Invitation to the Reader

In the continuing spirit of anticipatory and participatory democracy, all readers are invited to submit their views on the subject, Malaysia in the Year 2001. These can be in any form: for example, elaboration or criticism of ideas expressed in this book, delineation of subjects not covered herein, or answers to the questions posed in the sections at the end of each Commentary chapter. Contributors are asked to classify their submissions according to subject. This will facilitate filing and enable the efficient organization and retrieval of materials for future use. It is preferred that names and addresses of contributors be included, but anonymity is perfectly acceptable. Submissions should be addressed to the Syed Kechik Foundation, P.O. Box 2675, Kuala Lumpur, Malaysia.

MALAYSIA 2001

Bruce Ross-Larson, editor

MALAYSIA 2001
a preliminary inquiry

The essays constituting the second part of this
book have been printed by permission of the
authors.

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Editor's Preface

This book is the product of a series of activities sponsored by the Syed Kechik Foundation during 1975 to focus on the subject: Malaysia in the Year 2001. The idea for these activities was planted when Datuk Syed Kechik, a Malaysian lawyer and businessman, chanced upon *Hawaii 2000*, the book detailing the findings of an inquiry into the future of Hawaii. Feeling that a similar inquiry should be conducted in Malaysia, he decided that it would be an appropriate first project for the foundation he established in 1974.

Over the six months prior to the international conference that was held in Kuala Lumpur in August, weekend-long workshops were conducted in Penang, Malacca, Kuala Trengganu, Kota Kinabalu, Kuching, and Kuala Lumpur. At each of these workshops, a cross-section of about forty Malaysians was gathered to discuss the kind of Malaysia they wanted in the future for their children and grandchildren. It quickly became apparent that Malaysians, like people everywhere, are not very adept at contemplating the distant future. They are accustomed to contemplating the past, the present, and the immediate future, but not the future beyond the immediate. Consequently, discussions had the tendency to focus on the present and what is wrong with it, not on the future and what might be right with it. Usually, it was only in the closing hours of each workshop that participants were able to break their bonds with the phenomenal present and discuss creatively the hypothetical future. Several interesting notions emerged nonetheless, and participants generally agreed that in the initial stages of looking at the future the *process* of discussion can be as important as the *product*. The fact that a series of concrete recommendations could not be put down on paper was of little concern.

Simply looking at the future was a worthwhile opening exercise. The proceedings of these workshops were summarized and made available to participants at the international conference.

More than 100 Malaysians, again representing a cross-section of the populace, took part in the week-long international conference. Also taking part were a dozen American and European futurologists. Several of the foreign guests delivered talks which were designed to incite and unleash the futuristic thinking of Malaysian participants. Of these talks, some were local in orientation, most were global, and one was universal. Nearly all were optimistic, perhaps more a reflection of the selection of speakers than of the reasonable prospects for the future. There were no ecofreaks, no doomsayers, no domino theorists to puncture the enthusiasm of Malaysians taking part or to challenge the wonderful speculations of the economic determinists. After each talk, the participants split up into discussion groups to deal with specific issues. The intention was that by conference's end there would be a series of specific recommendations that could be made public in the press and presented to the government. The conference did not get that far, indicating the difficulties of grappling with the complex issues of the future. Discussions, although intense, were generally haphazard and free-associative. As in the workshops, the process was of greater significance than the immediate product.

The first part of this book, *Commentary*, is in large part a distillation of the proceedings of the preliminary workshops and the conference itself. Five broad subject areas emerged: the apparent decline in values, the cleavages in society, the deficiencies of the representative political process, the prospects for a strong economy, and the needs of individuals. In developing the structure of the *Commentary*, I have tried to mirror these areas of focus—even to the extent of giving added emphasis in Chapter 5 to education, which was unchallenged as the favourite topic of discussion. Clearly, each topic could have been the subject of an entire volume, if not a series of volumes. The attempt in the *Commentary* has therefore been to reduce the discussion to fundamental issues that seem likely to persist; to organize in a sustained narrative the diverse materials transcribed from tapes of the proceedings; and to provide some basis for additional futures research in Malaysia.

In the process, considerable licence has been taken. Many

notions expressed at the workshops and conference have been directly incorporated into the text. Certain ideas, developed only partially in the various discussions, have been extrapolated to conclusions that participants would probably have reached themselves. And numerous personal observations have been injected from my five years of residence in Malaysia. Consequently, I accept full responsibility, but not full credit, for the views and conclusions expressed herein. I am also aware that the *Commentary* has a smattering of commonplaces and platitudes. Perhaps this is inevitable when dealing with fundamental premises—premises which alone can provide the basis for future action and planning. These premises are, moreover, entities which must from time to time be struck like a gong to be certain they still resonate with the notions and objects surrounding them.

For readers unfamiliar with Malaysia, a bit of background information may be helpful. The nine Malay states and the Straits Settlements of Penang and Malacca secured their independence from Britain in 1957 as the Federation of Malaya. The Federation, the former Straits Settlement of Singapore, and the Borneo states of Sabah and Sarawak were amalgamated in 1963 to form the new nation, Malaysia. Singapore left Malaysia in 1965 to become an independent republic. About 40 percent of Malaysia's land area of 127,500 square miles is constituted by the peninsular states; Sabah and Sarawak account for the other 60 percent. The population in 1975 was 12 million, of which 46 percent were Malays, 34 percent Chinese, 9 percent Indians, and most of the remainder *bumiputras* in Sabah and Sarawak. Foreign trade accounts for a large part of GNP: Malaysia is the world's largest exporter of tin, rubber, and palm oil; and the country is now a net exporter of petroleum. Per capita GNP in 1975 was M$1,690 (US$660), a high figure for a primarily agricultural developing country, but there nevertheless are substantial inequalities in income. Most of the tin mines, rubber and oil palm plantations, and manufacturing concentrations are on the western side of the Peninsula, as is most of the wealth. Some Malay words have been used in the text: *padi* is wet rice; the term *bumiputra* means son of the soil and refers to the indigenous people of the country; the *ringgit* is the local currency unit, approximately equal to US$0.40 and 20 new pence sterling; and a *kampung* is a residential cluster or village.

The second part of this book, *Considered Views*, comprises a number of essays presented to conference participants. Not all those included in this selection were delivered at the conference; nor have all those delivered been included. The generally global perspective of these essays is intended to complement the Malaysian perspective of the *Commentary*. For example, Jungk points out some of the pitfalls of futurism throughout the world; Dator provides a conceptual framework for engaging methodically in futures studies; Clarke and Williams indicate some likely applications of recent technological developments to life as we know it; and Fuller, relentlessly spacious though his speculations be, places Malaysia's affairs in a universal context and underlines the relative insignificance of national boundaries and concerns in the modern world.

As the subtitle suggests, this is a preliminary inquiry, not a final word. Thus, it is not so much a forecast of what will or might happen during the last quarter of the 20th Century as a disclosure of what many Malaysians would like to have happen. It is not a prognosis, but a prescription for beginning the process of trying to remedy and avoid many of society's likely ills. It is by no means comprehensive, but is instead highly selective. And it raises far more questions than it pretends to answer. But it is a beginning. It is the business of similar conferences in the future, and the readers of this book, to make this preliminary inquiry a continuing inquiry.

I have been asked by Syed Kechik to convey his appreciation and that of the Syed Kechik Foundation to Tuan Syed Adam Al-Jafri, who planned, coordinated, and moderated all activities associated with the workshops and conference; to Finance Minister Tengku Razaleigh Hamzah; who delivered the keynote address at the international conference; and to all those participants who gave of their time and resources to make the Malaysia 2001 activities a success. I suspect I echo the sentiments of these same participants by conveying our appreciation to the Syed Kechik Foundation for making possible this thought-provoking experience of Malaysia's first popular exercise in anticipatory democracy.

Bruce Ross-Larson
Washington, D.C.
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Commentary

The Revolt
against Accepted Values

Understanding the values presently held by all Malaysians is important. Beginning to have some understanding of the values of the future is even more important. But if little is known of values presently held, virtually nothing is known of the content and character of future values. It is assumed that they will continue to be much the same. But this assumption is false. How can values continue to be much the same when Arthur Clarke says that all religions will undergo remarkable reappraisals once contact is made with extraterrestrial life in the next 50 or 100 years? Or when Buckminster Fuller predicts that dollars, material pursuits, and conventional politics and economics will become meaningless after the transformation that, in his reckoning, will begin in 1985? Or when pessimists suggest that Malaysia's affairs will in the near future be governed not by Kuala Lumpur, but by Hanoi, Peking, or Moscow? Such major changes may not happen so quickly. Indeed, they may not happen at all. But more subtle changes will nevertheless alter radically what presently is accepted as given in the realm of values. The ramifications of these changes will be considerable.

Values are the primary motivating variables in almost all human systems, from the material to the spiritual. Values influence human behaviour and condition what the individual will think and do in particular situations—the methods a politician will employ in the struggle for power, the objectives a business manager will try to achieve in the undertakings of the company, and the reactions various sectors of the Malaysian polity will

have to proposed changes in the federal constitution. Values are frequently invoked to explain why Malays feel threatened when the Chinese make a call for a Malaysian Malaysia, why the Punans do not want to come out of the Sarawak rainforest, or why the Chinese seemingly have no aversion to noise. Values are also invoked to justify such actions as introducing a national language, designating certain issues as sensitive, or redressing racial imbalances in the economy. Values, then, are necessarily at the root of any serious discussion of the Malaysian past, present, or future. But however frequently values may be talked about, and however seminal a role they may play, they continue to be imperfectly and incompletely understood.

What are these vague, elusive values that are so difficult to define, yet so instrumental in determining what Malaysians do now and will do in the year 2001? Some examples which distinguish values from valued actions and things will help to clarify what they are. It can be said, in accord with a typology proposed by Spranger in his *Lebensformen*, that there are six basic categories of values: social, economic, political, theoretical, aesthetic, and spiritual. To illustrate: solidarity is a basic social value, explaining the desire for ongoing interpersonal relationships; speaking in a friendly manner is a valued behaviour that can lead to social solidarity. Utility is a basic economic value, explaining the desire to earn more money for doing less work; machines which increase human productivity are valued objects that can have definite economic usefulness. Power is a basic political value, explaining the desire to impose one's will on others; having control over, and freedom from, others is a valued situation that can manifest power. Truth is a basic theoretical value, explaining the desire to have a greater understanding of the world and the universe; experimentation and verification are valued actions that can realize truth. Beauty is a basic aesthetic value, explaining the desire to enhance one's environment and delight one's senses; the creation of a work of art is a valued action that can realize beauty. Awe is a basic spiritual value, explaining the desire to feel at ease with the mysteries of an infinite cosmic order; submission to one's god is a behaviour that can realize awe. The basic values of all societies, indeed all individuals, are pretty much the same worldwide and fit into these same six categories. Nevertheless, the actions and things valued in each category differ remarkably.

The impossibility of a Malaysian value system

All Malaysian ethnic groups, hence all Malaysians, generally hold to the same basic values which in turn determine the fundamental goals of behaviour. There are, however, individual and ethnic differences in the relative importance assigned to each value category, and this results in the emergence of different hierarchies of values. For example, individuals in one ethnic group may assign a greater importance to social solidarity than to economic utility; individuals in another may rank spiritual awe above scientific truth. There are, in addition, differences in the valued actions and valued goods that are regarded to be consistent with these basic values—the way a person walks and talks, the clothes a person wears, the food a person eats, the furnishings of a person's house. In many ways, these differences are of greater consequence than the differences in value hierarchies, even though they tend to reinforce each other. All these differences stem from dissimilarities in what is culturally transmitted in the process of socialization, and in what is decided by the individual in the process of self-determination that results from observation and experimentation in one's environment.

What, then, are Malaysian values? To begin with, it must be recognized that the notion of a Malaysian value system, however much it may be bandied about, is nonsensical. There simply are too many permutations and combinations of background and experience. Formerly, the values operating in any of Malaysia's ethnic communities were rigid, long-lasting, and fairly uniform. But today, all these traditional values have been augmented with the values of the people who have been educated, exposed to a much broader world, and employed in occupations that are quite different from those of their parents. These developments even make it irrelevant to speak about Malay, Chinese, or Indian values. What, for example, are Malay values? It is difficult to say, unless it is specified whether we are talking about the western-educated Malay, the locally-educated Malay, the urban Malay, the *kampung* Malay, the older Malay who still thinks in a nationalistic framework, or the younger Malay who was born after Merdeka and is far more concerned with honest government than with atavistic concerns about holding the nation together in the face of would-be colonizers. Assuredly, many similarities do exist, but the differences are, and increasingly will be, far more numerous and of far greater consequence.

The values of Malaysians and all the valued actions and things that stem from these values will become increasingly diverse as time goes on. This trend has certain clear implications. It must be recalled that, in the West, a few dominant values that were commonly held during the period of industrialization integrated society with a singleness of purpose that made many things possible. In the West today, these commonly-held values are now differentiating because of their rejection by growing numbers of people who find alternative values more attractive and appropriate. But in Malaysia, dominant values are differentiating *before* these have had a chance to become common and *before* the economy has become industrial. It is well known that the whole business of economic development and improving living standards is greatly simplified when everyone agrees on fundamental goals and then makes sacrifices and works like crazy to achieve them. This in effect is what happened when the West was industrializing. This probably is not going to happen in Malaysia. It may also be noted that a value consensus is perhaps no longer the prerequisite of economic development.

The tenets of the *rukunegara* (national ideology) are the product of one attempt to articulate certain commonly accepted values in Malaysia. These tenets aver: 'that the nation is dedicated to achieving a greater unity of all her peoples, to maintaining a democratic way of life, to creating a just society in which the wealth of the nation is equitably shared, to ensuring a liberal approach to the country's rich and diverse cultural traditions, and to building a progressive society oriented to modern science and technology; to attain these ends, the Malaysian people are to be guided by the principles of belief in god, loyalty to king and country, upholding the constitution, rule of law, and good behaviour and morality.' All of this is very noble, and certainly difficult to disagree with as a statement of basic national values. But the thrust is in fact no more than a push for what the values should be. The *rukunegara* is not pulled from what the values in fact are. Everybody knows how they should act; not everybody always acts as they should. Even if they do, even if there is a consensus about what is valued and should be done, there may be no consensus about how something is valued and should be achieved. Even though the values and objectives may be common, the means of realizing or satisfying them may be most uncommon.

This is not to say the search to discover a consensus about values should be hastily abandoned. On the contrary. Whereas finding a consensus may be impossible, it is possible by undertaking such a search to understand more about the values of others, particularly because so little is known about them at present. How much do non-Malays, who have been surrounded by Muslims all their lives, know about Islam? How much do the non-Chinese know about Buddhism? How much, indeed, do the Chinese know about Buddhism? And how much do people in the Peninsula know about animism and Christianity among the peoples of Sabah and Sarawak? In the same vein of inquiry, it must be asked how much is understood about the valued behaviours and valued goods of any of the different ethnic groups.

Changing values

Values are changing, but this is not new. Values, along with consensual societal decisions related to valued actions and objects, have always undergone modifications from time to time. But today, there are two important differences in the way these modifications are taking place. First, the field of values is becoming much broader. There is a far greater variety of values and of valued actions and goods to choose from than were available just 25 years ago. The most visible of these are of western origin, particularly as evidenced by the young, but by the not-so-young as well. Long hair and jeans were not in the field of values 25 years ago; nor were attaché cases, lolling about in the cocktail lounge of an international hotel, and dancing at a discotheque. Styles change. But other, less superficial entities are creeping in as well: individualism, introversion, privacy, independence—all largely unthinkable at mid-century, but now very much in the behavioural repertoire. This trend is not something which will be turned around in the near future.

The second difference is that values are becoming short-lived. This definitely is happening in the West, and it is beginning to be perceptible in Malaysia. It used to be that a person, on reaching adulthood, had developed a fairly tight set of values which subsequently underwent very little change. Today, values exhibit something resembling the half-life of decaying radioactive elements, and their half-life is getting shorter. Individuals, in response to the times and to changing conditions, will be changing their values much more frequently. And beyond simple change,

which promises to accelerate as time goes on, looms the possibility of a radical transformation of values. Alvin Toffler suggests that 'enormous technological and political changes will overthrow our values with respect to money and success.' What will be the future importance of money, if any? How will success be evaluated? There are as yet no answers to these questions. But it can be predicted with a fair amount of certainty that money, success, and many other things will be perceived very differently.

In the future, all Malaysians will be dealing with diverse and changing values. It is probable that a lot of the standard bearers—values about family, old people, neighbourliness, and acting in Malay fashion—will begin to disappear. Not entirely of course. It is just that fewer and fewer people will be perceiving these things in traditional, unchanging ways. Given such inconstancy, values will be less effective in restraining the behaviour of individuals and groups and in guiding the behaviour of the individual in particular situations.

In all the traditional ethnic societies in Malaysia, the goals and the culturally acceptable means for pursuing these goals, in whatever value category, were clearly articulated. In addition, the value categories themselves were in fairly good balance, and the elements of each—the valued actions and goods—were reasonably well-integrated and compatible. Social, spiritual, and aesthetic values were at least as important as economic and political values, if not more so. Etiquette was very important in social relationships; the extended family was the framework for virtually all activities; the adherence to religious practices was seen as instrumental to moral behaviour. In modern Malaysian society, all this is changing: social, spiritual, and aesthetic values are increasingly giving way to the economic, theoretical, and political values, each having a highly utilitarian bias. Money and material objects have become very important, often to the exclusion of social generosity and cooperation; political power has become very important, often to the exclusion of the rights of the individual; theoretical knowledge has become very important, often to the exclusion of adherence to religious beliefs. The result is that traditions in social, political, and spiritual life have begun to fall by the wayside. Their loss is regarded with some nostalgia, but not with sufficient regret to retain or resurrect them. One seemingly obvious fact about values has not yet been

generally grasped: it is very difficult to add new values without displacing others, either entirely or in their order of importance.

Because of this sudden shift from traditional to modern values, it is difficult to form concurrently a coherent, well-integrated series of judgments regarding valued behaviours and goods The guidelines of culturally acceptable means that maintain the integrity of society and the personality do not immediately emerge. Indeed, they may never emerge, leaving only the means that are acceptable to the individual. The people most affected by this shift to modern values are the young and those in urban areas. But this shift to modern values is incomplete for many of them. This implies that they are caught in the middle, fully adhering neither to traditional values nor to modern values, but partially adhering to both. This ambivalence makes them particularly susceptible to the attractions of the new models being propagated by the new agents of socialization—the schools, newspapers, television programmes, and moving pictures These challenge the traditional balance of valued goods and valued behaviours and reinforce the bias towards economic and utilitarian pursuits. In the extreme, this results in a near-total rejection of traditional values and a seemingly blind and total acceptance of external values—in what might be called reverse ethnocentricity. An example of this is the bejeaned and t-shirted female Mara student casually throwing around four-letter words to show how western and non-Malay she is or can be. In response to this sort of performance, appeals will inevitably be made for a return to religious ethical structures, like the Islamic.

Malaysians may be acquiring the political, economic, and theoretical tools to gain increasing mastery over their lives. But by neglecting the pursuit of social, aesthetic, and spiritual values, they jeopardize this same mastery—the mastery which inheres in balance. The conflict is not necessarily between the traditional and developmental, or even between the economic and the social and spiritual. It is between the visible and invisible, the tangible and intangible, the quantifiable and unquantifiable The inevitable result is that the developmental Malaysian becomes an econocentric and materialistic Malaysian, a shell of his or her traditional self, but a shell coated with a gloss of progress and modernization to justify that which has been thrown off Malaysian society undoubtedly is becoming increasingly

materialistic. Observers like Herman Kahn feel that this process is inevitable and that little can or should be done to deter the individual's pursuit of improved economic and material well-being. Kahn asserts, moreover, that this is what people want most and that countries like Malaysia should not import the hang-ups of people in the West. In other words: do not worry about the break-up of the extended family, for it will be replaced by a social unit more adaptable to industrial undertakings; do not worry about pollution, for it can be remedied in future; do not worry about the dehumanizing aspects of urban life, for there was considerable inhumanity in traditional society, and the new economic order will open new possibilities for the enhancement of life. These assertions may be correct, for Malaysians do seem to adopt modern notions and shed the traditional with alarming alacrity. For these dramatic changes to occur, there must be strong and valid attractions to life in industrial society. But this does not mean that traditions should be shed willy-nilly simply because they are perceived as old-fashioned. Some traditions continue to have validity in the modern setting, and some offer what Toffler calls *zones of stability* for a life that is becoming increasingly unstable in the face of accelerated change. Attempts must be made to preserve or adapt such traditions as these.

