns the need for developing countries who are late-comers in industrial development to rethink their industrial strategies as a result of the overall impacts of new technologies on the location of industries.

The original assumption that marginal industrials would move from the North to the South in order to be closer to cheap labour or to natural resources no longer applies, because new forms of automation now make it economically possible for such industries to stay in the North. The South will have to consider in what areas it will compete with the roboticized North and, at the same time, devise ways to deal with the massive unemployment that is affecting its societies.

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\* "Co-operative Organization and Constant Modernization of the Textile Industry at Prato, Italy", D. Mazzonis, U. Colombo and G. Lanzavecchia.



To meet the learning needs of development, there obviously must be an unprecedented flow of information into the villages and urban neighbourhoods, capable of reaching the poorest residents as well as the traditional channels of communications such as the village headman, the extension services, and the school system. What is urgently called for is the transformation of the neighbourhood from a traditional society to an "information community," capable of acting and responding creatively to the information reaching it, and capable also of seeking out and generating that information.

The information environment in its totality - including every medium from wall-posters and folk-plays to television and computer data banks - must be shaped in such a way that it is accessible to all. Material that is only comprehensible to more highly educated residents works to the relative disadvantage of less educated groups and would only serve to widen the income gap. Villagers and urbanites also need specific information about their rights as citizens. Ideally, this should be allied to the knowledge of where and how to obtain legal redress for injustices, but even the basic information about individual and collective rights may encourage people to assert themselves. Above all, and this cannot be emphasized too strongly, the information channels must include new or improved mechanisms for dialogue and interaction - in short, for mutual learning.

The problem of equal access to information is by no means confined to the developing countries. One recent critique of the American educational system, by Clifton Wharton, pointed out that the information revolution, and the educational system's response to it, is bringing about a new dualism in U.S. society - one which breaks, like the old dualisms, along lines of race, ethnicity, income, employment and education. This arises from the fact that fields requiring the most sophisticated training today generate the fewest jobs; the majority of job openings are in fields requiring little skill. Most of the desirable jobs go to members of the privileged social groups. With little variation, these same observations apply to many Third World nations. All levels of formal education have a responsibility to do what they can to combat what Wharton calls "technological feudalism."

Educational systems in the Third World, however, face a broader set of challenges. Let me emphasize four of them:

The first is to move away from the common emphasis of schools and universities in the developing countries on learning by rote. While I would be the last to denigrate the importance of the study of history, philosophy or classical writings from all cultures, we simply cannot go on treating textbooks as if they were sacred texts. In such a fast-changing world as our own, positive knowledge is very quickly outdated. The schools now need to take up the challenge of teaching the art of learning, preparing minds for an on-going, lifelong process of education.

Universities, in particular, must reconcile the conflicting pulls on them to be both at the cutting edge of modern science and technology and deeply engaged in the problems of poverty which continue to affect the majority of the people in the Third World. Without the former emphasis on building

capacities in the basic sciences, major new dependencies are likely to develop. Without the latter, the universities' work will have little relevance to the suffering communities in their countries.

A third challenge is for education to break out of the narrow disciplinary approaches which can so easily ignore the political, social and cultural complexities of development problems. Responding to the explosion in scientific knowledge will mean building a much greater capacity for critical judgment, selectivity and synthesis.

Fourth, there is the challenge posed by increasing pressure for higher enrollments at all levels of the educational system. This reflects a growing hunger for knowledge on the part of people at various levels of society, as well as sheer population growth. Responding to this challenge will require innovative approaches to extend learning beyond the conventional classroom. These challenges cannot be met by the educational system alone. A number of other organizations and systems must also be enlisted to meet the new learning needs we face.

Government bureaucracies, for example, must make adjustments to enable civil servants to break engrained habits that can stifle creativity, perhaps through such arrangements as sabbatical leaves similar to those in academic life. Planners should be regularly expected to work in the field, in order to encourage a two-way flow of information. District administration offices could be the locale for expertise in conflict resolution, perhaps working through local ombudsmen who could train and call on volunteer mediators. India for instance already has a legacy of enormous value in this respect, growing out of the Gandhian tradition.

The central need, however, is that the new policies now come to grips with structural impediments to change. The policies that have guided development to date - and perhaps misguided is a fairer description - have tended to create and reinforce powerful political constituencies among the urban elites, and to neglect, relatively, the rural masses. Changing the balance between the urban and rural sectors in the developing world, and integrating into the national mainstream the previously disenfranchised and marginalized, will amount to a fundamental change in the distribution of economic and political power.

I do not wish to sound naive. I realize full well that such a change entails grave political risks for any government brave enough to attempt it. Given the fragility of many governments in the developing world - despite the authoritarian character of a great number of them - their capacity to make a fundamental adjustment of this kind within a short period is limited. At the same time, the risks of continuing to ignore the problem may prove even more catastrophic. There is therefore a tradeoff between present and future risks.

I have tried, in this brief period, to raise some questions about the kind of society we want for our children, the difficulties we have had in striving for it, and the new challenges we must face. The specific nature of the challenges will be different for each society, shaped by its own

distinctive culture, history, and aspirations. But let me mention five general qualities, which I believe will characterize the leaders and institutions of those societies that adapt successfully to the challenges of the future.

- First, they must be flexible and innovative, not frozen in old rigidities, and must be prepared constantly to take up new initiatives and directions;

- Second, they must possess a working familiarity with the latest achievements in science and technology;

- Third, they must be firmly rooted in the cultural soil of the society they seek to serve, and able to relate society's goals to currents on the international scene;

- Fourth, they must approach their very difficult learning tasks in a spirit of humility, cognizant that human endeavour is as capable of folly as wisdom;

- Fifth, and finally, the leaders and institutions of the future must be keenly aware that development is much more than a quick technological fix; it is driven also, in very important ways, by the inner impulses of the human spirit which often are reflected in religious or moral convictions.

I hope that you may find it appropriate that I end this lecture with a quotation from a great scientist who was also a great humanist - Albert Einstein. In 1937, Einstein said, and I quote:

"Our time is distinguished by wonderful achievements in the fields of scientific understanding and the technical application of those insights. Who would not be cheered by this? But let us not forget that knowledge and skills alone cannot lead humanity to a happy and dignified life. Humanity has every reason to place the proclaimers of high moral standards and values above the discoverers of objective truth ..."

Referring to the great prophets and religious teachers, he then continued:

"What these blessed men have given us we must guard and try to keep alive with all our strength if humanity is not to lose its dignity, the security of its existence, and its joy in living."

Thank you very much.

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