What will really be valued?

Most Malaysians want their country to realize fully its potential for economic growth and development, seemingly at the expense of whatever potential exists in such other value categories as the social, aesthetic, and spiritual. The main thrusts of government programmes have therefore been, and are likely to continue to be, increasing the theoretical capabilities of the young so that they can perform useful economic roles and developing the various sectors of the economy so that more Malaysians can enjoy a better standard of living. Little is being done to develop political values, which are consciously being reinterpreted so as not to impede economic growth. Similarly, little is being done to develop aesthetic values, educational values, or social values, except insofar as these promote economic undertakings. Malaysia may have a New Economic Policy, but it does not have a New Political Policy, a New Educational Policy, or a New Social Policy. Why? Because there

is a consensus about economic objectives, but not about politics, education, or the structure of society. The basic thrust is clearly economic. Given such a bias, it must be recognized that other things are being sacrificed, even though they need not be. It can be deduced from school enrolment figures and GNP statistics that Malaysia has progressed educationally and economically. But has Malaysia progressed socially in recent years? Has Malaysia progressed spiritually in recent years? Has Malaysia progressed politically in recent years? And if so, how much progress has there been in each of these value categories?

Few Malaysians like to admit that the primary wants being pursued in Malaysia today are related only to economic development and technological advancement. This is because they prefer to see themselves as pursuing a balanced series of ends. Few like to admit that this strong economic bias brings in its wake a series of things that clearly are not wanted. Malaysians want an industrial society, but not the breakdown of family solidarity that comes with it. Malaysians want more material goods, but not the breakdown of religion that comes with possessing them. Malaysians want increased personal opportunities and mobility, but not the associated breakdown of community. Yet because the former wants are much more visible and identifiable than the latter side-effects, the side-effects are almost subconsciously written off as necessary costs. They are not entirely forgotten, however. Because the pursuit of economic and material ends smacks of selfishness, Malaysians keep in their repertoire of concern such notions as respect for others, the eradication of poverty, the pre-eminence of Islam for Muslims, and the pursuit of larger ends. But will economic development be sacrificed to retain the solidarity of the family, prevent the breakdown of religion, or retain a sense of community? Probably not. These goals are seen as exclusive, not as being mutually interactive.

Because the motivational strengths of values are of considerable importance in determining what people will think and do, further distinctions should be made to the earlier categorization of values. One such distinction is between what is seemingly valued and what is really valued, as is indicated by what the individual or the collective in fact does. People may say that they value neighbourly relations, but abruptly excuse themselves from fenceside conversations to watch a television programme. People may say that they are in favour of putting up low-cost

housing for the poor, but be against the increase in taxes that is necessary to support it. Malays may say that they want to have better working relations with the Chinese, but really mean that in the context of these better relations they will be able to transfer more of that Chinese wealth to the *bumiputras*. The Chinese may say they value the objective of increasing the *bumiputra* stake in the economy, but at the same time do everything they can to get their money out of the country

A Pandora's Box of material wants, generated by the recent conditions of improved opportunity made possible by economic development and technological advancement, has suddenly been flung open in Malaysia. Under these improved economic conditions, Malaysians may retain a balance of their values and wants for things spiritual, aesthetic, and social, but lose a balance of what they in fact pursue, such that the overwhelming bias is towards the utilitarian and material A Malay may continue to value prayer and attending mosque on Fridays, but find that business commitments make these things impossible on many occasions. An Indian may feel the tug of Thaipusam, but decide that instead of spending three days at Batu Caves he will take advantage of the time to paint his house. Thus, the things presumably wanted in ideal terms—particularly those in the spiritual, aesthetic, and social categories of values—are in reality not wanted so much after all, at least in comparative terms. If these things were wanted, they would be more actively pursued: values determine what people do, and if people are pursuing little in certain value domains, it is because things in other value domains are wanted even more. Malaysians are fast approaching that ambiguous phase in industrializing society where they want things that are not the most important to them and where the things that seemingly are most important—solidarity, beauty, spiritual contentment, and so on—are not really wanted What appears to be a liberation from the fundamental problems of existence is in fact becoming a bondage to artificially-created and excessive material wants that circumscribe daily life

It is also important to distinguish who is valuing what for whom: the collective's values for the individual, the collective's values for the collective, the individual's values for the collective, and the individual's values for himself or herself. Most of an individual's wants, given the basic egocentricity of the individual, relate to that person. Some wants are for others—for exam-

ple, a man's for his family, his friends, the groups he belongs to, his society, his country, and his world. Such an individual wants others close to him to have more of what they want, and he assists them to the extent he is able. But once the others become anonymous others, the task is left to the anonymous collective to resolve. A person generally pursues something more intensely when it will benefit himself or someone he knows than he will when it will benefit someone he does not know; when it is short-term in nature than when it is long-term; when it is seemingly attainable than when it is presumed to be unattainable; when it is accepted as worthy of being pursued than when it is not supported by an explicit consensus. All this suggests that people do not really have much desire to solve problems of great magnitude or to pursue things for a collective of individuals of diverse backgrounds and capabilities. This large burden placed on collective pursuits, which supposedly are in accord with the realization of basic values but which in reality are known to be declining in motivational strength, may thus be exceedingly unrealistic.

Emphasis is shifting from the group to the individual. This means that less and less will be sacrificed for the group unless there are demonstrable benefits accruing to the individuals making such sacrifices. Many Malaysians today are concerned only with the way things affect them personally, not with the way they personally affect, or do not affect, things. When they do consider things external to their lives, that consideration often is clouded with rationalized selfishness. This rationalized selfishness is something to watch out for, largely because it has become the justification for much that is less than good in the world, but also because it is often the sole reason for many good things being done at all. In developing countries, it is terribly important to have people doing things for the public interest, not for themselves. Malaysians, who are still close to the traditional values where group concerns prevail over the individual, are thus still close, at least in theory, to being able to do things for the public interest. The likelihood, however, is that, left to their own devices, they will not. New values, or old values freshly cast, must show them the way.

The direction of this line of argument is not that Malaysia is going to become a land of materialistic philistines interested only in acquiring more cars, more houses, more pocket calculators, more colour television sets, more pay for work performed,

more *ringgits* for every *gantang* of produce sold, more and better of this, that, and everything. It is simply that in conditions of order, opportunity, and prosperity these things tend to surface as one consequence of a people's material desires having been suppressed for so long. Suddenly thrust into new conditions, particularly over the last decade, many Malaysians have become like children with unlimited credit in a candy store. This has caused the surface of behaviour to appear a bit jaded, as exemplified by the young businessman who has a car worth more than the house he stays in, or by the young secretary who apologizes to her guests for the decor in her Ampang Jaya link house because she has not yet had an interior decorator in. Material aspirations in Malaysia are rising, and all those who are not yet partaking in all the fruits of order, opportunity, and prosperity want to take part as quickly as possible. This is a stage all industrializing societies go through. But at some point, some people become sated on the surfeit of candy and begin to reflect on other things.

In Malaysia's developmental society, Malaysians have not yet begun to grapple with solidarity, concentrating instead on control, with aesthetic beauty, concentrating instead on utilitarianism, or with the spiritual needs of the individual, concentrating instead on reason and theoretical knowledge. The balance of the individual's pursuits have not yet been sufficiently well aligned. It is possible that economic pursuits indeed hold the greatest attraction and validity for human beings, yet it can be intuited that these are not totally satisfying in themselves. What presumably is desired, then, is to pursue a restoration of the appreciation of social, aesthetic, and spiritual values that previously existed, and in some cases continue to exist, in traditional Malaysian society. This does not mean a return to traditional life. The many values traditionally pursued continue to have validity, but many traditionally valued goods and behaviours are inappropriate to the realities of life in the modern economic setting. Nor does this mean traditional life had a perfect balance, for the economic and theoretical capabilities were often highly deficient. It means that developmental life —which has as its primary emphasis the pursuit of economic wants— needs to be reoriented.

What individuals value and pursue for themselves is, or should be, their own affair, so long as this is within the law. Such things cannot be legislated, for it is the individual's prerogative to value what he or she chooses to value, so long as he or she is

prepared to accept any ill consequences. What the individual and the collective value and pursue for the collective of Malaysian individuals is the business and responsibility of all society. The basic task of society is to maintain conditions of order, opportunity, and prosperity. All governments realize this, and try to make these their main priorities. But few governments effectively gather the consensus of their entire populace in seeking these most fundamental objectives—at least as defined in these terms—by having these legitimately inculcated in the value structures of the citizenry. The internalization of these objectives cannot be legislated either, but things can be presented to the individual so as to favour the adoption of values which facilitate collective pursuits for the collective of individuals. How is such a presentation to be determined and communicated? This will depend on the understanding of how values operate and on the effectiveness of value transmitters in providing attractive options. Just as the problems of society are perceived as being associated with values stemming from the new agents of value transmission, so the hope for improving things in future resides in these same value transmitters.

Malaysians have two options before them. One is to follow in the footsteps of the now-industrialized nations, where social institutions promoting the pursuit of the neglected value domains have largely been destroyed, making it necessary to work from scratch. The other option is to short-circuit the process. This can be done by conceding that the headlong pursuit of economic development and technological advancement entails sacrifices in the social, aesthetic, and spiritual domains, by identifying those social institutions that might be modified and adapted from traditional life to create a better balance in developmental life, and by pursuing that modification. There is no way to predict what will be wanted in the year 2001. It can only be hoped that a balance will be desired and that what is wanted will be more actively pursued. To encourage this, Malaysians today can begin to create the context which will facilitate the pursuit of this balance.

The continuing inquiry

• Should anything conscious and concerted be done to condition values, or should a *laissez-faire* attitude be adopted with the justification that anything consciously done is likely to have undesirable effects?

• What are the important transmitters of values in Malaysia?
What is the content and influence of each? How will this be
changing? It can be intuited that family groups formerly reigned
supreme in the inculcation of values, but that their influence is
now diminishing. More and more of what an individual values is
being conditioned by such agents outside the family as peer
groups, schools, and the media which, wittingly or unwittingly,
are leaving their mark.

• Can anything be done to make these value transmitters offer a
more complete range of values and inculcate a more desirable
set of collective values in individuals?

• Many values cannot and should not be transmitted in the
classroom, but might it not be useful for students to be given a
conceptual vocabulary of values? Just as they are taught letters,
words, and sentence structures to enable them to read, they
could be educated about the nature, character, and influence of
values to enable them to better understand values, value hierar-
chies, and decisions about valued actions and things.

• Which values, together with actions and things that are
valued, impede economic development and all other collective
national objectives? How might these impediments be reinter-
preted or modified with least disruption to the original values?

• What are the things Malaysians want and value in the future?
What are the things Malaysians *most* want and value in the fu-
ture? It is one thing to conjure up a dream world and another
thing to get there. Malaysians clearly want and expect a great
deal for and from the last years of this century, but because of
limited resources and other fundamental constraints, only some
of the many things desired can reasonably be attained. Which
things should these be? Which things, apart from all those not
chosen, will have to be sacrificed to attain them?

• Can it be determined whether the collective undertakings of
the nation are consistent and compatible with individual values
for the collective? More importantly, can anything be done to re-
duce inconsistency and incompatibility where these exist?

• What are the discontinuities and impending changes in the
Malay value system? In the Chinese value system? In the Indian
value system? In the Iban value system? In the Melanau value
system? In the Kadazan value system? In the Bajau value system?
And so on. All of these can be further refined by breaking them
down according to sub-groups, age groups, socio-economic

groups, and geographical groups.

● What are the more important value clashes in Malaysian society today? Dietary habits are of course one of these: the fact that pork is being cooked in a nearby kitchen is of interest to Malays. But there are many other things that seemingly are irreconcilable, like sanitary practices. What one does to cleanse oneself after going to the toilet is neither visible nor spoken about, but nevertheless creates an invisible gulf between the country's people. What will be the more important value clashes in future?

● What are the consensual values of the Malaysian polity?

Controlling
Social Disorder

One question on the minds of most Malaysians is whether and when there will be another May 13th debacle to set back once again the integration of the country's myriad peoples. Malaysia's plural society works remarkably well, but nevertheless remains remarkably fragile and volatile. It works because the people of various ethnic groups can enter into economic and political transactions according to commonly agreed upon rules and then withdraw to ethnic enclaves for the bulk of their social transactions. It remains fragile and volatile because resentment and hostility are present just beneath the surface, and many people periodically brace themselves for another outbreak of communal violence. This basic instability is compounded by the likelihood that the rest of this century will be a period of growing pressures on society: the nation's population will double; the urban population will treble; the family will change from extended to nuclear; and, given the proliferation of values detailed in the preceding chapter, established patterns of social belief and personal interaction will increasingly be challenged. The two chief threats to social order in Malaysia will continue to be the prospects for communal conflict and the breakdown of traditional methods of social control. The first relates to the alienation of ethnic groups, and by extension has an effect on the individual. The second relates to the alienation of the individual, and by extension has a cumulative effect on society. The mitigation of these threats is complex, not least because defusing communal hostility is in many ways contingent upon

the breakdown of traditional society.

For the nation

The necessity for every Malaysian to get along with members of other ethnic groups is generally acknowledged, but by whom and with what urgency? Elites riding in each other's Mercedes-Benzes and chatting with one another at cocktail parties at Kuala Lumpur's hotels can easily delude themselves into thinking that because they are getting along well with members of other ethnic groups, everybody in the country is doing the same. But what about the non-elite—the mee seller who has lost his licence, the clerk who has been passed over for promotion, or the tenant who knows he is being cheated by the landlord? If there is to be another outbreak of violence, these will be the people involved, not the elites basking in Kenny Hills, Ukay Heights, Section 16, and similar enclaves in the other major urban centres of the country. And if there is another outbreak, the causes for it will be political or economic, not social, even though the social effects will be considerable.

It must also be understood that communal conflict will not be the exclusive preserve of Malays and Chinese in the Peninsula, particularly insofar as about five million Malaysians in 2001 will be neither Malay nor Chinese. If the potential for violence between Malaysia's two largest ethnic groups is defused, attention will then have to be focused on other possible disruptions of social order. One of these is the direct analogy of *bumiputra* groups in Sabah and Sarawak, vis-à-vis the Chinese, with the power model of Malays in the Peninsula. A second is the hostility between Muslim and non-Muslim *bumiputras* in the Borneo states. A third is the possibility that the Indians, as the third largest minority, will begin to clamour for increased political and economic rights. For a variety of historical and numerical reasons which need not be probed here, these are unlikely to be of the intensity or consequence of Malay-Chinese hostility. But if there were Iban-Chinese violence in Sibu, for example, the central government's response to this could heighten Malay-Chinese animosity in the Peninsula to the point of conflict. A fourth possibility is conflict within a single communal group—among the Malays, for example. It is doubtful whether anyone considers any of these to be serious threats to society today. Such optimism is in many ways warranted. The situation

may nevertheless change in the future.

The main problem in Malaysian society is not so much that it is communal politically and economically, which of course it is, but that it is communal socially and that too few incursions are being made to reduce this social communality. Social order admittedly is based almost entirely on political and economic equitability. But reductions achieved thus far in political and economic communality have had too little basis in reduced social communality. In other words, the main contexts for ethnic interaction are political and economic—there are few social contexts, and those which exist are in most instances political or economic in origin. This distinction is central to any analysis of the direction communal relations will take in the future. This explains, for example, the inevitable rising resentment of those having their political and economic preserves invaded. Little can be done to reduce political and economic competition. These are facts of life in large societies. Something can be done, however, to reduce communal hostility in social interaction. Social order is difficult to achieve in the context of intense competition, but it may also be that social order established apart from this context makes competition more bearable and indeed more human. Political and economic competition appear certain to be on the increase in the near future. This trend must therefore be counterbalanced, at least in part, by some forms of cooperation. One major task of the coming years will therefore be the development of social institutions that are primarily cooperative and that can reduce the potential for clashes between Malaysia's ethnic groups, of which there are not two or three, but many.

A number of traditional societal systems, most of them very different, have been thrown together in Malaysia's developmental society. Traditional political systems have been superseded by a single developmental political system which absorbs some constituent systems more readily than others. Compare, for example, the degree of politicization among the Malays with that among the Punans of Sarawak. Traditional economic systems are rapidly being superseded by a single developmental economic system. This, too, absorbs some elements more readily than others. Compare, again for example, the participation of Chinese in the modern commercial economy with that of the Malays. Traditional social systems, on the other hand, have no obvious modern models for emulation, except insofar as these have

begun to be superseded by a national social order that, lacking a clear direction of its own, is taking on a western character.

Developmental society competes with the traditional, and as the developmental increasingly supervenes, the traditional gives way. This transition affects each ethnic group in quite different ways. The result is that the various traditional societies that constitute the national society are moving from different bases at different rates towards a national integrity and identity in the developmental context. The interim process is long-term and necessarily fraught with considerable social disorder. The approach adopted in Malaysia to deal with this disorder has not been to create deliberately a new social order that is consistent with political and economic realities in developmental society. Instead, the approach has merely been to reduce the potential for social disorder. This has been done through such mechanisms as enacting laws to declare certain issues as sensitive and to thereby preclude people from engaging in heated discussions that might culminate in open conflict. Nothing is being done with the specific and sole intention of establishing social institutions which might embrace all of the country's peoples.

The chief impediment to establishing a pan-Malaysian social order is, and will continue to be, the insularity of the country's many ethnic groups. Physically and geographically, the members of any one ethnic group live in relative isolation from the others. It is certain that exceptions abound, but some real basis exists for stereotypes that go beyond simple residence. Occupationally, the Malays are in the rice fields, the police and army, and the bureaucracy; the Chinese are in small-scale businesses, urban commerce, and tin-mining; the Indians are in public utilities and the professions; the Ibans are in riverine agriculture; the Bajaus are in fishing and subsistence along the coastal fringe. Educationally, the Malays, the Chinese, the Indians, and the Dusuns all have their own schools. Spiritually, the Malays are Muslim, the Chinese Buddhist, the Indians Hindu, and the Muruts animist. Even in the presumed propinquity of housing developments and squatters' villages, there is a distinct ethnic character. Involved in this is the much-documented historical basis, but there is also a strong element of choice based on more than whether pork is being prepared in a nearby kitchen. This insularity means that dealings between the members of different ethnic groups are more casual and utilitarian than concerted and sympathetic.

Malaysians may pass each other on the street and make transactions in the markets and budding shopping complexes, but there basically is an avoidance of glance and interaction. This pattern is enhanced by the ease of withdrawal to the ethnic enclaves that seem certain to be a feature of urban life for some time to come.

Reinforcing this insularity is the simple inability of many people to communicate with others of ethnic groups different from their own. Many Malaysians delude themselves with the satisfaction of being able to utter the few Malay, Cantonese, or Tamil phrases they picked up during childhood. But the potential for really understanding what another person is saying, which is sufficiently difficult even for two people who speak the same language, is low. It was estimated in 1970 that a mere 30 percent of the Malaysian populace could speak a language other than their own and effectively communicate their impressions, ideas, and feelings to someone outside their own ethnic group. And it is the nature of man that, unable, he is soon undesirous. Given these linguistic and motivational barriers to communication, the pattern of most people is to withdraw to the familiar. This withdrawal has serious implications for the abilities of members of different ethnic groups to establish social relationships with one another, relationships which in most instances can be based only on shared experience or the conversational sharing of past experience.

Casual contact among members of the various ethnic groups and their inability to communicate with one another give rise to ethnocentric manifestations that act as additional barriers to communication and sympathetic interaction. All people are fundamentally ethnocentric. The Malays regard the solutions embodied in their ethnic culture concerning valued goods and valued behaviour as superior to those carried by the cultures of other ethnic groups. But so do the Chinese, the Indians, and the Ibans. So also do the various subgroups: the Kelantanese and Minangkabaus; the Hakkas and Teochews; the Tamils and Sikhs; the Suluks and Ilanuns. Ethnocentricity is fueled mainly by ignorance of other ethnic groups, and casual contact serves only to reinforce this ignorance. Thus, members of one ethnic group continue to perceive members of others as stereotypes of that ethnic group, not as individuals. Men and women do have the capacity to be tolerant and generous in their dealings with others, but ethnocentricity can usually be sublimated only in the con-

text of communication and sympathetic interaction. If these dealings are without meaning and emotional investment, there is little incentive for restraint, and ethnocentric manifestations will continue to flourish.

The primary arenas for inter-ethnic interactions over the next few decades will be in urban areas, which will experience great influxes of people of all ethnic groups. The 1975 population of 12 million was roughly two-thirds rural and one-third urban; by the year 2001, more than half the population of roughly 25 million will be urban. The change in fractions may not appear that dramatic, but the implications are: while the rural population increases by about one-half, the urban population increases three-fold. The present pattern of drifting to urban enclaves will continue, if for no other reason than that new urban migrants will be the least experienced in venturing forth from their ethnic co-coons. Contact, therefore, will for some time continue to be largely casual, not concerted. This will reinforce ethnocentricity because of more frequent exposure to inter-ethnic stimuli. Nevertheless, two things will serve to reduce the ethnocentricity that stems from insularity: a common language and better understanding of the people in other ethnic groups.

Today, the national language, *Bahasa Malaysia*, is seen more as an economic bludgeon with considerable potential for divisiveness than as an instrument for social unification. With promotion stifled and efforts quashed in M.C.E. examinations because of below-par performance in *Bahasa*, many non-Malays see the national language as a plague on their occupational and academic pursuits. It may be that students will come out of the educational system being not really facile in any language, that the ability of Malaysians to communicate with the rest of the world will decline, and that Malaysia will be cutting itself off from the literature and invention developed elsewhere. Some go so far as to view this process as the intellectual sacrifice of an entire generation. But others, and there are some non-Malays among them, feel that the sacrifice, if it be such, will be recognized in the future as justified. It is undeniable that there are political and economic motivations for the language policy. The choice of *Bahasa* as the national language gives Malays a selective advantage in economic and occupational undertakings, but it is precisely this advantage which is seen as instrumental to holding Malaysian society together and reducing the economic

bases for ethnic clashes. Equally undeniable are the opportunities for social cohesion. Not nearly enough is being done, however, to couch the language policy in terms of the social benefits it can bring. In sum, a common language will greatly enhance the possibilities for communication and sympathetic interaction in common undertakings and common projects.

The second prospect for improving ethnic relations is that Malaysians may acquire greater understanding of the cultural traits and characteristics of other ethnic groups. Malaysians today are inordinately incurious about the life styles of members of other ethnic groups. They may wonder about the vermillion dot on the forehead of a passing Indian, about the white cap and veil of a passing Malay *hajjah*, or about the music accompanying a Chinese funeral procession, but their curiosity is insufficient to push them to ask what it is all about. They chuckle inwardly, more bemused by cultural oddities than interested in cultural differences. Much of what is perceived is in fact interpreted in a manner that reinforces ethnic stereotypes and perpetuates interethnic distance and aversion. Something must therefore be done to create an awareness of the other cultures and of the real concerns of members of the various ethnic groups.

The problem today is that the responsibility for this task is given to the schools. The feeling is that if something is to be learned, only the schools can transmit it effectively. The fact that the paper, Cultures of Malaysia, is no longer offered to school certificate candidates is frequently cited and taken to demonstrate that the schools have opted out of their responsibility. Consequently, much of the blame for cross-cultural ignorance is laid on schools. But schools can serve only as preliminary contexts for inter-ethnic relations, never as a primary context, and cross-cultural education must be an ongoing process. The schools, moreover, are already sufficiently beleaguered with the difficulties of giving young Malaysians the skills to read, write, and compute so that they can assume positions in the modern economy. All locally produced agents of education — books, newspapers, magazines, radio and television programmes, and the like — must therefore assume the added functions of teaching Malaysians about each other. Experience, of course, is the best teacher. The best way for people to learn about others may well be to spend time with them in peer groups, sports groups, travel clubs, consumer organizations, or any other kind of social group

Short-lived common projects, undertaken in some cooperative venture outside the economic and political context, can fulfill the same function. These groups and projects, if treated correctly, can provide the context for pan-communal interaction. There nevertheless are two obstacles: individuals in the urban setting have the tendency to withdraw to their families; the groups to which they are most attracted are communal in nature. Because this results in a low commitment to pan-communal groups, a situation again arises that is more casual than concerted. Involvement in these groups would thus likely give rise to ethnocentric manifestations, precisely the thing they might transcend.

Efforts made to broaden cultural understanding have thus far concentrated only on the visible — on festivals, ceremonies, and traditions. For many Malaysians, particularly the young, such vestiges of culture are declining in meaning. This makes it far more important for people to learn about ethnic characteristics, particularly about those things relating to interaction, so that blunders can be avoided. For example, a Chinese can be bluntly and unceremoniously told: Go and do this. A Malay cannot be instructed this way. With a Malay, the request has to be made in a sensible manner and couched in polite terms. Similarly, when one asks an Indian to do something, there must be some physical contact — a pat on the shoulder or a hand held in a prolonged handshake. If these nuances are ignored, ethnic barriers are immediately raised. It is also important for people to learn about the range of expression and variance permissible in a particular ethnic society: the traits and quirks, manners and rituals, interests and aversions. Only then can the emphasis shift from largely irrelevant cultural caricatures to the problems faced by the young. Malaysia is, after all, a society in transition. This makes it all the more necessary to look not at the petrified forests of cultural elements, but at the process of societal transition and the ultimate direction of society, both of which are intangible and elusive. Only then can the emphasis shift from highlighting the many differences between ethnic groups to understanding their fundamental similarities.

One critical hurdle to this understanding is presented by stereotypes and must be overcome. Beginning from a base of ignorance and misconceptions, it is far simpler to synthesize the behaviour of others into stereotypes than to attempt understanding this behaviour. Thus: Malays are lazy; Chinese are money-

grubbing; Indians cannot stop themselves from talking. This is the way man simplifies his universe. Observations that conflict with these stereotypes—like the sight of an industrious Malay or a genteel Chinese—are difficult to handle and interpret, so when such instances are encountered the tendency is to ignore them. But there is a point when new observations, instead of pushing the observer back into his stereotypical comfort, can push him forward to greater understanding and sympathy. Up to a point, new inputs are greeted with antipathy, but when the inputs combine to produce that first measure of understanding, then future inputs can be received with greater sympathy. For this process to occur, two preconditions are necessary. First, there must be greater knowledge of the ways of other ethnic groups. Second, there must be a pan-cultural paradigm that permits cultural manifestations on one level, but specific and pan-Malaysian manifestations on another level. Today, nothing is Malaysian. Instead, actions and objects are Malay, Chinese, Indian, Iban, or western. This explains in part the alacrity with which things western are adopted—these are not loaded with ethnic overtones nor sensitive to traditional ethnocentric manifestations, but instead are essentially neutral.

The fact that a pan-cultural paradigm has not already begun to take shape is a function of the degree of ambiguity which surrounds the future of the cross-ethnic interactions in Malaysia's highly plural society. Fears exist about the ability of Malaysia's minority groups to retain their cultural integrity. These fears are heightened by the imperatives of Malay-ness in occupational and academic contexts. The essence of the matter is this: Are the various ethnic groups, in conventional sociological jargon, to amalgamate, assimilate, integrate, or segregate? Intermarriage is the crux of amalgamation, and many Malaysians see this as the best solution to Malaysia's social problems. But intermarriage can only result from, not in, inter-ethnic solidarity, making it a measure of solidarity, not a means to it. Cultural one-ness is the crux of assimilation, and many Malays—taking Malay culture as the baseline for Malaysian culture—see this as the best solution. But assimilation would require the assimilating groups to give up their cultures. This, they understandably are unwilling to do. Accommodation in a variety of routine situations and transactions, while maintaining cultural integrity in the family, is the crux of integration, and many non-Malays see this as the best solution

for keeping society in one piece. But the ground rules for acting out roles in this context are as yet vague and ill-defined. Isolation is the essence of segregation, and some Malaysians see this as the only way to resolve such fundamental differences as exist in religion and dietary habits. But this pattern simply defers the issue which will fester with the increasing urbanization that militates against isolation. Clearly, various members of the various groups are doing all these things to varying degree.

Must a choice be made? Or, indeed, can a choice be made? Because the issue of ethnic interaction is highly charged with emotion, no top politician is willing to take the risk of even discussing the development of an acceptable policy. As a result, there prevails the safe notion of picking and choosing the best elements of each traditional culture and blending these into a *truly Malaysian culture*. A nice idea, but such a culture would inevitably be highly artificial. Moreover, it would be delusive to think that the differences among the country's many ethnic groups will disappear in deference to the emergence of a new Malaysian culture. In 2001, the Malays will still be essentially Malay; the Chinese, Chinese; the Indians, Indian; and the Ibans, Iban. Malaysia will continue to be poly-cultural, but it will be very complex poly-culturally because of the blurring along the ethnic edges that will result from liberalism, intermarriage, secularization, urbanization, and modernization. The culture and life style that ultimately emerge will doubtless emerge more by default than design. Consequently, social solidarity in Malaysia will not depend on such physical manifestations as whether the same language is spoken, whether the same dress is worn, or even whether the same things are done. It will depend on the actual quality and quantity of collaboration among the various communities. It nevertheless is true that similar outward manifestations tend to facilitate collaboration by removing some of the barriers.

Although ethnicity will continue to influence deeper cultural patterns, it will dictate the outward life styles less and less. This trend suggests that, in 2001, the external and visible traits of Malaysians will be very similar and that a highly amorphous, ill-defined, lowest-common-denominator life style will emerge to overlay the various ethnic cultures. It will not have much of a Malaysian flavour. In the process, there will be a blurring of the emotional boundaries between ethnic groups as a result of the

differential effects of having some people amalgamate, some assimilate, some integrate, and some segregate. As this pattern progresses in Malaysia, the alignment of society will become more complex.

In traditional society, the alignment of society was almost entirely communal. Interactions were couched in terms of us and them, with them referring to everyone the individual came into contact with who was not of his own ethnic group. In developmental society, this ethnic alignment continues, but it is at the same time overlaid with alignments that cross-cut ethnic lines. These include class alignments, special interest alignments, regional alignments, and residential alignments. In the foreseeable future, communal groups will continue to unite, on matters of importance, to the exclusion of those from other ethnic groups. Because this tendency runs against new societal alignments, confusion will reign as to appropriate loyalties. There will nevertheless be a time when these other alignments begin to take precedence. That is, the Malay senior civil servant will increasingly have more in common with his Chinese counterpart—the car, the house in Petaling Jaya, the social circuit, the sports club, the schools the children attend in England—than with a Malay padi farmer or cycle boy. The Malay office boy, on the other hand, will have more in common with his Chinese counterpart—the motorcycle, the shared linkhouse, the evenings spent skating at the ice rink. In situations of work, leisure, and routine transactions, the individual will increasingly be coming into contact with more and more members of other ethnic groups, and increasingly, these interactions will become more sympathetic than antagonistic. The trend worldwide is for socio-economic alignments to compete with and take precedence over ethnic alignments. The process is very long term, and in the interim, people will continue to fall back on ethnic alignments because they are useful and clear-cut. But one day they will turn to other alignments that have little to do with ethnicity. The question is how to manage things in this interim of transition.

With a common language, with greater cross-cultural understanding, and with adherence to more valued behaviours and goods that are shared across ethnic lines, the potential for decommunalizing Malaysian society will steadily increase. Although decommunalization is seen as desirable, the manner in which it occurs is critical. The basic parameters are these:

political and economic pursuits, although cooperative in traditional society, are fundamentally competitive in developmental society; social pursuits, although fundamentally cooperative in both, take on a competitive character in the ambiguous developmental social context because of the spin-off from political and economic pursuits. The forces prevailing in each domain of these activities affect forces prevailing in the others: political and economic conflict can invade and disrupt the social order; social cooperation can invade the political and the economic domains and preclude conflict. All forms of pan-ethnic social cooperation should thus be identified and fostered.

It may nevertheless turn out that if social decommunalization is pushed for too quickly, the fundamental competitiveness of the political and economic domains will spill over into the social domain, making that competitive as well. If, however, some cooperative elements of the traditional social order can be kept intact, and some new ones can be created, it may be possible for this cooperation to spill over into the political and economic domains, or at least keep competitiveness at bay. This process can occur if more ethnic interactions are consciously shifted from anonymous urban transactions to social group affiliations. Today, these group affiliations remain rigidly communal, in attitude if not in membership composition. As a result, substantial social benefits are offered to communal group members with few social costs. But the risks of ethnic competition and conflict are high because of the relative infrequency of cross-ethnic communication and interaction. A partially decommunalized social order—typified by gradually increasing multi-ethnicity in group attitudes and membership—would offer fewer social benefits to the individual with greater social costs. If the interactions in pan-communal social groups were to become more and more sympathetic, the risks of ethnic conflict would be considerably reduced. Because decommunalization seems inevitable in any case, pan-communal social groups might be consciously and cautiously formed. These would then help weave a new fabric of Malaysian society in accord with changing political and economic realities.

For the individual

In the many traditional societies that were combined to constitute Malaysian society (and which subsequently lost much of

their earlier integrity in the face of modern options) the primary
orientation was to the group, not the individual. The primary pur-
suit was for public order and well-being, not individual freedom.
This was true of traditional Malay society as of traditional
Sikh or Hakka society. Institutionalized structures were rigid.
Interactions were both in accord with expectation and highly
regular. And the restraint of the individual, in deference to the
group, was considerable. Social, political, and economic activi-
ties were tightly interwoven to generate a high degree of societal
integrity and a strong sense of societal identity. The social order
of this process explains the fond regard Malaysians typically
have for traditional life. But it often is forgotten that individual
freedom was very restricted. Individuals had very few choices
about what they did occupationally, about the places where
they lived, about the people they talked with, and even about
the persons they married.

As has been indicated in the preceding chapter, the primary
orientation in a developmental society like Malaysia's is in-
creasingly shifting towards the individual; the primary pursuit,
towards the individual's freedom. The traditional orientation
does not disappear immediately or completely, but more and
more of it is whittled away every day. One result of this shift is
disorder. Development is a change from the previously existing
order and in itself necessarily creates disorder. Institutionalized
structures are modified or supplanted to become all-embracing
Interactions become less predictable, less personal, and hence
less regular. Individual restraint is steadily reduced, insofar as it
is influenced not so much by social sanctions as by societally
imposed controls. And these can frequently be circumvented
without adverse consequences. In a context of anonymity, the
prescriptions for the individual's behaviour gradually fall away
and the options for individual expression proliferate. Compare
the freedom of a Malay girl who gets a job in Kuala Lumpur after
having graduated from the University of Malaya with the free-
dom of her sister who stays in the kampung with her parents.
Great personal freedom is one of the greatest attractions of
developmental society, but accompanying this freedom is the
loss of many advantages of traditional life. There are few
guidelines about appropriate behaviour in new and unfamiliar
situations. This lack can lead to feelings of confusion and guilt.
There is no network of people to rely on for company or for help,

and this can lead to the individual's feeling very much alone. In facing the increasing disorder that seems certain to be a fixed feature of life in the years ahead, much more must be done than merely attempt to reduce the potential for disorder. Society must assume some of the responsibility for orchestrating the restraint of individual pursuits, because these are known to be prejudicial to total societal order, and for creating a new developmental order that is instrumental to these same pursuits.

Almost everywhere in Malaysia, the many symptoms of the breakdown of the traditional social order are evident. Social, economic, and political activities are increasingly being undertaken in separate arenas, not in a single arena, and the people with whom these are undertaken are becoming more disparate. The nuclear family is supplanting the extended family as the basic living unit. The functions of the family are increasingly being invalidated by the takeover of these functions by schools, work groups, and other institutions. Society's younger members are less than responsive to the traditional system of authority, initially in the family where the father is no longer the font of information and knowledge, then in society at large. Communication between the old and young is disintegrating because older members of society are rigidly holding onto their traditional expectations and aspirations and younger members are experimenting with developmental expectations and aspirations. The adherence by the young to the notion that they have a responsibility to ageing parents and family members is declining. The old are demonstrating increasing concern that they will be abandoned, physically and emotionally, by their children. There is also a decline in the adherence to ritual, whether in religion or in the family, in prayer or in the family traditions at festive occasions. Patterns of neighbourly cooperation are more and more being supplanted by impersonal transactions, and this occasions a decline in group solidarity and interpersonal ethical responsibility. This catalogue is only the tip of the modern iceberg, but any Malaysian can easily find manifestations of each of these symptoms in his or her own experience.

Nobody knows quite what the essence of social order is in the developmental context. In the transition from a traditional to a developmental social system, one thing is certain. There is a marked increase in the options for individual behaviour. This situation arises because the individual can seek confirmation for his

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orientation was to the group, not the individual. The primary pur-
suit was for public order and well-being, not individual freedom.
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creasingly shifting towards the individual; the primary pursuit,
towards the individual's freedom. The traditional orientation
does not disappear immediately or completely, but more and
more of it is whittled away every day. One result of this shift is
disorder. Development is a change from the previously existing
order and in itself necessarily creates disorder. Institutionalized
structures are modified or supplanted to become all-embracing.
Interactions become less predictable, less personal, and hence
less regular. Individual restraint is steadily reducing, insofar as it
is influenced not so much by social sanctions as by societally
imposed controls. And these can frequently be circumvented
without adverse consequences. In a context of anonymity, the
prescriptions for the individual's behaviour gradually fall away
and the options for individual expression proliferate. Compare
the freedom of a Malay girl who gets a job in Kuala Lumpur after
having graduated from the University of Malaya with the free-
dom of her sister who stays in the *kampung* with her parents.
Great personal freedom is one of the greatest attractions of
developmental society, but accompanying this freedom is the
loss of many advantages of traditional life. There are few
guidelines about appropriate behaviour in new and unfamiliar
situations. This lack can lead to feelings of confusion and guilt.
There is no network of people to rely on for company or for help,

and this can lead to the individual's feeling very much alone. In facing the increasing disorder that seems certain to be a fixed feature of life in the years ahead, much more must be done than merely attempt to reduce the potential for disorder. Society must assume some of the responsibility for orchestrating the restraint of individual pursuits, because these are known to be prejudicial to total societal order, and for creating a new developmental order that is instrumental to these same pursuits.

Almost everywhere in Malaysia, the many symptoms of the breakdown of the traditional social order are evident. Social, economic, and political activities are increasingly being undertaken in separate arenas, not in a single arena, and the people with whom these are undertaken are becoming more disparate. The nuclear family is supplanting the extended family as the basic living unit. The functions of the family are increasingly being invalidated by the takeover of these functions by schools, work groups, and other institutions. Society's younger members are less than responsive to the traditional system of authority, initially in the family where the father is no longer the font of information and knowledge, then in society at large. Communication between the old and young is disintegrating because older members of society are rigidly holding onto their traditional expectations and aspirations and younger members are experimenting with developmental expectations and aspirations. The adherence by the young to the notion that they have a responsibility to ageing parents and family members is declining. The old are demonstrating increasing concern that they will be abandoned, physically and emotionally, by their children. There is also a decline in the adherence to ritual, whether in religion or in the family, in prayer or in the family traditions at festive occasions. Patterns of neighbourly cooperation are more and more being supplanted by impersonal transactions, and this occasions a decline in group solidarity and interpersonal ethical responsibility. This catalogue is only the tip of the modern iceberg, but any Malaysian can easily find manifestations of each of these symptoms in his or her own experience.

Nobody knows quite what the essence of social order is in the developmental context. In the transition from a traditional to a developmental social system, one thing is certain. There is a marked increase in the options for individual behaviour. This situation arises because the individual can seek confirmation for his

or her actions from a variety of alternative sources or can ignore confirmation altogether. In traditional society, individuals were guided by a series of authoritarian instructions—in religion, in the family, in the community, in the political context—about what they could or could not do. Everything was all very clear. In developmental society, these instructions no longer apply, and individuals must suddenly make their decisions themselves. Because of their inexperience in making decisions, they usually do not have much faith in their own abilities, so they look to one or another of the new value transmitters—newspapers, movies, television, peer groups, and so on—to be told what to do. But the voices are not so loud or immediate, and there are many more of them, making it possible to listen first to one, then to another. Moreover, as the traditional social system breaks down, it is not immediately replaced by the developmental social system which must eventually emerge to transcend all the various traditional social systems. This institutional vacuum is filled in the political and economic realms, where some external models exist for emulation. But because of the absence of institutionalized guidelines for social behaviour, the institutional vacuum is not filled in the social realm, and social order is necessarily sacrificed. Given this ambiguity—out of the control of the family and residential group—law, although limited, becomes a primary method of social control. But law is proscriptive, not prescriptive. It tells people what not to do, not what to do, and this makes it easy for the individual to justify socially immoral acts that are perfectly legal.

Because of the avowed pursuit of new political and economic objectives, the breakdown of all traditional social systems is unavoidable. Essentially, the breakdown is occurring and will in future be accelerated, particularly in urban areas. As already noted, some traditional social elements do provide anchors to stabilize the effects of experimentation and adaptation in the political and economic domains, but gradually these elements will fall away. New elements cannot be created from thin air to replace them. These must emerge naturally. But it may also be that, just as traditional elements can be slowed in their disappearance, fresh developmental elements, once identified, can be made to appear more quickly. For this to be possible, Malaysians must be aware of what is happening to them and of what is going to happen to them, so that they can better anticipate and deal

with social changes. In essence, the developmental transition in the individual's social domain involves a shift from the guidelines of traditional society to those of developmental society. Although the former guidelines are clear, the latter are indistinct. Consequently, the capacity to direct positively the developmental transition in the social domain inheres in an understanding of the basic elements involved in the transition—the changes in the nature of, and approaches to, group affiliations that form the basis of social order.

In traditional society, the extended kinship group was the primary group for social, political, or economic affiliations. In the mind of the individual, belonging to a kinship group was the most important membership. Solidarity had of necessity to be high because the kinship group was the context for most activities. With this high degree of interdependence, people had to get along with each other, or suffer adverse consequences. The individual in traditional society also associated with neighbours, those with similar interests, and those possessing similar skills. These voluntary affiliations tended to be subsidiary to the kinship group, small in number, and long in duration, often lasting a lifetime. In addition to these primary and voluntary affiliations, there were also a small number of involuntary or necessary associations that resulted from interaction with the outside world. These usually were short in duration. Given these circumstances of affiliation, social control was effected by the predictability of behaviour based upon shared cultural values, societal sanctions, and agreed-upon codes of ethics, conduct, and manners. Because of the primacy of the kinship group, the subsidiary nature of voluntary affiliations, and the infrequency of involuntary contacts, the character of all of an individual's interactions tended to be imbued with the restrained and predictable style of interaction appropriate to the kinship group.

In developmental society, because of mobility, sought privacy, education, urbanization, and a host of other factors, there is a marked change in the configuration of the individual's affiliations. Because of the fragmentation of political, social, and economic activities, the primary group of the extended family is attenuated to the nuclear family. The non-familiar voluntary affiliations, instead of being enduring, become much more short-lived—a pattern which reduces the individual's commitment to these affiliations and his involvement in them. Similarly, the indi-

vidual's necessary and impersonal contacts proliferate. Because the nuclear family reigns supreme, relationships with members of the extended family increasingly take on the non-committal character of voluntary associations. So long as these relationships are in some way rewarding, these are maintained. But once these become a burden, they are suddenly avoided. Because voluntary and involuntary affiliations now occupy the bulk of the individual's time, the non-committal style of impersonal interaction increasingly imbues all his relationships. The individual becomes more impersonal in all his dealings. Ultimately, this threatens even the supremacy and permanence of the nuclear family. The individual, being non-committal and withdrawing in his short-lived voluntary and involuntary affiliations, becomes non-committal and withdrawing even in his relationships with members of the nuclear family. The behavioural mode is in his repertoire, and it is applied to more and more situations.

This pattern has not yet become embedded in Malaysian society. Its incidence is nevertheless on the increase and inevitably moving towards the situation in, say, the United States where people move in and out of nuclear family arrangements with the same facility and alacrity with which they move in and out of occupational or social group affiliations. The reasons for this declining commitment to enduring relationships are clear. As behaviour becomes less predictable because of the profusion of valued behaviours and goods, as systems of societal sanctions becomes less and less applicable, and as codes of ethical conduct become less and less relevant, the behavioural options of the individual proliferate. The myth of dependence on, or interdependence with, the extended family group is replaced by the myth of independence. The notion that the group will take care of the individual is replaced with the notion that the individual not only can, but must take care of himself. The myth of central authority vested in the fatherhead is replaced with the myth of freedom of action. The importance of solidarity is replaced with the importance of control over others and freedom from control by others. The individual, in this context, begins to be alienated from society.

The trend in Malaysian society, inexorable but not necessarily inevitable, is for commitments to decline in relationships with others and for more and more interpersonal dealings to be treated in impersonal fashion. Traditional social cohesion stemmed

from the predominance of the extended family and the individual's imbuing all interpersonal relationships with a family-like approach. Developmental society is being pulled apart by the predominance of voluntary and involuntary affiliations and the imbuing of primary relationships with a non-committal approach. But because of the residual strength, albeit declining, of the family in Malaysian society, the potential still exists for transferring the behavioural mode for family affiliations to the individual's approach to social group affiliations. It should be possible for Malaysians to imbue more of their affiliations with the modes of behaviour practiced in the family and with the commitments inherent therein. This conclusion bears restatement. The potential exists for transferring an existing interpersonal approach from one situation to another, but only so long as that approach exists. How this might be done and, indeed, whether this can be done are beyond the scope of this commentary. This notion nevertheless contains an opportunity which, if not soon grasped, will soon be lost forever.

The continuing inquiry

• What things contribute most to social order in Malaysia today? What processes facilitate and impede their perpetuation? What are some of the likely ways these might be redirected to create a more compatible context for individual pursuits in the year 2001?

• Should the social aspects — the cultural, experiential, and interactional aspects — of societal order be forgotten in deference to the political and economic aspects, which may in fact be much more important? May 13th is memorable because of the challenges to certain fundamental political myths and the expressions of political and economic frustration, not because of problems originating in modernization, urbanization, cross-cultural understanding, or group affiliations. Might it not also be that greater social solidarity and finesse would have precluded May 13th and the subsequent rise in communal hostility? Are social solidarity and finesse possible only when political and economic tensions are better resolved? Operating is a vicious circle, the links of which must be better understood.

• What indicators might be closely and continuously observed to determine whether ethnic relations are improving or degenerating?

• What are the scenarios for ethnic conflict in future? Do the

Chinese still think they will one day be forced to leave the country, as happened in Indonesia in 1967? The rich are making preparations for departure, and this has since filtered down to the professionals. Many non-Malays who have the money to emigrate are in the process of so doing, so that once a conflagration is imminent, they can get out. But do they fear tanks coming over the northern frontier or another Malay outburst? Or do they say one when they mean the other? How do the notions that 'the Malays are generously letting the non-Malays stay in Malaysia' and that 'the non-Malays should be thankful for what they have and expect no more' fit in with all this?

• What are the ethnic myths that, if severely challenged, will push Malaysians into violent conflict? One of the best ways to disrupt society is to challenge rigid values. This happened in 1969 when the Chinese challenged a rigid Malay political value, and it almost happened in 1973-74 when the Malays, utilizing government, challenged some rigid Chinese economic values. Myth plays an important part in all this. Malays value the myth that Malaysia is the land of the Malays. When this is challenged, they react viscerally. Chinese value the myth that through education, effort, and frugality, the maximum can be achieved from any situation, however difficult. When education and effort are thwarted, they react viscerally as well. When certain myths are challenged, life itself is challenged, so rigid are these myths in their respective value systems.

• How many non-Malays feel that the Malays won the country in 1969 and have since been rubbing every non-Malay nose with their new confidence and aggressiveness? An unhealthy amount of sublimated resentment seems to be floating around the country, stemming, for example, from emphasis on Bahasa, which many non-Malays regard as a sign of defeat. How can sublimated resentment, whether of Malays or non-Malays, be monitored and mitigated to prevent social and political stability from disintegrating?

• What things will serve to reduce communal hostility in future? For example, the fact that the Chinese are essentially secular; the disappearance of citizenship as an issue; the subversion by modernizing influences of so much of the traditional; new systems of social control; a common language; declining ethnocentricity; cooperation in common projects. What things will serve to reinforce communal hostility in future?

• Does the Muslim stance on Islam facilitate or impede social order? Is Islam being used as a communal tool and a cloak for Malay nationalism, or as a cohesive tool and a means for greater tolerance?

• What can be done to create social institutions with the primary objective of increasing cooperation and understanding among Malaysia's many ethnic groups? The danger in this is the blatantly propagandistic effort—like some of the government media's weak attempts which force, but do not forge, a new social order. Are there things to be learned from some of the world's other plural societies which might be applied, or at least considered, in Malaysia?

• How might the values, interests, and concerns of other ethnic groups be better understood? Should there not almost be a manual of instructions for dealing with members of other ethnic groups?

• What are the occupational, linguistic, geographical, and other boundaries of social interaction?

• What pan-communal social group affiliations are available to Malaysians in the cities? In rural areas?

• What will be the likely basis, if any, for the evolution of a Malaysian life style?

• What would be the basic tenets of a realistic and attainable social policy? The ideals embodied in the *rukunegara* serve as an adequate beginning, but how, if at all, are these to be fully operationalized?

Containing
Political Turmoil

In Malaysia, as in other modern states, many groups—differentiated according to ethnic origin, religion, region, occupation, and other special interests—are involved in the struggle for power to make and enforce the rules which are applied to all of society. Necessarily, only one, or at most some, of these groups can in fact be in power. Government cannot be responsive to the interests of one group to the exclusion of all others. If it were so highly concentrated, there would be considerable disaffection felt by those who did not have their interests represented. Conversely, government cannot be responsive to the interests of all groups in society. If it were so highly fragmented, it would possess little effectiveness. Thus, the fewer the interest groups in power, the less the popular support and legitimacy; the more the interest groups in power, the less the effectiveness. Because interests in Malaysia are plural, power must be balanced for maximum support, legitimacy, and effectiveness to be achieved. When power is balanced, it is possible for the powers of government to be restrained in deference to the protection of individual freedoms. It is also possible for the widespread participation of the citizenry to be enlisted, directly or indirectly, in the process of government. Striking this balance is never a simple matter.

The main task in Malaysian politics is to preserve enough order to ensure that the work of society is effectively performed. One way to establish political order is by consensus, whereby those who rule are placed in power by those who are ruled. Another is by fiat, whereby those who rule have grasped power and

exact discipline from the people by applying rigid legal controls. Rule by consensus is legitimate and basically stable; rule by fiat, however orderly it may appear, lacks legitimacy and hence is basically unstable. Because long-term political order is dependent on underlying stability, the form of government gravitates towards rule by consensus: those who rule can then feel that their actions are morally justified by a mandate from the people; those who are ruled then feel a moral compulsion to accept discipline because they have selected representatives and leaders to govern their affairs.

The ultimate political form of rule by consensus is based upon the autonomous individual and the validating system of responsible electorates. But it is also important for the rules, which define the rights and duties of those who govern and those who are governed, to be highly compatible with cultural values and traditions. If there is little compatibility, there is little stability. It may be, for example, that rule by consensus runs counter to societal realities in Malaysia: the individual may not want, or be accustomed to, autonomy; the validating system may be disruptive of society as a whole; the electorates may not be responsible. Achieving this compatibility becomes much more complex when cultural values and traditions are changing for different people at different rates and when the rules are also changing, but not necessarily in accord with cultural changes. This is the present situation in Malaysia.

Unstable elements

Malaysian politics, even though resolved in an equilibrium that has made the country's government one of the more orderly in the region, nevertheless exhibit many essentially non-democratic features which threaten stability. These features include the limitations on the adversary process, the autocratic character of decision-making, the communal character of political alignments, the totalitarian methods of political control, and the patterns of absorbing dissidence and suppressing dissent. True, each of these features provides for political order, but for a political order which is essentially unstable in the long term because of the increasing incompatibility of its non-democratic elements with changing socio-cultural realities.

Like most governments, the Malaysian government engages in the exercise of holding periodic elections to achieve legitimacy.

The degree of legitimacy that actually can be achieved is direct-
ly related to the degree of choice the electorate has in selecting
representatives at various levels of government. Except for a few
instances, the choices offered in federal and state elections have
been quite broad. But even though representatives are elected to
state assemblies and federal seats, their elections in fact have a
strongly appointive character. Decisions as to who stands for a
particular seat usually are made centrally, not in the constitu-
ency itself. This procedure has the effect of ensuring that elected
representatives are more responsive to central leadership than to
their constituents. In this sense, the adversary process is not fully
free, even though it is fairly and commendably open. The
element of choice at local level in the Peninsula has been
completely removed with the suspension of elections to local
government bodies, which are now appointive. This suspension is
regrettable because local politics usually serve as the training
ground for future political talent. Moreover, given the
perceived advantages of suspending the free adversary pro-
cess at local level, the notion invariably prevails that, again in
the interests of efficacy, elections should also be suspended at
state and federal levels. The alternative—that federal and state
patterns can influence the local style—is also possible, but it is
the direction of actual tendencies that bears watching.

Political decisions are currently made at the top and filtered
down. Seldom are these based on opinions flowing up from
people at the grass-roots level. In addition, important political
decisions typically are not made by majority vote after open dis-
cussion. Instead, bloc support based on party alignment is exact-
ed from the less influential politicians who owe their positions to
the party, not to the electorate, and who consequently are more
obliged to comply with party imperatives than with constituency
sentiments. The justification for these patterns is that the leaders
alone know what is best for the entire nation, an approach which
works well when the leaders have considerable wisdom, but
breaks down when they do not. The character of Malaysian de-
mocracy, then, is highly authoritarian, and this contradiction in
terms accurately reflects one major contradiction of Malaysian
politics. Still, there is stability, and the essence of this stability
resides in the degree to which democratic and authoritarian
methods are appropriately balanced. To be fully authoritarian
would be to sacrifice much of the protection of individual and

group rights inherent in the democratic style; to be fully democratic would be to sacrifice much of the efficiency inherent in the authoritarian style. The more that the authoritarian style takes precedence, the greater the political order, but the less the stability of that order in the long term. Conversely, the more the democratic style takes precedence, the less the existing political order, but the greater the stability of that order in the long term.

Malaysian politics, with few exceptions, are communal. The basic equations have been that Malay *(bumiputra)* political power more or less equals Chinese economic power and that gains in Malay economic power should be accompanied by gains in Chinese political power. It is felt that it would be impossible to keep these equations balanced in the context of a multi-racial party. As a result, party membership has typically been restricted to members of a single communal group, a pattern which indicates that communal issues and interests are the most important concerns of voters. The assumption is that only the communal party can effectively represent the interests of the communal group. But communal alignments are unnatural, at least insofar as members are often enjoined to support candidates and policies which may not be in their immediate interests, but only in the interests of the communal group as a whole. Because there are no alternative channels for expression, frustration can result in disaffection. Instead of being directed against deficiencies of representation in one's own party, this disaffection is directed against the other communal parties and their members. On the surface, the Alliance and the National Front seem to transcend communal lines with coalition politics. Underneath, however, it is clear that these have in large part been devised to take politicking off the streets and into the closed meeting rooms of political leaders.

Political control in Malaysia has some decidedly totalitarian tinges. There is a tendency towards the one official political party. The Malaysian government is a party government with policies congruent with the policies of the United Malays National Organization (UMNO). Serious consideration has already been given to the formation of a one-party state. Although rejected so far, this leaning indicates the propensity of at least some top government leaders to regard democracy not as a necessary evil, but as evil and unnecessary. There is a further tendency towards increasing government involvement in the management of the

economy. Through direct investment and regulation, more and more activities normally undertaken by the private sector in capitalist economies are being undertaken in Malaysia by the government. There is an associated tendency towards the extension of police powers beyond the suppression of conventional crime. Certain forms of political expression are banned, and alleged violations of some newly written laws can be dealt with by circumventing the legal requirements for trials and fair treatment. Although none of these tendencies is particularly shocking in a young democracy, the direction of each again bears watching. If the totalitarian mode is on the ascendant, so that the freedoms of the individual are being further restricted, the opportunities for garnering a consensus will have to give way to exacted compliance.

Another noteworthy feature of Malaysian politics is the intolerance for opposition parties. Under the guise of consensus and cooperation, such political structures as first the Alliance and later the National Front have been devised to absorb opposing political groups into a framework dominated by UMNO, the party in power. In these structures, the leaders of what previously were opposition parties have been persuaded of the wisdom of not aspiring to radical changes in policy, a stance which they have accepted in exchange for being given positions of nominal power and importance. They are quickly socialized into the style and values of the ruling party. As they are co-opted, their enthusiasm for radical change diminishes. Their only alternative is to accept the legitimacy of the values of the dominant party, UMNO. As their negotiations become confined to closed meetings, their attempts and abilities to represent party members become increasingly ineffectual. To stay in favour, they must get their followers to adopt similar policy stances, and the consensus that does exist among member parties of these political conglomerates is largely a result of the successful inculcation of ideas by the ruling group. Because these ideas are at variance with the ideas of some of the people who are being ruled, future political tensions will result in the emergence of additional opposition groups, more radical than their predecessors, to challenge the legitimacy of the ruling coalition. These political newcomers will find support among those who feel that their interests have been sold out.

Combined, these tendencies result in the tacit suppression of

dissent—tacit, insofar as it is in addition to the constitutional suppression of dissent as embodied in the Internal Security Act, the Universities Act, the definition of sensitive issues, the ban on the communist party, and similar actions which set the tone for, and hence reinforce, patterns of inhibiting expression. The feeling seems to be that the debate contained among the various leadership groups is enough debate for the present. The notion is disseminated that matters are terribly complex, so complex that only the politicians pressing the levers of power really understand all the implications and imperatives of a policy or modification of policy. It is held that laymen, even back-benchers in the federal parliament, do not possess enough information or knowledge to fully grasp these implications and imperatives or to see them in the context of overall policy. At the same time, a critical and investigative press has been equated with dissent, not with civic responsibility that can defuse a situation before it becomes unmanageable. Regrettably, the press itself has made the equation. This situation gives political leaders the expectation that they will not be criticized, and the result is that the press restrains itself for fear of offending, without even finding out what is offensive. This reticence means that government leaders, instead of having to explain themselves on delicate issues, can simply say that they are aware of these issues and will act at their own pace when the time is appropriate, not at a pace dictated by public opinion. The people are told that they can register their opinions at election times in the truly democratic way. This means that many people, who have had to sublimate their resentment and hostility against institutions and ethnic groups, are poised and primed not necessarily for revolt, but certainly for demonstrative expressions of their feelings should the opportunity arise. And while they wait, they publicly say one thing, but privately believe another. This is the most unsavoury by-product of curtailing free expression, because it demonstrates that leaders and representatives are losing touch with the people they lead and represent.

Finally, there are abuses of political power that can only be labelled as corruption. Yet, little is heard about such abuses. The fact that a chief minister awards state contracts to relatives is not met with outrage; others, it is held, have done the same in the past. The fact that a federal member of parliament gets $10,000 from a businessman for pushing the approval of an ap-

plication through the bureaucracy is seen not as a corrupt act,
but as a legitimate payment for services rendered. Condoning
corruption has as corrosive an effect as corruption itself, for it is
the tolerance of corruption which makes that first corrupt act
possible. Moreover, official action against corruption, like
power itself, tends to be handled internally. This means that
justice in Malaysia is political, at least insofar as it affects politi-
cians. Corruption, in its inimitable fashion, nevertheless provides
for order of a sort: it establishes a network of favours offered
and owed among politicians, civil servants, members of the po-
lice and armed forces, and those in business; by dangling it as a
kind of damocletian sword, it ensures cooperation and compli-
ance in a number of official situations.

The net effect of these unstable elements is to compromise
the representation of voters and constituencies—and is not
representation one cornerstone of the democratic process? In
both state and federal elections, voters express their preferences
for integral units of a rigid power bloc, not for representatives
and stern defenders of their interests. Exceptions to this pattern
occur in instances where an elected representative is unusually
strong, but this simply means that his added bargaining strength
in the party reduces that of his counterparts. A final important
factor is that it is also well known that it is not so much elected
politicians, or even ministers, who affect the bureaucracy, as it is
bureaucrats who influence the politicians, at least much of the
time. Because the nature of the bureaucracy is not to respond to
the interests of a particular locale, but to mitigate these interests
in deference to overall development planning and resource
limitations, voters of every description end up with the feeling
they are not being represented as well as they might be.

The congruence with existing realities

In spite of these necessary qualifications, the true character of
Malaysian politics should not be misconstrued. The political
form adopted, at least in theory, is parliamentary democracy.
Although the foregoing discussion points to some decidedly non-
democratic features of Malaysian political activity, politics at
present are indeed reasonably stable and orderly. This in itself
indicates the degree to which political structures, styles, and
methods are congruent with societal and cultural realities. This
congruence, and its profound relevance to the political process,

is often forgotten by those critics who point to these same unstable elements and assert that Malaysian politics are a sham and will continue to be a sham until each unstable element is remedied in fully democratic fashion. These critics, particularly those educated abroad, compare the politics in Malaysia not to politics in other developing countries which have circumstances quite similar to Malaysia's, but to politics in the United States and the United Kingdom. This comparison leads to ridiculous, contradictory, and unrealistic expectations of what the government should do and how it should do it. But the comparison is invidious, for socio-cultural realities in Malaysia are entirely different from those in the established western democracies.

The free adversary process, in elections or parliamentary proceedings, works only if the rules of the game are adhered to. In the working democracies, established procedures for seeking power are seen as outweighing the desire to win, and the law is seen as being above the man. Neither belief is widely held in Malaysia, at least not yet. And during a young country's early constitutional experiments, some divisions are so marked, and some disagreements are so heated, that to give free rein to the adversary process would be to invite the disruption of society at large. Moreover, in certain political arenas, such as in local government, the ethnic composition of the electorate could result in council-stacking that would be far more politically divisive than unifying. A similar rationale applies to the appointive nature of elective politics: by having the candidates selected by leaders in central positions, the potential for unifying each of the various parties is greater. If leaders of these parties were to be fully responsive to appeals from the grass roots, party unity would be tenuous, and the influence of the more responsive communal parties would decline vis-à-vis the unified communal parties.

The essence of democracy — permitting major decisions about alternative policies and programmes to be made by majority vote after long discussion — runs counter to the paternalistic orientation of the extended family, to the heirarchical organization of many traditional institutions, and to the rigidly structured situations in schools and other social institutions. The prevailing mode is for orders to be transmitted from above. The expectation is that these will be accepted in disciplined fashion by all those below. In this sense, Malaysian politics must be

authoritarian, at least for the time being, with power residing in the hands of the few. One justification for this authoritarian mode is that the electorates are not yet sufficiently responsible. Another is that many politicians are not yet sufficiently capable—only the well-educated elites have the abilities to determine the many national, state, and local policies and programmes. The real reasons for the ascendancy of the authoritarian mode are simply that Malaysians are accustomed to it and have not yet had sufficient experience in democratic situations, whether in family, school, or work.

The communal alignment of political structures inheres in the structure of society itself. To rush headlong into a decommunalization of politics, the argument runs, would be to ignore basic differences in interests, styles, and degrees of responsiveness to leadership. The first 30 years of indigenous politics have revealed and reinforced the many barriers to establishing pan-communal political institutions. Multi-ethnic parties—from Dato Onn's attempt in the early 1950s to Tan Chee Khoon's in the 1970s—have had great difficulty mustering support, even with such noble platforms as honest government and a concentration of development efforts on the poor and underprivileged in society. Multi-ethnic party development will occur only as a reflection of more fundamental changes in society itself. It may nevertheless turn out that the structure of the National Front will transcend its own basic purpose of incorporating, and hence controlling, dissidence. This is because communal political structures run counter to the new political affinities that are now beginning to emerge: farmer-worker as opposed to manager-owner-civil servant. As these affinities strengthen, communal parties will have begun to outlive their representativeness. Unless new political institutions going further than the National Front are formed to replace the original communal parties, the only way to hold the existing parties together will be by appealing to ethnic nationalism. Such appeals would raise the spectre of maintaining or achieving power through violence. Politics will continue to be communal so long as economic issues and imbalances are perceived in communal terms. But to the extent that society and the economy are decommunalized in the coming decades, to that extent also will the justification for communal politics be reduced.

Tinges of totalitarianism have crept into the Malaysian politi-

cal repertoire because of concern over the potential for racial clashes. The assumption is that if restraints on expression were removed, the debate over certain issues would become increasingly heated and eventually incite violence. Consequently, certain issues have been gazetted as sensitive and debarred from public conversation. An example of this is the treatment of the special position of the Malays. If the underlying assumptions of programmes designed to improve the socio-economic lot of Malays became the subject of public discussion, the Malays would feel threatened, the non-Malays would be angered as the Malay responses to these threats, and the potential for ethnic clashes would rise commensurately. There exists one obvious danger in this: that the Malays, more than redressing past grievances and imbalances, might decide to exploit their power base to make greater incursions into the rights of the other ethnic groups than are justified or presently envisaged.

The incorporation of political opposition has worked well for three main reasons. First, it is assumed that a party can secure few benefits for its supporters when it is in the opposition. The institutions of government, essentially under the control of the ruling party, would punish the supporters of opposition parties by passing over their strongholds in the distribution of developmental largesse. Moreover, the existing political order is so overwhelmingly in favour of the ruling party that little hope exists for legitimately changing the balance of power. It is felt that by first mounting an opposition movement and later joining the ruling coalition, greater concessions can be obtained for constituents in the behind-closed-doors bargaining that has been the dominant feature of Malaysian politics. Second, Malaysians generally want peace, and the incorporation of opposition is indeed peaceful. By taking discussion off the streets and into the corridors of politics, the struggle for power becomes private, not public, and tensions and conflicts which could quickly develop into outbreaks of communal violence are effectively defused. Third, as mentioned before, there is considerable deference to leadership: members and lower officials of a party obediently support the decisions of their leaders, even if they personally feel that these decisions are not in their immediate interests. Leaders do not therefore have to be overly sensitive to the pressures of public opinion.

The main reason for suppressing dissent, constitutionally and

tacitly, is that Malaysia cannot yet afford the luxury of having much of the populace dissenting. In this sense, the dissent that is allowed to flourish is an index of political health, not of disease. Malaysia can afford some dissent—the occasional inquiry by one of the national newspapers, the occasional probe by the leader of the opposition in parliament, the occasional forum that tolerates views critical of government. But Malaysia cannot yet afford investigative journalism splashed over the front pages every day, persistent attacks on the way the country is being run, or a continuing debate over such matters as citizenship, the sultanate, language, and the special position of the Malays. The suspicion is that if more dissent were permitted, this would open the floodgates: there will always be disagreement and discontent, and the more that is expressed, the more will be waiting to flood in. Dissent seems also to ring a little hollow, coming as it usually does from the least, not the most, oppressed in society. Furthermore, in the small number of countries where dissent is not suppressed, institutions are so well established and the momentum of society is so great that disruptions in one sector or locale do not bring all society to a halt. The consequences of disruption are much greater for young countries which are still grappling by trial-and-error with the process of establishing new institutions. Part of the problem, of course, is that there are no mechanisms into which dissent can be effectively channeled, expressed, evaluated, and placed in a context of possible alternatives. The mere act of voting at quinquennial elections is thus seen as offering citizens enough of a voice in the way the country is managed.

Corruption is condoned in Malaysia because there is no precise definition of what is corrupt. It is thus difficult to conclude whether a particular conflict of interest is perfectly acceptable, strictly unethical, or blatantly illegal. The notion prevails that as long as something does not contravene the letter of the law, it is permissible. Reinforcing this is the notion of privilege: people working for the supposed betterment of the country and having struggled to get into positions of power deserve some reward beyond a meagre salary for those efforts. Moreover, so weak is the ethic of public service, the failure to take advantage of one's position would be seen by many as downright foolish. The essence resides in the ambivalence. Is it corrupt for the wife of a federal minister to apply for a substantial bank loan to start up a

business? Is it corrupt for a state minister to accept a below-cost estimate to have his new house built by a company that is tendering for construction contracts with the state government? Is it corrupt for a member of parliament to intervene in the bureaucracy on behalf of a businessman who contributed to his campaign for office? That a line has not been drawn to separate the corrupt from the ethical has perhaps been a function of the need to create a class of wealthy Malays—in part to challenge the Chinese economically, but also to satisfy the *rakyat* with visible evidence that incursions are being made into the Chinese share of the economy. Consequently, to accuse a politician of corruption is equated not with civic responsibility, but with dissent

Weak representation of constituency interests has been acceptable because communal and national interests have thus far taken precedence. The clout of national leaders of the various communal groups more than compensates, it is felt, for the weak voices emerging from many constituencies. Moreover, the conditions which compromise local representation are the conditions which justify many destabilizing practices. The electoral process ensures that representatives are more responsive to central party leadership than to their constituents, but at this relatively early stage in party development, bloc support is required to maintain maximum leverage in negotiations and conflicts with other parties. Greater discussion of issues and policies would incorporate a broader range of viewpoints, but central decision-making is seen as being not only efficient, but instrumental to the continuity and compatibility of overall government policy. Oppositions provide a voice for minority interests, but are felt to be a troublesome nuisance; greater dissent would provide another voice, but is seen as being too volatile a threat to authority.

Another justification for the weak representation of constituency interests manifests the suspicion that if people at grassroots level were really allowed to express themselves, they would make so many demands on the country's government and resources that the political system would not be able to stand up against the onslaught. People know that they do not have much of a voice today, and they seem to accept this, along with the idea that local interests must be subordinated to national interests. Malaysians do not have a long history of being represented; hence, they do not expect it. They have not opted for this situa-

tion; past circumstances have imposed it. It is nevertheless regrettable that in district and local councils—in which constituents might voice requests that would be limited by restricted jurisdiction and power—the political system does not, except in Sabah and Sarawak, provide for the election of representatives.

Malaysian politics have been relatively stable because what seem on the surface to be elements of instability are, or at least until recently have been, congruent with existing cultural realities. But, as has been indicated in the two preceding chapters, the socio-cultural basis of Malaysian society is now being modified and will in future be modified even more. This modification is a direct result of two powerful modernizing influences: education and urbanization. When a populace emerges that is better educated and more urbanized, the seemingly unstable elements, hitherto congruent with cultural realities, will become manifestly unstable. Education and urbanization will engender growing demands for the extension of the free adversary process, for the greater participation in decision-making first of politicians and later of constituents, for party alignments based not on communal interests but on socio-economic interests, for assurances of basic individual freedoms, for the flourishing of responsible opposition and dissent, and for campaigns against the corrupt. Whether these demands are in fact met will depend on the degree to which those in power decide, or are compelled, to share their power with the people they govern.

A new generation of politicians is emerging in Malaysia, as is a new generation of voters. Fresh requirements for change will place increasing demands on an avowedly democratic government. Because any government is essentially conservative in striving to maintain the status quo and essentially incompetent in administering liberal programmes which alter the status quo by extending socio-economic benefits to an entire populace, the capacity of the Malaysian government to meet these greater requirements will inevitably stagnate. Because this shortfall on delivery to meet rising expectations must be offset by something—by disorder, imposed order, or mounting instability—one major task of government will be to anticipate the transitions ahead and to manage these as effectively as possible. The degree to which it succeeds will be reflected by the relative degree to which democratic or authoritarian methods prevail. Whatever happens, there is certain to be a far greater amount of political

turmoil in the future than has been experienced in the past.

Power responses to changing societal realities

Malaysian society will be different in the year 2001; Malaysian politics must also respond and change. Because of the changing cultural realities, two political responses can be identified as having an equal probability of evolving. One is a fragmentation and realignment of the existing power structure, maintained by democratic methods. The other is a consolidation of the existing power structure, maintained by authoritarian methods. Although both these responses would be essentially orderly, the former would be stable, the latter unstable. The ultimate political form for Malaysia, if determined domestically, is probably the democratic. The notions of the autonomous individual and of the validating system of responsible electorates are simply too attractive to be readily abandoned. But the manner in which democratic substance ultimately evolves must be based on far more than simplistic ideals.

To further extend the amount of democratic substance in society requires political maturity, considerable discipline, and a prevailing virtue of civic-mindedness. These characteristics usually arise after a long tradition of self-government at the local level and the establishment of the practice of putting public interests before partisan interests on serious issues. A great respect for legal forms is also required, so much so that any bending of law to circumstance is regarded almost as a sin. The greater this respect, the less the requirement for authority. If these attributes are missing from the characteristics of political leaders and the citizenry generally, full democracy is not workable. Are Malaysia's political leaders sufficiently responsible? Some are, and others are not. The essential question is whether voters and special interest groups have the wisdom to separate the two and to insist on the removal of the irresponsible and corrupt. Are Malaysians civic-minded and politically disciplined? Again, some are, and others are not.

Many Malaysians espouse democratic ideals. At the same time, they feel that Malaysia is not yet ready for full democratic process. They would opt for limited democracy, even a suspension of democracy, to enable improvements in technical efficiency and the continuation of public order. Others would prefer immediate democracy in every sense of the dissenting word, with

all the economic, political, and social disruptions to society that this would necessarily entail. It seems that if order is to be maintained, the movement towards full democratic process must be gradual, but steady. The sudden installation of democratic process, without having the necessary social preconditions, could result in anarchy followed by the tyranny of a totalitarian or authoritarian regime — a succession experienced by many of the world's nations. Thus far, Malaysia has been making the transition in relatively orderly fashion — a little too slowly for some who feel that the country is still essentially feudal and a little too rapidly for others who feel the country should be essentially authoritarian — but progress towards democratic form is being accompanied by progress towards democratic substance.

It must be made clear that, whereas full democracy is impossible today and must be mixed with authoritarian and totalitarian methods, full democracy (or fuller democracy) is the goal in the future. Any retreats from this goal should be so heralded. If the government continues to portray itself as fully democratic when in fact it is not — something it may have to do simply to avoid any erosion of democratic substance — this will continue to raise the hackles of students, liberals, and armchair political pundits. Such critics measure the substance of government against the ideal form, instead of regarding with respect the degree of democratic substance that presently exists and holds the promise of future augmentation. Malaysia, even with all the problems imposed by its plural society, is probably the most democratic Southeast Asian country. But if, in response to liberal critics, the progress towards more democratic substance is rapidly and unnaturally accelerated — for example, by taking large chunks of authority from those who currently possess it, before having developed sufficient substance to match the form — there will be dangers of an authoritarian backlash. Those in power, seeing the base of their authority eroded, would be tempted to move towards the adoption of additional authoritarian methods in order to quash the challenge to their power. This response is the greatest threat to political stability in Malaysia, and the determination to counter this authoritarian temptation must be strong. The likelihood, given the nature and severity of various threats to the nation, is that this temptation will nevertheless be indulged. The question is, How heavily? Malaysia's propensity for totalitarian or authoritarian deflections will also be affected

by the degree to which Malaysian leaders confuse order with stability and, in so doing, seek a form of order that lacks the inherent stability to accomplish the work of society. They must instead maintain their resolve to manage the disorder of the democratic experiment — the alternatives simply are much too unsavoury.

Malaysia already has authoritarian methods, even totalitarian methods, in its political repertoire. The broader application of these methods, in the face of disorder and under the guise of restoring order, would seem natural to many people. To eliminate political opposition, an official party would be formed to embrace existing parties. It would be led by a small coterie of leaders who would select themselves and determine policy. To eliminate dissent, the autonomy of the individual would be subordinated to the will of the state, and a single ideology guiding all phases of public conduct and all expressions of belief would be promulgated to the exclusion of alternative doctrines. To promote this ideology, the existing monopoly of public communication would be strengthened and exploited. To prevent the development of independent opinion, group life would lose its autonomy and instead be initiated and controlled from above. To bring economic pursuits under the political umbrella, there would be increasing control over the management of all business. To ensure public compliance, the police would go beyond their conventional role of suppressing crime and extend their activities to the surveillance of the public and the ferreting out of real or imagined political opponents, unrestrained by legal requirements for trials and fair treatment. Each of these methods is already in limited use and would have only to be broadened under the guise of maintaining order, as was the case during the Emergency imposed after the riots of 13 May 1969. This period is regarded by many Malaysians of all ethnic groups as the pinnacle of effective government administration in Malaysia. If there were another move in this direction, the populace, already conditioned to the limited use of such methods, doubtless would acquiesce in the perceived interests of order. At present, a full totalitarian state is unimaginable, but the increased use of totalitarian methods is not.

Malaysian politics could also move towards an over-concentration of Malay power to the exclusion of the interests of other ethnic groups. Today, power is already concentrated in the

hands of Malays, who are also accorded certain special privileges. Significantly, this concentration is seen as justified in the context of the prevailing myths of the need for Malays to redress their historical disadvantage and of Malaysia's status as an essentially Malay country. Although some see this process as an over-concentration of political power, there is in fact a fair amount of compromise among the National Front's constituent parties. True over-concentration would involve absolute Malay power with no protection of the rights of other ethnic groups. Such a situation is not unimaginable and is doubtless feared by many. But it would only be possible under a more authoritarian regime at tremendous sacrifice to existing social and economic stability. Further, it would almost certainly result in a situation which would be persistently threatened by a revolt of the non-Malays.

The suspension of the legitimizing process of elections is easier to envisage. Malaysian politicians have already made one quiet ideological excursion (after the 1974 elections) to explore the merits of a one-party system—a system which is necessarily the basic feature of all authoritarian states. The rationale is expediency: simply, opposition voices are seen as an irresponsible impediment to efficient government and as a luxury of democracy. Given the pattern of keeping Malaysian politics off the street, a super-party would be created along the lines of the National Front, and all opposition would be eliminated. Government could then proceed unimpeded; dissidence could then be handled within the context of party discipline. Moreover, the move would not be that great a departure from the existing structure of political organization. After all, decisions today are made behind closed doors in Kuala Lumpur, seats are bargained for in the context of an oblivious electorate, and elections are generally a mere ratification of decisions made by political leaders. As opposition voices gain greater strength in future by appealing to a better educated electorate, the tendency to withdraw to a one-party system, under the guise of being more able to act in the interests of the nation as a whole, will undoubtedly increase. Unanimity would be seen as superior to compromise, even if the people were to have no voice in that unanimity.

Another response to what doubtless will be seen as declining control over society at large—over student demonstrations, over

concessions by the Malays to other ethnic groups, over urban guerilla activities, over power struggles among Malay leaders that deflect attention from the business of society — would be to increase the role of the military in government. This response could be in the form of a military takeover, whereby the military would usurp the power of parliament and the cabinet and install themselves to maintain order and run things in their own fashion. Or the response could be in the form of martial law, whereby a prime minister would fan out the armed forces to ensure his position in power. Neither scenario is improbable. An ambitious home minister, together with a few popular politicos out of power, conspires with the chiefs of staff to take over the reins of government in order to protect the interests of Malays, strengthen the security situation, and act as caretaker until stronger leadership can supplant the wishy-washy leadership just usurped. The obstacle that makes this development unlikely in Malaysia is the requirement of Malaysia's political leadership to have the imprimatur of the King and the Council of Rulers. Still, Thailand manages to get around a similar provision from time to time, so the imprimatur is not an absolute safeguard. Martial law, on the other hand, would be imposed in a situation of increasing terrorism and would give law-and-order functions to the army. The military could then mete out justice swiftly and effectively to restore order in the country. Instead of wiping out terrorism, this would probably replace terrorism with terror of another variety, and for every citizen wrongly accused, there would be another would-be terrorist or dissenter.

Given the absence of legitimization in any of these dreary scenarios, the political system would necessarily be unstable and ultimately disorderly — the more so because of the emergence of a strong undercurrent of people who will be more intelligent, more knowledgable, more educated, and more critical than their present-day counterparts.

Is Malaysia a falling domino?

This array of threats to democracy in Malaysia may seem quite formidable. These stem, however, from the internal problems with which every young democracy must contend. Seriously compromising Malaysia's ability to deal effectively with these problems will be additional threats from outside the political system, threats which seem likely to persist and even to escalate

in the years ahead. These challenges will make the practice of democracy even more difficult—and even more necessary. As these greater threats become apparent, the temptation will be to impose greater domestic order by limiting individual freedoms and the democratic process. Depending on the nature and severity of the threats, such limitations may in fact be justified. But if these patterns of limitation become established without a reversion, when conditions permit, to the freedoms that presently are enjoyed or to the still greater freedoms that in the future should be possible, then the underlying instability of this imposed order will make Malaysia extremely vulnerable.

There are few compelling reasons to assume that Malaysia's present constitution, political system, or borders will be the same in the year 2001. For example, the foregoing discussion would have little relevance if there were a global nuclear war. But pressing more on most people's minds than the possibility of a nuclear holocaust is the question of whether Malaysia will be a falling domino. Strictly, the domino theory, as originally conceived, is predicated on Chinese expansionism and is no longer relevant to power realities in Southeast Asia. Today, the notion has been extended to subsume countries that might go communist, whatever the source of their inspiration and support. For a variety of reasons—inter alia the relative absence of an exploitable domestic condition, the high level of per capita GNP, the prosperity and opportunities that presently exist, and the country's being a part of the Muslim world—Malaysia probably will not fall. But probability is not the same as certainty, and there is little consolation in having a 10 percent chance of falling, instead of a 50 percent chance, if the country one day falls.

If tanks begin to roll down to the northern frontier, it will be diplomacy that stops them, not military defence. This means that foreign policy initiatives, such as those related to neutralization and to strengthening the Association of Southeast Asian Nations (ASEAN), will be instrumental in safeguarding the integrity of the nation's borders. But diplomacy can be effective only if the nation is healthy and free of domestic conditions that can be exploited by outside interests. If there were whispers that Sarawak and Sabah would be better off outside Malaysia or that non-Malays would be none the worse under a government dominated not by Malays but by foreign interests, sympathetic chords would be struck in many ears. Among certain sectors of the pop-

ulace, commitment to the nation is not high, but this lack of patriotism is not necessarily of their own creation.

Malaysia's capacity to survive will be directly related to the strength of national identity and integrity that is engendered among all Malaysians in the coming years. Because the support of non-Malays will greatly influence Malaysia's ability to respond to external challenges, conditions must somehow be changed in order that non-Malays can have some real justification for feeling a sense of commitment to the Malaysian nation. Much is to be done in this regard, for there are many Malaysians who have been born in Malaysia, have spent all their lives in the country, have perhaps risked their lives for the security of the nation, but who do not or cannot feel fully Malaysian. Instead, they feel that they are second-class citizens in their own country. The same cannot be said of the Malays. Malay nationalism has from the beginning been more or less equated with Malaysian nationalism. Malays have thus had little to deter them from feeling a sense of commitment to their country. It has, after all, been *their* country, particularly since 1969. But for a Malaysian sense of identity and integrity to be created, Malay chauvinism must recede, as must Kadazan chauvinism, Iban chauvinism, Chinese chauvinism, and all the other ethnic shibboleths around which Malaysians rally. Insofar as each of these attitudes looks backward into history and tradition and inward from national and ethnic boundaries, Malaysian national identity must instead look forward and outward. In some ways, Malaysia is fortunate in being unbridled by history and a long sense of tradition. This circumstance reduces the degree to which national identity must compete with ethnic nationalisms. The two clusters of feelings can coexist, and the one can gradually overtake the other. Malaysia's identity resides, then, in an orientation towards the future. As a greater sense of identity is formed around the prospects for this Malaysia of the future, so also will it be possible for greater national integrity to be forged.

The continuing inquiry

• What does democratic government entail in Malaysia? What should it entail? What could it realistically entail in another 25 years?

• How much democratic substance exists in Malaysia today? Will this be increasing or decreasing in response to the social and

economic pressures of the future?

• What indicators can be watched over time to measure whether democratic or authoritarian substance is on the increase? For example: column inches of articles critical of the government in national newspapers, number of opposition members in state assemblies and parliament, percentage of successful nominations for state and federal elections, congruence of an MP's residence with his constituency.

• What are the most important political issues in Malaysia today? Presumably, the sultanate, special rights, and language are at the top of the list because these have been declared sensitive. But what are the most sensitive issues not so gazetted?

• What are the future political implications of present-day policies surrounded with some controversy, like the 30 percent target or the Universities Act? Present-day control is surely the objective, but what do these policies mean for future stability?

• How sensitive are leaders in Malaysia to public opinion? Does it exist? Does its amorphous character mean that policy can depart further and further from the wishes of the people? Are there not, for example, some real dangers of political leaders finding themselves at odds with religious leaders, whether over behaviour or policies?

• Why do multi-racial parties have so little success in Malaysia? Can they work in future? What are the preconditions for decommunalizing politics?

• What developments are likely in the internal politics of the United Malays National Organization (UMNO)? Because Malaysia's government is a party government, it is in many ways more important to analyze and interpret trends in UMNO than in the National Front.

• What changes can be made in present-day political activity to extend individual freedoms, improve the electoral process, and open the public debate? What is a realistic timetable for instituting each of these changes?

• What confers the right to dissent? Dissent may be linked with a right to speak and a right to be heard, but are not these rights associated, too, with the past agreement and continuing obligation to contribute to the work of society and to shepherd its direction, wherever it happens to be going?

• Can improvements in technology be applied to enable a pro-

cess of continuous consultation—up, down, and sideways—so that more people are involved in decision-making and that the need for dissent is reduced? Do communication and consultation reduce the need for dissent or simply increase expectations by giving people the power of a voice?

• What can be done to increase the respect for law in Malaysia? It is difficult to engender this respect when every schoolboy knows that five (now, 10) dollars discreetly slipped to a traffic policeman will result not in a charge, but in a verbal warning.

• Is it possible for Malaysian nationalism to supersede the various ethnic nationalisms when Malays have special rights or when certain rights and opportunities are based on birth, not on merit?

• What circumstances contribute to national identity and integrity? What circumstances detract from national identity and integrity? What things make Malaysians feel wanted as members of the Malaysian polity? What things detract from this feeling? We know that the general design of things makes Malays feel a part of it, but what are the preconditions for having non-Malays, including the *bumiputras* of Sabah and Sarawak, feel a part of the Malaysian nation?

• It has been suggested that Malaysia will have a nuclear capability by the mid-1980s. Would this enhance her ability to defend herself or increase the likelihood of external aggression across her borders?

Managing
Economic Chaos

Malaysians spend much of their adult lives performing, or thinking about performing, utilitarian tasks related to their economic and material well-being. Because economic concerns and goals seem to be the first priority for most Malaysians, does this not render the theoretical and idealistic niceties of values, social cohesion, and politics almost superfluous? Are not Malaysians half-heartedly espousing idealistic notions about the ways they should get along with their fellows and the ways power should be restrained to give greater freedom and better governance to all? Is there not a residual feeling that, once people acquire the money and material goods they desire, all else will fall into place, for only then will they have the time to think about social and political affairs and the inclination to act on them? Is it not further suggested that, in the interim, not very much is to be gained from efforts to improve social and political institutions? Such questions can be posed because most Malaysians are taking social order and political stability for granted, even as they watch the cracks in both continue to widen. There is thus a requirement, in this fervent pursuit of economic and material well-being, to keep assiduously in mind the compatibility of social and political realities with the economic goals of individuals and the nation.

Malaysia's economic goals are considerable. For example, it is assumed that:

- The economy will grow in real terms at the annual rate of five percent, and the industrial sector will grow at the

annual rate of eight percent. This means that the Gross National Product in the year 2001 is expected to be four times, and the output of the manufacturing sector eight times, the 1975 level. For such advances to occur, the world economy must continue to grow without interruption, rampant inflation, or violent upswings and downswings. These requirements imply far greater global economic cooperation than has hitherto existed.

- Jobs will be found for the flood of new entrants into the labour force. This means that on average more than 200,000 jobs must be created annually, bringing to five million the total of jobs that must be created during the last quarter of this century. Because employment has already nearly peaked in the agricultural sector, most of these jobs will have to be in urban-based production and service activities.

- The objectives of the New Economic Policy to eradicate poverty, eliminate ethnic imbalances, and place 30 percent of the country's corporate wealth in Malay hands will be achieved. This means that intervention by government in the economy will not only continue, but grow, as will the pressures on government to provide welfare services.

- Production activities will shift from commodity exploitation to secondary manufacturing; this manufacturing will itself shift from import substitution to export promotion; and many of these activities will be related to downstream production of the primary export commodities: tin, rubber, palm oil, timber, petroleum, and natural gas. This means that sufficient capital must be raised, sufficient technology must be transferred, and sufficient expertise must be developed to initiate, facilitate, and successfully manage all these new activities.

- The regional political situation will affect neither the investment climate in Malaysia nor the performance of the national economy. This means that domestic insurgency must be successfully curbed, that Thailand (or at least southern Thailand) must continue to serve as a buffer between Malaysia and potentially hostile forces to the North, and that the thus far not-very-détentish détente between the Americans and the Soviets must be broadened to preclude a return to conditions of a global cold war.

- Each of these desirable conditions will not suddenly terminate in the year 2001, but continue thereafter.

To turn these assumptions into achievements, each of which will be reliant upon the concurrent attainment of all the others, will require skill in management, hard work, and no small amount of luck.

The pursuit of these goals will place massive demands on Malaysians and on their economy. Growth alone is going to introduce a sufficient quantum of uncontrollable forces to ensure that economic life in Malaysia will be increasingly chaotic. Malaysia is in the process of shifting from a primarily agricultural to a primarily industrial economy—a shift to be completed before the end of this century. In some ways, the country has taken the tiger of industrial growth by the tail and is committed to a chaotic developmental ride if it manages to hold on, or to a chaotic economic decline if it is unable or unwilling to maintain its grasp. Managing the responses to growth and related requirements, along with managing the added chaos these promise to engender, will demand far more sophistication than was available when the country's economy was based on wet-rice agriculture and two or three export commodities, or even than that which is presently available. Malaysia's economy has a great deal working in its favour—inter alia being a net exporter of oil, controlling the world production of three basic commodities (tin, rubber, and palm oil), and having a small population, stable currency, and insignificant foreign borrowings. These conditions, combined, have stimulated massive expectations. The question nevertheless is raised as to whether the nation possesses the determination to achieve its ambitious economic goals by taking fullest advantage of the opportunities before it and by responding to rapidly changing conditions with a minimum of disruption.

The thrust of this commentary on the future of the Malaysian economy is not to discuss the fiscal, monetary, and planning tools that must be brought into play to enable the realization of major economic goals, or even to delve into working assumptions and basic policies. Instead, the intention is to probe the dynamics of some fundamental conditions that, depending on the state of their health, will either facilitate or impede the efficacy of all the other economic measures and efforts. The assumption is that government planners devote excessive atten-

tion to second-order considerations—to reducing unemployment levels, keeping the money supply in line with production, preventing drops in foreign reserves, improving the balance of payments, encouraging higher levels of savings, and the like. These objectives typically are tackled with short-term instruments which do little to deal with more fundamental problems of an enduring nature, thus diverting attention from implicit but frequently forgotten goals. Even the five-year national development plans, although setting out noble programmes and objectives, ignore certain critical, but fundamental, conditions in the economy.

These various instruments and plans are demonstrably less effective if certain first-order considerations are not in place—considerations as to the optimization of production, the shift from dependence to interdependence and independence, the relationships with foreign economic interests, the areas of consensus among domestic economic interests, the reduction of urban-rural disparities, the degree to which popular expectations are met and mitigated without their racing far ahead of the economy's capacity to deliver, and the installation of that elusive element, confidence, amid difficult if not chaotic circumstances. These first-order considerations may seem on the surface to be of little direct concern to individual Malaysians. These are nevertheless essential to the health of the economy in the long term. As such, these are of supreme indirect importance to every Malaysian. Ironically, first-order considerations are precisely those which the individual can influence least, and government has to be entrusted with influencing these to the individual's advantage. Even so, individuals can persistently ask whether government actions in these regards are in the best interests of the national economy.

It is to be hoped that resource exploitation, manpower development, and the short-term management of the economy will in future be approached with as much intelligence and competence as are available to those persons having their hands on the levers of the national economy. At the very least, there must be enough economic stability to enable the predictability so critical to medium- and long-term planning. At the same time, there is an equal need for maximum understanding and control of the multitude of factors significantly impacting on the economy. It therefore is also to be hoped that these same

persons will think more than occasionally about things of a fundamental and sometimes obvious nature, perhaps even to the extent of speculating about the effect each major policy decision might have upon the first-order considerations already listed. Economic planners in most developing countries have to devote their full attention to second-order considerations just to keep their economies functioning and their heads above water, hoping that by so doing the first-order considerations will resolve themselves. Malaysia is not in this category; it no longer has to gamble that things will not fly apart because of basically unsound fundamental conditions. The country is far enough along the developmental path to pause and do something to *ensure* that fundamental conditions are sound, thus enabling the economy to respond swiftly and effectively to the growing demands that will be made upon it. Moreover, the gains from attending to these fundamental conditions can be great in relation to the efforts expended.

Three general suggestions may be made before proceeding to a discussion of the first-order considerations themselves. First, in contemplating alternative courses of action, a more complete range of alternatives should be developed. Too often, the range of alternatives is artificially limited, lending a subjective bias to the course or courses ultimately selected. Second, in evaluating alternative courses of action, the full range of costs and benefits should be considered. Too often, the greatest emphasis is given to the costs of an existing condition and the benefits of the most immediately attractive alternative. The benefits of the existing condition and the costs of the attractive alternative often are given too little consideration, as are other, less obvious alternatives. This neglect can result in the irrational defense of a course of action, not because that action lacks intrinsic merit, but simply because it has not been conceived in a sufficiently broad context. Third, the courses of action selected should be pursued confidently and competently. Too often, planners fall in love with an economic objective's intuited attractions and justifications, imagining that the objective will achieve itself simply by being pursued, simply because it seems to be right. These three guiding principles are all seemingly obvious, but they seldom are applied in practice.

Optimizing production conditions

The public and private sectors will, as a matter of course, do what they can to increase industrial and agricultural production and to meet the domestic requirements for capital, labour, management, raw materials, technology, and other inputs. In response to the requirements for capital, domestic savings will be encouraged so that foreign borrowings may be kept to a minimum, the rural credit system will be broadened to get money to the farmers who need it most, foreign investors will be courted with more persuasion, and the financial services sector will become more imaginative in its development of a capital market oriented to investment, not speculation. In response to the requirements for labour, Malaysians will be trained at all levels of skills to enable them to take up production positions and move from one activity, sector, or locale to another with minimum effort and retraining. In response to the requirements for managerial talent—that great deficiency in all developing countries—management skills will be embellished through training programmes administered by public and private institutions, and experience acquired on the job will enable Malaysians to supplant expatriate managers. In response to numerous technological requirements, advances will be adopted to keep Malaysian products internationally competitive, research will be conducted to adapt technology for Malaysia-specific applications, and the technical expertise of Malaysians will be developed to reduce costs and the reliance on foreign technicians. In response to the requirements for infrastructure, the networks of transportation, communications, and utilities will be expanded to keep the economy running smoothly and to facilitate the availability and flow of critical inputs and outputs.

There never will be enough domestic capital, enough skilled labourers and managers, enough wisdom in natural resource exploitation and utilization, enough inexpensive and usable technology, or enough infrastructure to support all of the country's commercial, industrial, and agricultural undertakings. As attempts are made to meet these requirements, gaps and shortfalls will be identified, and concerted efforts will be devoted to resolving them. Many mistakes will be made, and the steps taken will always seem feeble in comparison to the requirements they are intended to meet. It should also be noted that most of these endeavours are devoted to increasing production,

not to optimizing production. And, because nothing governs the mobility of productive outputs so much as the demand for those outputs and the availability of inputs to produce them, optimizing production in the context of a long-term perspective can be very different from maximizing production in the context of the short-term perspective that dominates present planning. These realities conspire to make even the determination of optimum production exceedingly difficult, not to mention its pursuit. But it is possible to determine some of the elements constituting optimum production and to pursue the optimization of the conditions in which production is undertaken. This might make it possible for shortfalls to be minimized, and for the mobility of inputs and outputs to be increased.

Three general areas of consideration for optimizing production conditions include the removal of bureaucratic impediments, the selection of appropriate production alternatives and technology, and the development of services. These considerations do not relate to industrial production alone, although this is a common bias. These relate equally to agricultural production. Because of the continuing prospective importance of agriculture in the Malaysian economy, agricultural production deserves at least as much attention and preferential treatment as are given to industrial production. Having made this necessary qualification, it is possible to move on to the examination of the ways in which production conditions might be improved.

The attitude and capability of the bureaucracy to facilitate economic activity, not impede it, is critical. Obvious first steps are the removal of unnecessary bureaucratic impediments and taking care to avoid the creation of new ones. Certain political and socio-economic objectives build impediments into the system, and these must be lived with. Delays in providing approvals for various undertakings can be reduced, and the unnecessary red tape resulting in inefficiency and corruption can be ferreted out. Businesses and public corporations should help identify such impediments, for they suffer them and consequently know them best. These are only the first steps, however. The bureaucracy has the power to do substantially more than passively allow enterprises greater freedom and efficiency in their undertakings. The bureaucracy can actively assist public and private enterprises by facilitating the entry and flow of capital, labour, products, and producers. If the machinery were

created, these enterprises might inform the bureaucracy about what might be done in this regard as well. There are three further areas in which the bureaucracy can assist: influencing the composition of production so that maximum benefits can be realized from available inputs; facilitating the entry and development of technology that is appropriate to purposes and conditions in Malaysia; and providing support for the development of production-oriented services.

Optimizing the composition of production by diversification is a tricky process. The tendency of manufacturers is to look at imported consumer products of low to intermediate complexity and then to produce these domestically. This conventional strategy of import substitution with a view to eventual export promotion may be attractive, but it is inappropriate as a long-term strategy for Malaysia. The market is too small. The likelihood of getting to the stage of producing surpluses for export, given the difficulties of becoming internationally competitive with the export-promoting nations, is too slight. The frequent result is that protective tariff walls are erected and consumers receive goods of lower quality at higher cost than they would have if the import had not been substituted. The import-substitution strategy will nevertheless continue to be pursued because of its short-term impact on payments balances, employment creation, and the extension of manufacturing activities to diversify the economy. Another diversification strategy is to encourage the development of low complexity finishing activities based on cheap labour. The benefits from labour-intensive, export-promotion activities are the same as those accruing from import substitution — payments balances, employment creation, diversification — but the validity of these operations is even shorter in term. As soon as the competitive advantage arising from low labour costs is lost, the propensity of the operation to shift elsewhere markedly increases. Consequently, neither the development of import substitution into export promotion nor the development of value-added export promotion based on cheap labour should be pursued indiscriminately. Both are highly competitive internationally, and their continuing prospects are severely compromised by the probable world-market debut before the end of the century of the People's Republic of China, with its vast and highly disciplined work force. Why, moreover, should Malaysia try to improve its foreign exchange position by

domestically producing flashlight batteries and pocket calculators? Far more substantial, secure, and continuing improvements can be made by adding value to the exports of those primary commodities for which the country controls much of the world's production.

The conventional pursuit of light manufacturing activities for import substitution and export promotion must be paired with downstream activities finishing primary commodities for export. In the selective downstream production of these commodities, Malaysia could develop a decisive edge that would make its export products internationally competitive. The government can ensure that this in fact occurs. Consider timber. Malaysia, Sabah in particular, is one of the world's major exporters of tropical hardwoods. Yet these exports are almost exclusively of round logs—a commodity which moves from the forests of Malaysia to the sawmills of Japan, Taiwan, and South Korea with virtually no value added. One reason for this is that sawmills in those countries, because of high productivity and efficiency, enjoy 100 percent yields from the logs. Malaysian processors obtain 50-60 percent yields. A second reason is that it is very costly to get into efficient milling and very difficult to make that milling efficient. A third is the feeling that foreigners tell Malaysia what sort of industries it should go into and the ways in which resources should be utilized, and that they keep Malaysia out of activities that would compete with their own interests, particularly in downstream production. Similar examples could be found in palm oil, tin, rubber, and to a lesser extent, petroleum and natural gas production.

There are two ways Malaysia can take advantage of these downstream possibilities: on its own, or by the stage-by-stage development of manufacturing and processing activities in partnership with the major purchasers of these commodities who presently do the secondary finishing in their own countries. The second of these options would, for Malaysia, be faster, cheaper, smoother, and entail fewer risks than the first. Is enough being done to promote long-term considerations, even at the sacrifice of short-term gains? Are present efforts to promote domestic entry into downstream production sufficiently concerted? Has an overall plan been developed in concert with producers and buyers in the industrial countries? Are enough mechanisms being created to enable joint undertakings by Malaysian and foreign

interests to increase the values added to commodity exports on an incremental basis? No.

The selection of appropriate technology is as critical to the optimization of production as is the selection of appropriate production alternatives. Today, many companies prefer to acquire the most advanced technology in the expectation of carving out a part of the international market. But does this make sense? Is not the effect to push up capital and running costs because the machinery is running far below capacity? When Malaysians hear arguments like this, they immediately counter that there is no reason to import obsolete technology when ultramodern technology is imperative for competitiveness in the international marketplace. This complaint is valid only if other factors — labour costs, labour skills, production volumes, and distances from markets — are more or less equal. But they seldom are. Still, the fruit forbidden by logic is the sweetest, and pride and short-sightedness frequently overshadow opportunity. This psychology accounts for the reluctance of most developing countries to pick up a certain technological artifact simply because the industrial countries have rejected or replaced it. But, clearly, the technology imported or developed must be matched with the task it is intended to perform and with local capabilities.

It does not make much sense for Malaysia to attempt developing complex technology on its own, for the efforts would be costly and time-consuming. This is particularly true for technology that can be easily transferred, like computers. Similarly, it does not make sense for Malaysia to import the most advanced technology when it requires technology only of intermediate complexity. Nor does it make sense for Malaysia to borrow the technology *in toto*, without adaptation, if no one knows how to operate the machine or repair it when faults occur. What does make sense for Malaysia is to develop useful, cost-efficient applications of technology, taking western technical developments, but developing local applications to increase familiarity with, and compatibility of, machinery. An evaluation is necessary —of those applications where the most advanced technology is appropriate, of those where cast-off and obsolete technology is appropriate, and of those where alternative, indigenously created, or indigenously modified technology is appropriate. Such an evaluation would presumably make a separation

between the technology for import-substitution and export-promotion activities. Local research, too, is necessary—not research which duplicates that of the West, but which complements it by focusing on Malaysia-specific applications of internationally available technology. Malaysia might one day export such applications to other countries at levels of industrial development similar to its own.

In theorizing about economic development, a great deal of emphasis is always given to the transfer of technologies. Little attention is paid to the transfer from the industrial to the industrializing nations of service capabilities—those intangibles necessary to give validity to the technology-transfer strategy. However advanced the technology imported into Malaysia may be, the country will be one step or more behind internationally if it cannot keep the machine running, repair it quickly when it fails, organize labour and materials to ensure operating efficiency, and get the products of the technology from machine to user. In fact, the one impediment holding developing economies back in their efforts to industrialize is the absence of services. The services that government, business, and individuals provide to each other embrace everything in the economy not directly related to agricultural and industrial production. These services, necessary to support the growing technological component of industry, fall into three basic categories: manufacturing support, administration, and sales.

All industrial economies have substantial services sectors, in some instances accounting for more than half of GNP. Yet, the development of services in countries like Malaysia is all too frequently given insufficient emphasis in the overall strategy of national economic development. Given the relatively fixed limitations on the ability of industrial-sector growth to provide new opportunities for employment—growing efficiency and productivity imply diminishing marginal requirements for labour during the move from labour-intensive to technology-intensive activities—the development of services would facilitate the government's objectives for employment creation. Given the capital requirements of most manufacturing activities, the possibilities for the individual entrepreneur are slight; it is thus in establishing services that his real opportunities for creative risk-taking lie. The capital inputs, at least initially, need not be substantial. The long-term possibilities for creating employment and

facilitating the effectiveness of the economy's productive sectors are considerable. And once these capabilities are established domestically, they are eminently exportable to other countries in the region. In Malaysia today, the bulk of available services are those which encourage consumption. These may help local producers, but, by encouraging individuals to buy more, the savings which might be directed to production are necessarily diverted. Ideally, the greatest attention would be devoted to those services—for example, in trouble-shooting, research, maintenance, and vocational training—which enable the productive and production-supporting sectors to be more productive and which urge Malaysians to be more productive themselves. Such operations need not be large at the outset, either. They can grow in accord with the demand to support the expanding manufacturing activities. At the same time these can provide a new source of good opportunities for employment. The decidedly non-productive services can be relegated to secondary importance. In all of this creation of services, there is considerable room for government initiatives and for institutional support of individual initiatives.

The shift from dependence to interdependence and independence

Most Malaysians, including many top businessmen, politicians, and government planners, demonstrate an almost pathological obsession with reducing their economy's reliance on foreign markets, foreign capital, foreign expertise, foreign technology, foreign managerial talent, foreign organizational forms—in short, on virtually everything foreign. The country is politically independent; it should become economically independent as well. Let Malaysia nationalize the foreign interests in tin, rubber, and palm oil. The West has for too long enjoyed the benefits of Malaysia's natural wealth at bargain prices. Let Malaysia have majority ownership of all companies operating in the country. Control of the operations of firms within its borders should be in the hands of Malaysians, not foreigners. Let Malaysia restrict the activities of transnational companies. They are gouging the wealth of the nation with their dubious pricing and accounting practices. Let Malaysia establish cartels for its major commodities in conjunction with other producing nations. Major sectors of the economy should not be affected by the buying habits of

the industrialized nations. Let Malaysia become self-sufficient in food. It should not be dependent on other countries for its basic requirements. Let Malaysia become entirely free of foreign influences. It can then determine its own policies and make its own choices about the utilization of labour and resources. And so on. This kind of thinking has spawned a series of basically irrational fears that make Malaysians defensive in their dealings with non-Malaysians. It has also led to the unnecessary avoidance of a whole constellation of undertakings and relationships that could otherwise be extremely beneficial to the nation's programme for economic development and technical advancement. Moreover, for all these desires to be realized, the costs to the national economy would be massive. The net benefits would almost certainly be less than if all these things had been left unchanged —except possibly for the intangible benefits of pride.

Economic independence is intuited to be a basic good. In Malaysia, the desire for greater economic independence in the international context is in large part an outgrowth of post-colonial sentiments. Attempts to achieve greater economic independence are thus validated more by intuition than by cold, reasoned, financial analyses. The pursuit of economic independence is fine. But it almost always is very expensive to achieve in terms both of actual costs and opportunity costs. It therefore should never be sought for its own sake. Thus, every time an announcement is made that smacks of economic nationalism, the right questions should be asked: What are the full costs? What are the net benefits? For example, does it really make sense for Malaysia to be self-sufficient in the production of flashlight batteries? Employment may be created by setting up a small factory in Petaling Jaya, the skills of the labour force may be enhanced, imports of batteries may be reduced, the foreign exchange position with respect to flashlight batteries may be improved, and there is always the prospect of exporting surpluses. But what are the full costs and benefits associated with doing this? And might not the costs be lower and the gains greater if an alternative course of action were pursued?

Achieving self-sufficiency in flashlight batteries is desirable only if it involves drawing marginal resources into production without sacrificing other areas of national economic development. If critical resources are diverted from other alternatives which would result in continuing dependence with respect to

flashlight batteries, but which have lower costs and higher returns, the otherwise laudable objective becomes unnecessarily expensive. Experience has shown, moreover, that full economic independence from foreign economic institutions can be achieved only by countries that are prepared to make substantial sacrifices in growth and apply totalitarian methods to ensure that productive efforts and resources are channeled into specified sectors. Such has been the road taken in Burma, China, North Korea, and, more recently, in Cambodia. Because the Malaysian economy will be increasingly dependent on the external world economy and on external technical developments, achieving economic independence in the future will become much more difficult, not easier. This suggests that, if economic independence is wantonly pursued, the sacrifices in growth will be even more substantial and the controls over the economy even more rigorous than at present.

Independence—whether in flashlight batteries, capital, or expertise—is assumed to facilitate greater control. This is the main reason it is sought. Control, after all, is what all domestic economies seek, mainly control over policies and profits; but also over changing conditions. As the orientations of national economies become increasingly international—that is, as the international component of GNP, represented by the percentage imports and exports constitute of production and services, becomes larger—this control is less subject to governmental influence. This implies that control of many elements essential to the health of the Malaysian economy will in all likelihood be less in the future than at present. The fact that this control is not in the hands of Malaysia is seen *ipso facto* as undesirable because it is assumed that the foreign institutions which do affect these elements are acting in their own best interests, not Malaysia's, and that little can be done to influence them. (It would be extraordinary to find foreign institutions that acted in Malaysia's best interests, not their own, but this is not to say that nothing can be done to influence their activities insofar as these relate to Malaysia.) It is also assumed that Malaysia, because of its relative lack of control, has a poor bargaining position and is getting the short end of the deal in the exchange relationship. Malaysia is not interested in full economic independence, but there nevertheless are strong pressures to make the country's economy as independent as possible as quickly as possible. This

is because continuing reliance on external institutions is seen as being tantamount to continuing subjugation in the colonial sense of the word.

But is this *really* subjugation? Although the countries of the industrialized West are dependent on Malaysia for tin, rubber, palm oil, and numerous other products, these countries would hardly call this a condition of subjugation. Yet, when the tables are turned, when Malaysia is dependent on the industrialized West for something, even for markets for primary commodities required by the West, this is immediately construed as subjugation. The truth is that Malaysia is really subjugated by its commitment to continuing economic growth. Because of the assumed benefits that accompany this growth, however, no one complains. Similarly, there are substantial benefits accruing from the activities of foreign economic institutions upon which the Malaysian economy is reliant. Examples would include employment creation, the entry into new markets, technology transfers, and the provision of managerial talent. But these almost always are obscured by the real or imagined accompanying costs. The problem is that in evaluating the many costs and benefits of dependence and independence, the greatest emphasis typically is given to the *costs of dependence and benefits of independence*. The benefits of dependence and the costs of independence are given less emphasis and are often glossed over with political rhetoric. Malaysia is not really concerned with neocolonial subjugation and with its release from the perceived shackles thereof. It is more concerned with acquiring sufficient control and an adequate share of the profits from the relationships into which it enters—be these with other national governments or with private industrial and commercial firms.

The benefits of achieving greater economic independence in Malaysia are obvious: greater control can be achieved over the various elements of the economy; greater profits can be retained for reinvestment; greater influence can be wielded over domestic policies and planning; and, perhaps equal in importance to the rest combined, a greater sense of pride can be attached to progress in the economy because Malaysians, not foreigners, have achieved this progress and will be its chief beneficiaries. The costs are less obvious because in most cases these are not direct but invisible, that is, the losses cannot be directly computed, as they are usually benefits unrealized. Yet even

when an evaluation reveals that the economic costs of achieving greater independence in a particular sector are greater than the economic benefits, non-economic benefits are brought into the picture to justify some costly moves towards independence. Non-economic costs and their implications are not; neither is a comparison with the costs and benefits of staying with the dependent situation. This is particularly apposite in the case of massive capital projects. Malaysia's purchase of five liquid natural gas (LNG) tankers for $1 billion can be seen to decrease the country's dependence on foreign carriers and at the same time gather in the profits of transporting her own natural gas. It remains to be seen whether the returns from this investment to the economy will have warranted this allocation of capital and whether these will be greater than returns from other investment alternatives foregone by tying up this capital over a long period.

The tendency not to explore fully a broad range of alternatives suggests that it may be useful, in attempting to determine the full costs of achieving greater economic independence, to classify all economic activities according to sector and function. Steps can then be taken to identify those activities in which independence should be sought, in which dependence is inevitable and should be better accommodated, and in which dependence exists but is not inevitable. In this third category, dependence can be replaced with a form of interdependence that increases the control and enables greater benefits without commensurate increases in costs (that is, more than would accrue if independence were directly pursued). Among the various dependencies on external institutions, the trend will be for some to continue, as with the dependence on capital, while some will be gradually reduced, as with managerial talent. Other dependencies—for example, that on modern technology—appear almost certain to increase. One danger is that dependence is resolved mainly by working directly towards independence. Forgotten all too often are the costs and benefits of interdependence, that alternative and intermediate condition which, if approached in the context of cooperation and mutual goals, can go a long way to ease the antagonism and competition inherent in the shift from dependence to independence. Malaysia thus has a requirement to live with dependence where this is unavoidable, to establish conditions of increasing interdependence where this is possible, and to seek independence only where this makes

sense and is not too costly. What are the inevitable dependencies? What are the possible independencies? What are the desirable interdependencies? It requires considerable understanding and wisdom to separate these many elements. It takes considerable confidence to overcome the past obsessions which have obscured that differentiation at some indeterminate, but nevertheless substantial, cost to the nation.

Relationships with foreign economic interests

There are two ways to approach the implementation of decisions to shift from conditions of dependence to those of interdependence and independence. The first is to proceed in conjunction with the foreign institutions from which control and proceeds are being wrested—that is, with the foreign-based commercial and industrial firms, the most powerful of which are transnational, and with the agencies of foreign governments. The second is to proceed apart from these same institutions. Whichever route is followed, the relationships with these institutions must be better understood in all their dimensions. The fact is that Malaysia is involved in these relationships today and will be involved in more such relationships in the future. It therefore makes sense for the country to do everything that can possibly improve its negotiating position with foreign economic interests, while at the same time preserving existing and potential relationships that are demonstrably beneficial. Reliable information is similarly mandatory. With it, understanding can be acquired, and negotiations can be approached with competence, confidence, and wisdom. If these basic steps were taken, it should be possible to increase the relative degree of Malaysian control in these relationships. Malaysia could then progress more rapidly and profitably along the perilous continuum from dependence to independence, maximizing the benefits realized therefrom and minimizing the associated costs.

Until now, Malaysians involved in negotiations with foreign institutions have seemingly seen the relationships largely in antagonistic terms: us versus them; Malaysia versus the transnational firms; Malaysia versus other countries, particularly those in Southeast Asia. Malaysians have, moreover, seemingly assumed that their antagonists have available to them more information, more leverage, and more high cards which enable them to come out on top in any negotiations. The basic

Malaysian response has been—or at least the basic tendency has been, and this tendency has influenced the response—to close their adversaries out, and not to deal with them at all. The feeling has been that Malaysia can go it alone, albeit at a slower pace and with some short-term interim costs. Where unnecessary sacrifices in control over critical resources, or threats to national security, are involved, this caution is perfectly justifiable. Where simple pride, insecurity, and spite are involved, this is indefensible, for the resulting losses can never be recovered.

It is no simple task to deal effectively with transnational firms, but it is a far more difficult task to deal without them, however desirable this may seem. This is not to say that dealing without them is necessarily the inferior strategy. It does take a lot longer to develop the economy independently, but the experience so gained may be of great value to the ultimate intrinsic strength of that economy, as seems to be the case in the already cited examples of China and North Korea. Transnationals are, nonetheless, the most effective institutions available today for transferring technology, supplying expertise, and providing access to the markets of the world. These services are not offered free-of-charge, though many countries think these should be. This more than anything else accounts for the poor reputation of the transnationals. This reputation is in many ways deserved, for they have taken advantage of situations in which they were not closely watched. But such situations are the fault of the host countries as well, not so much for failing to control transnationals rigidly as for failing to understand better the nature and character of their operations and to monitor these operations with this understanding in hand. The resulting strategy for dealing with the transnational companies has been either defensive or defenseless. The operating assumption has been that transnationals would, if given the chance, strip the country of whatever resources and profits they might smuggle outside the borders. To prevent this, all sorts of restrictions have been imposed on their activities.

The transnationals do not like restrictions, but they will accept them under certain conditions. Generally, they are interested in doing business, and the perceived willingness of a government to create a climate that is conducive to efficient operations is often of far greater importance to the transnationals than tax incentives, labour costs, and other factors

which have a direct influence on profitability levels. Singapore created such a climate with great success during the late 1960s and early 1970s. In many instances, transnational firms establish operations in a particular country solely on the basis of a government's predisposition to cooperate with them, for example, by facilitating immigration passes for expatriate staff, responding swiftly with decisions, and cutting through bureaucratic detail. It should be made clear that the relationships are not expected to be friendly. But the intense bargaining and negotiating that ensue are expected to engender mutual respect.

In addition to establishing constructive relationships with foreign firms, particularly the transnationals, Malaysia has much to do in establishing dialogues with foreign governments and their agencies. These dialogues fall into three basic contexts: multilateral negotiating blocs; multilateral exchange relationships; and bilateral exchange relationships. In all these, too, Malaysia must adopt the strategy of mildly aggressive interaccommodation in which the costs and benefits are consistently and fully evaluated. The first steps in this involve the creation of the necessary intergovernmental agreements and mechanisms to facilitate trade, movements of currency, and the conduct of business by transnational firms. But there is more to this process than these actions alone.

The Association of Southeast Asian Nations is one great hope on the horizon. In the past, the ASEAN countries — Malaysia, Singapore, Thailand, Indonesia, and the Philippines — have preferred to deal directly with the developed countries, rather than with other ASEAN countries. Why? Because this interaction was traditional and expected — even though ASEAN countries may have been coming out on the short end of the deal. Pride has also been evidenced. Malaysia, for example, has preferred to buy many of its products from the industrial nations when it could obtain them, perhaps even at less cost, from Singapore. Of course, Malaysia and the other ASEAN countries have been pushed into these patterns by the industrial countries' practice of playing off ASEAN nations against one another and making purchasing relationships a reciprocal condition of their purchases of raw materials and finished goods. But when ASEAN picks up added momentum, united stands against the industrial nations can be anticipated, particularly with regard to primary products. So can the provision of a massive pool for mutually advantageous

industrial development. These steps have been foreshadowed by the direct ASEAN negotiations with the European Economic Community and the agreement in principle to avoid duplication in major industrial undertakings. The hope is that this strategy will eventually apply to products of intermediate complexity in order that a regional market for competitively and comparatively advantageous import substitution can be created. ASEAN manufacturers would, by virtue of the larger markets and greater production efficiencies, be able to compete more effectively with producers in the industrial nations. It seems unlikely, however, that this kind of cooperative arrangement could ever work for products low in technical complexity and capital requirements. The simple reason for this limitation is economic nationalism. To get five countries to agree on who-gets-what is expecting too much from countries that only recently began to enter into serious discussions with one another about mutual possibilities. Further, the creation of an ASEAN zone of import substitution will always require delicate diplomacy because of Indonesia's tendency to guard its massive market. Regional import substitution should therefore be attempted only for those products insufficiently viable in terms of single-nation capabilities, whether on the production or consumption side.

Also to be fostered are bilateral arrangements with other ASEAN countries. Bilateral arrangements will do nothing to preempt the negotiations in ASEAN corridors; indeed, these may facilitate them. Perhaps offering greatest potential among these bilateral arrangements are those that might be established with Singapore—a suggestion which still raises irrational opposition throughout much of Malaysia. It must nevertheless be conceded that there is considerable duplication between the Malaysian and Singaporean economies and that there are considerable opportunities, particularly for Malaysia, in reducing this duplication. The other areas for bilateral exchange relationships are with nearby, essentially industrial countries, such as Australia, New Zealand, Korea, Japan, Hong Kong, and Taiwan; with countries at a level of development similar to Malaysia's, such as Bolivia, Mexico, and Brazil, for exchanges of information and experience; and with countries offering fresh markets, such as the oil-rich countries of the Middle East which are looking for places to buy manufactured goods and primary products and also to invest their reserves. The ultimate medium for interchanges will

be the transnational firms, but the context for initial discussions and the encouragement will have to be between governments. These, too, will have to be entered confidently and competently and with an understanding of the benefits to be gained and the costs to be paid.

Domestic consensus on economic options

The Malaysian government wants three things from the private sector: activities which provide a stable base for continuing economic growth and development; a share of the proceeds from these activities to fund its operations; and assistance in achieving its numerous socio-political objectives. The private commercial and industrial firms in Malaysia want three things from the government: bureaucratic support to facilitate their activities; a minimum of government interference, intervention, and regulation; and the ability to retain maximum proceeds from their investments. Given this basic tension between public and private sectors, it is obvious that if government wants private business to assist in the realization of socio-political objectives, it has to accommodate the private sector somewhat in terms of revenues sought, controls exerted, and bureaucratic services provided. Similarly, if the private sector wants the government to facilitate the conduct of business and to ease off on the share of their revenues taken through taxation, it will have to accommodate the government in the realization of socio-political objectives. Neither accommodation is at present being made — for reasons to be explored shortly — but both will have to be made in the future if the country is to have an open, burgeoning economy.

When numerous socio-political objectives are pursued through governmental intervention in the economy, as is the case in Malaysia today, it is absolutely essential to have an effective bureaucracy. This implies far more than balancing the budget, stabilizing inflation, and keeping the money supply pegged to production. For example, a major responsibility of the government bureaucracy is to provide the infrastructure, both physical and administrative, to facilitate the operation of private commercial and industrial undertakings. If the bureaucracy does not create a proper atmosphere for the conduct of business, if the bureaucracy is massive, unwieldy, inept, and corrupt, then there are going to be problems in the economy and, by exten-

sion, in the achievement of socio-political objectives. In looking at the successful industrial economies, one finds the common denominator of reasonably effective bureaucracies. Although few in Malaysia would claim that the country's bureaucracy is superb, it is a lot better than its counterparts in most other Southeast Asian countries. Malaysia may currently be fortunate in this respect, but the bureaucracy can degenerate. And if foreign, Malaysian, and even Malay investors see a continuing erosion of their investment potential because of bureaucratic ineffectiveness and resistance, they will be certain to turn to alternatives elsewhere. Three factors in particular will be compromising the future effectiveness of the Malaysian bureaucracy: corruption; continuing intervention in the economy for socio-political purposes; and the transitory associations of Malays with the bureaucracy and non-Malays with the private sector, associations which make the two sectors communally antagonistic.

The effect of corruption on bureaucratic effectiveness (a topic explored in the third chapter of this commentary) requires little further comment other than to note that official extortion, if allowed to persist, will spell a death sentence not only for economic objectives, but for all socio-political objectives. In Malaysia, there exists a pattern of bureaucratic corruption—of trade-offs between businessmen and the bureaucrats. Little is said now because these trade-offs bring results and because they are essentially between the Malays on one hand and the Chinese and foreigners on the other. It may even be that corruption is the most effective means to ensure that the bureaucracy does facilitate business. But a lot will be said in the future if corruption permeates the entire bureaucracy and becomes a way of life, as it has, for example, in Indonesia, where every undertaking has a 30 percent add-on for payoffs.

All governments find it tempting to tinker with private enterprise to further their social and political objectives. Malaysia is no exception, and this introduces the second factor compromising bureaucratic effectiveness. Because the private sector is reluctant to incur the economic costs associated with socio-political changes, the government has a ready rationale for its increasing intervention in the economy and for engaging in numerous enterprises normally undertaken by the private firm. The thinking is this. If these things were left to the private sector,

they would never be accomplished. But governments, on the other hand, are notoriously ineffective in direct participation in the economy, mainly because they are not accountable to banks, shareholders, or even voters for their lack of profitability. Some participation, of course, is necessary, if only because of the equally notorious ineffectiveness of business in achieving social and political objectives. But the further the objectives of government participation move away from purely economic considerations, the less effective the participation will be if economic criteria are applied. The interventions thus far, mainly in the form of public corporations, have been necessitated by the incapacity of private-sector institutions to achieve socio-political objectives. Sensible government intervention is perfectly justifiable, as when government undertakes activities that the private sector is ill-equipped to undertake because the capital costs or risks are extreme. Oppressive government intervention is indefensible, as when the government competes with, rather than complements, the private sector.

One virtue of the capitalist system is that it does not require a competent bureaucracy: capitalist undertakings can pretty much survive on their own with a minimum of bureaucratic support. The chief flaw in socialist systems is the requirement for an incredibly effective bureaucracy. The irony in this is that the more a government goes socialist — that is, the more a government participates directly in the economy — the less is the capacity of that bureaucracy to be effective. This is something Malaysia will have to monitor very closely in future. As the bureaucracy undertakes more and more of the activities normally reserved in capitalist economies for the private sector, the less effective it will be — not only in its public enterprises, but in its more conventional activities of providing logistical and administrative support to the private sector. As the public sector grows, it strangles not only itself, but the private sector as well. The more incompetent it becomes, the more it has to redeem itself by competing institutionally with the private sector and by skimming the best opportunities off the top. When the public sector, with all its institutional advantage, competes directly with the private sector, the incentives of private enterprise are severely compromised.

The third threat to the effectiveness of the bureaucracy — the transitory associations of Malays with the public sector and non-

Malays with the private sector — is more subtle. The natural resistance of the private sector to incur economic costs by pursuing the socio-political directives of government is seen not as a natural and expected phenomenon, but as anti-Malay. In the eyes of many Malay bureaucrats, the private sector is seen as the opponent of government and of pro-Malay public programmes. One result is that these bureaucrats obstruct the activities of private companies, feeling that they do so with the best interests of the Malays at heart. As long as there is communal identification with these two sectors, the likelihood that competitiveness will prevail over complementarity is high. The heavy involvement of Malays in the bureaucracy perpetuates the identification of ethnicity with economic function, precisely the thing government says it is trying to avoid. Although this may be acceptable as a short-term phenomenon, because it probably is the fastest way possible of getting large numbers of Malays plugged into more responsible economic positions, it cannot be allowed to persist indefinitely.

Insofar as long-term economic growth will be jeopardized by the continuation of these three patterns, as will the capacity of government to achieve its socio-political objectives, a deal between the two sectors must be struck. Such a bargain could result in a greater consensus over goals and means. If the private sector is to pursue some of the government's socio-political objectives, it must get something in return. The government has some things to offer — the reduction of corruption, to reduce the costs and frustrations of doing business; the reduced participation of the government in the economy in future, to improve the conditions for private investment; and the receptivity of public enterprises to non-Malays, to give them the feeling that all of the government's economic programmes are not for the benefit of Malays alone. The first can be done quite soon. Although corruption can never be eliminated, it is possible to instill an attitude in government and the bureaucracy that improves the climate for conducting business. The second can be achieved only in the medium term. For the government to achieve its social and economic programmes, it appears certain that its participation in the economy will expand for at least another decade. What is immediately possible, however, is for government to spell out to private businessmen its specific intentions for the extension and expansion of public enterprises and

the timetable envisioned for degovernmentalizing many of these functions and activities in future. The third possibility — opening public enterprises to more non-Malays — is a long-term proposition. The 30 percent goal has become an article of faith, and the only possible way to achieve this by the 1990 target date is through the continuing growth of Malay-interest enterprises in which the share capital is reserved by the government for Malays to buy up in the future. Having these institutions perceived as Malaysian, not Malay, will be resisted by the Malays so long as economic imbalances exist.

Two additional sectors — the workers and the consumers — are at present of little consequence and largely ignored, but will achieve greater prominence in the future. Over the next quarter century, the dynamics of the relationship between the public and private sectors are going to be made far more complex by the growing strength first of organized labour and then of organized consumers. The effect of organized labour on most industrial countries has been paralyzing. Malaysian policy-makers in both the private and public sectors should therefore study the experience of these countries and begin to formulate the institutions that can keep labour in an uneasy partnership with government and business. Steps should also be taken to ensure that labour continues to develop along multi-ethnic lines. Much of Malaysia's future economic success will depend on orderly relations among business, government, and labour, and the sooner it begins to pave the way for smooth relations, the greater is the likelihood these can be reasonably harmonious.

Reducing urban-rural disparities

Ideally, the growth rates of productivity and per capita GNP in the rural sector should keep pace with those in the urban sector, and the drift of people to urban areas should be in line with the urban demand for labour. Although this is precisely the situation that occurred in all of the world's presently industrialized countries, it is not occuring in any of the presently industrializing nations. Instead, the growth rates are vastly different. Rural productivity has stagnated and virtually all the increases in GNP originate from the urban sector. The GNP increases that do originate in the rural sector invariably accrue to the urban sector and are reinvested there. Although this investment creates new urban opportunities, it does not take place at a sufficient rate to

create enough fresh requirements for labour to accommodate migration to urban areas, resulting in the formation of squatter areas and slums. Malaysia, like all other developing countries, is subjected to these conditions, but the situation is not as unmanageable as it is elsewhere. There is no sharp rural-urban division in Malaysia. Instead, there is a continuum that people can move along gradually—from *kampung*, to small town, to large town, to city. Further, instead of there being a single city to which all migrants flock, there are a number of development poles spread throughout the country. The urban opportunities in Georgetown, Butterworth, Alor Star, Ipoh, Klang, Seremban, Johore Bahru, Kuantan, Kuching, Kota Kinabalu, and Sandakan relieve the pressures on Kuala Lumpur and Petaling Jaya. The nation's population is also, at least to date, relatively small. Unlike Indonesia (130 million) or Thailand (40 million), Malaysia has to cope with only 12 million. These demographic features, combined, do not signify that Malaysia has little to worry about; merely that it still has a chance. It seems likely that productivity and per capita GNP growth in urban areas will continue to race ahead of that in rural areas, and that this will draw significant numbers of people into conditions of urban poverty from which they will find it difficult to escape. To avoid a continuing situation of increasing disparities in living standards between the rural and urban sectors, two developments must occur: agricultural productivity must be increased; and additional opportunities for employment must be created in the rural areas. How these are to be best accomplished is another matter entirely. The typical approach to the first is to make substantial direct injections of government funds; the typical approach to the second is to encourage light industries to locate in out-of-the-way areas accessible to the rural labour surplus. Both are bottomless pits. Direct government injections, no matter how substantial, and light industry locations, no matter how numerous, can never keep pace with the rural requirements. They merely palliate the symptoms of the rural condition without attacking the fundamental causes.

Savings, real and artificial, are one critical element in agricultural development and modernization. Here, savings are equated with the funds available for investment—in land, seed, fertilizer, machinery, and labour. Today, the funds that would otherwise be available for rural investment are being deflected

to urban areas. These funds slip through the net gathering funds for rural investment in three basic ways: earnings of the large plantation companies accrue to urban-based operations; earnings of middlemen accrue to urban-based investors; and the surpluses farmers do manage to accumulate accrue to urban-based investment funds like Tabung Haji. The surpluses that are earned in the rural sector thus support economic activities in the urban sector, when it should be the other way around. Although the plantation companies and middlemen do pour funds back into the rural economy, they do not pour back as much as they might. And although direct public spending by government offsets in part the flight of funds from rural areas, it does not do this as completely or effectively as it might. The reason for these patterns is that returns on urban investment are greater. This need not be the case.

The notion of impeding the expatriation of rural funds to urban areas, along the same lines as impeding the expatriation of domestic funds to foreign countries, has seemingly been ignored. There certainly are no comparable figures available on capital inflows and outflows and net payments balances between rural and urban areas in Malaysia. It may therefore be appropriate to adopt a strategy similar to that of the national economy regarding international flows of funds. Malaysia, as a nation, does what it can to attract foreign investors to bring in their capital, expertise, market knowledge, and technology and to induce local investors to keep their funds in the country. Cannot a similar strategy—to have the plantation companies invest a larger percentage of their earnings in rural areas, to have middlemen reinvest a larger percentage of their profits in rural areas, and to have rural dwellers themselves be induced to reinvest their savings, however meagre, in rural areas—be adopted for the rural sector? For this strategy to be workable, the returns on investment in the rural sector must be increased, because the chief difficulty in attracting investment funds to the rural areas is the insecurity of the investment and the relatively low rate of return. Capital naturally flows to secure investments of highest return.

The need is frequently cited for an imaginative and tightly-administered rural credit system which gets funds into the hands not of those who need them least, but who need them most. However noble and substantial the existing programmes of rural-

oriented government institutions may be, it is assumed that the delivery of funds to rural agriculturalists falls far short of the total requirements for rural credit. Although the shortfall can never be fully bridged, it can be reduced. One way of doing this is to leverage the funds directly invested by government in the rural sector. Instead of subsidizing the farmer on his sales and purchases—another of those bottomless pits that palliates without curing—greater emphasis can be given to subsidizing the returns on rural investment. For example, the government might get more mileage out of its direct spending by guaranteeing private funds invested in the rural sector on a split-risk basis and subsidizing the rate of return on investment to make this sufficiently attractive to the investor—a part of which would revert to the government anyway, in the form of taxes. This would take care of the problems of security and return, and as the rural sector develops, the requirement for government injections would decline, not increase. Presently, the agricultural bureaucracy is doing all the conventional things—strengthening the rural credit and marketing systems, supporting prices during slack markets, providing technical advice, improving basic services, and so on—and it is doing these well. But unless fantastic sums are allocated for these purposes in future, it will be impossible for government programmes to keep pace with the requirements of the rural sector. The investment subsidization programme proposed here is intended to supplement existing programmes, not replace them. It is an addition that might be experimented with to keep down the demands on existing institutions and enable the gains in productivity and per capita GNP necessary in rural activities and areas.

A second essential element in agricultural development and modernization is a system of land reform which encourages the consolidation of existing holdings into larger parcels which are more economically feasible to operate. This is not easy at present. It will be neither easy nor popular during the period before the end of the century when the number of rural dwellers will increase by more than four million to a total of 12 million. The current system of land tenure for *padi* land galvanizes uneconomic small holdings and must change, but because of strong feelings about the land, it need not change entirely. A separation of enterpreneurial farmers and peasant farmers is required for the creation of a viable rural sector that can attract

investment funds, or at least impede the outflow of funds. Certain reforms which result in such a dual agricultural economy — one based on cash, the other on subsistence — have already been introduced, notably with the massive land development schemes like Jenggka Triangle and Pahang Tenggara. But this kind of expansion has inherent limitations. The best lands have already been opened. The productivity potential of lands opened in the future will be steadily declining, partly because the costs of opening new land will be increasing, but also because of the declining quality of that land. Some planners no doubt look at the vast acreages held by the plantation companies and covet their potential to support the growing rural population. But these estates have nearly peaked in their requirements for labour, and fragmentation of the plantations into small-holdings would reduce their production output and all the benefits accruing thereto. The remaining possibility is to increase the productivity of the *padi* areas — an increase which can occur only by the application of mechanized and sophisticated methods to larger holdings. Additional institutional mechanisms must be created which enable the formation of viable holdings, but which at the same time permit those choosing to remain with the traditional ways to do so. Otherwise, a wholesale reform of land tenure could have the concurrent effect of accelerating the flow of rural dwellers to the cities, thus exacerbating the very problem it is designed to solve. The institutional resistance to land reform, as distinct from rural resistance, has been based largely on the lingering suspicion that improving agricultural productivity will decrease the capacity of the land to support people. But the present policy of impacting the rural sector with few opportunities for escape to rural alternatives is suicidal — socially, politically, and economically.

The creation of new employment opportunities is a third essential element in rural development and modernization. This does not mean commercializing and industrializing the rural sector by inducing companies to establish their operations in locations accessible to the rural populace, even though this can help. Pushing light industrial activities to essentially rural locations is seen as one way of solving the shortage of rural employment opportunities, but it has the effect of disadvantaging these industries by separating them from their infrastructure and adding to their operating costs. Both factors compromise viability

more than any tax incentive can compensate for. It always is cheaper and more efficient to bring the labour to the work site than to bring the work to the labour site. To do the latter necessarily holds back the industrial sector. There nevertheless are a number of commercial and production activities which are competitively advantaged when they operate in rural areas. These are support, processing, and distribution activities related to agricultural production. If properly organized, these can provide full-time employment to some rural dwellers and part-time employment to others. This has happened in all the presently industrial countries and is absolutely essential for increasing individual productivity and making the individual productive when he or she would otherwise be idle. As agricultural productivity increased in the industrial countries, so also did opportunities for part-time employment pick up the slack when agricultural workers would otherwise have been idle. And as the skills of the rural dwellers in Malaysia extend beyond those associated with working small-holdings and plantations, so, too, will it be possible for them to engage in other productive activities, enabling the shift of various undertakings from urban to rural sites.

Militating against the pursuit of these strategies is the fact that the capital resources of the nation are limited. As a consequence, it is felt that these should flow into those economic undertakings offering the greatest returns and, hence, the largest contributions to economic growth. This may, however, be an intuitive oversimplification. The effects of making short-term sacrifices in the industrial sector, say for five or 10 years, to achieve long-term productivity gains in the agricultural sector are unknown. Failing to experiment in this regard inevitably results in the transformation of the urban-rural dichotomy into rigid corollaries: advanced-retarded; high productivity-low productivity; commercial/industrial-agricultural. Whatever is done, the urban sector seems preordained to be incapable of providing sufficient opportunities to the vast numbers — eight million or so — that will be added to the urban populace in the last quarter of this century. Given the ultimate deleterious consequences of such a condition, another look at improving the rural condition may be warranted. The alternative is to accept the permanent retardation and isolation of the rural sectors, along with all the adverse social, political, and economic consequences that will

necessarily follow.

The mitigation of expectations

More than ever before, the expectations of all Malaysians—about the houses they will one day own, the cars they will one day drive, the jobs they will one day hold, and the money they will one day earn—are exceedingly high. These expectations originate in several ways. They are the product of: the rhetoric of politicians who talk about eradicating poverty and restructuring society; the prosperity that has brought so much and promises to bring much more; the media promotions that urge consumption not of the merely functional, but of the conspicuous and luxurious; the visibly excessive consumption of the middle and elite classes; and the simple fact that as the national population increases, so also does the total of its expectations. People refuse to recognize that not everything can be achieved at once—that if there is to be rapid economic development, there must also be some sacrifices in equity, justice, democracy, and in the varied accomplishments of many individuals. Thus, expectations invariably run ahead of their realization. When expectations are realized in part, there is some satisfaction, albeit partial, motivating the individual to try and realize more. But when expectations are not realized at all, as for many of the poor, especially the rural poor, there is fuel for general dissatisfaction, if not revolt. Hence, the key question: Will there be enough investment, growth, jobs, farm land, services, and low-priced consumer goods to enable Malaysians adequately to realize their expectations over the next quarter century and beyond? The answer must be: Definitely not. The critical factor will therefore be the degree of shortfall between expectation and realization.

Fundamental scarcity is the root of the problem. People want more than they have and, because the sum of things desired is greater than the capacity of any economic system to deliver, they must compete with one another to realize their desires. One desire realized usually means another desire frustrated. Perhaps Buckminster Fuller is correct when he claims that, once the problem of scarcity is solved, conventional economics, conventional politics, and even the conventional organization of society will go out the window. The relentless requirement in the meantime is to get more and more goods and services to more

and more people. Because little can be done to persuade people to want less, or not to want more, the main thrust in Malaysia has been to promise and provide people with more. This has left everybody with a sense of dissatisfaction, albeit compensated for to varying degree by certain satisfactions. It is nevertheless possible for the entire populace to want less, without at the same time smothering individual motivation, and for the individual to receive more. This can be accomplished by not having so many people in the entire body politic.

Malaysia is undergoing what population analysts call a *demographic transition*. Although the country previously had high annual rates of births and deaths, which canceled each other to keep the rate of natural population increase quite low, the death rate was dramatically reduced after the Second World War with the advent and spread of modern medicine. The birth rate has also declined, but not nearly as much. This difference between birth and death rates has accounted for the more than doubling of the nation's population in the third quarter of this century. (The death rate now stands at about 7 per 1,000; the birth rate, at about 35 per 1,000. Subtracting the death rate from the birth rate reveals the rate of natural increase of 28 per 1,000, or 2.8 percent annually. Incidentally, dividing the annual rate of natural increase into the number 69 tells the number of years in which the population would double in size. For Malaysia, the doubling time at the present rate of growth is just under 25 years.) Associated with these demographic changes is a change in the age structure of the population. Instead of having roughly comparable numbers of people in each five-year age cohort, as was the case when birth and death rates were previously similar, there are, because of the sudden disparity between birth and death rates, many more Malaysians in younger age groups than in older age groups. At present, nearly half the population is under the age of 15.

Ultimately, the birth rate will come down to more or less the same level as the already reduced death rate. When this distant prospect occurs, the country will have completed its demographic transition from high birth and death rates to low birth and death rates. The speed at which the birth rate in fact declines will determine the rate at which the population will continue to grow. If the birth rate declines slowly, the population will grow rapidly and towards a higher total. If the birth rate declines

rapidly, the population will grow more slowly and towards a lower total. In addition, if the birth rate declines rapidly, those presently in the under-15 age group would, as they mature into the productive age years (that is, from about 18 to 55), be replaced by fewer young people. By the end of this century, therefore, a far higher proportion of the population than is the case today would be in the productive age groups than in the non-productive age groups. But no matter what happens to fertility patterns in the next few years, whether these drop to zero or bounce to record highs, the number of people in the productive age groups at the end of the century will be about the same. What will be different are the proportion of people in the productive age groups, the number of people dependent on them, and the quantity of services demanded by those in the dependent age groups as they themselves move into the productive age groups, but are unable to be productive.

There are two ways of looking at the future growth in Malaysia's population. One view holds that the faster this growth is and the more people there are, the greater will be the capacity of the economy to deliver the goods and services people desire. The contrary viewpoint emphasizes that this capacity will be greater if population growth is slower and if there are not so many people.

The first view stresses the virtues of sheer numbers. The more Malaysians there are, the better the country will be able to defend itself militarily. This is the traditional view of population as a resource. If a country has to engage in war, it will have a larger number of males to throw against the enemy, and the number surviving will still be sufficient to carry on with the business of society. Similarly, the more Malaysians there are, the larger will be the domestic market, enabling economies of scale and ensuring continuing growth, which in turn will provide additional employment opportunities, still more consumption, and an even larger market for domestic production in a wonderful, self-generating, continuous process. This, in essence, is the economic view of population as a market. Even if there are not enough jobs created in industry for this growing population, it is felt that there will still be enough land available—in the Peninsula, but particularly in Sabah and Sarawak—to provide people with a basis for earning their living.

The second way of looking at future population growth

emphasizes the quality of the population, not its quantity. Excessive population growth is seen to negate many of the positive effects of economic growth. This negation process becomes more evident when population growth and economic growth are separated into rural and urban components. In virtually all developing countries, economic growth is greater in the urban sector, and population growth (arising from natural increase, not migration) is greater in the rural sector. Thus, even though the total Malaysian population may be growing at 2.8 percent a year and the GNP at the annual rate of five or six percent in real terms, the natural increase of the population is highest in rural areas, and much of the economic growth is attributable to urban-based activities. The effect of this is that rural population growth negates much, if not all, of the rural economic growth. The movement of people from rural to urban areas eases this effect only somewhat, because migration is faster than the capacity of the urban economy to absorb people, yet too slow for growth differentials to be opened in the rural economy. This process permanently impoverishes the rural poor and creates a new class of urban poor. Given these realities, it is felt that if fewer people were added to the populace in coming years, the chances of having more people climb out of the pit of poverty would be substantially increased.

Other advantages are seen as stemming from a reduced rate of population growth. Demands on the land would be reduced, as would the demands on government to deliver services. In the first instance, efforts could be made to improve productivity, and in the second, to upgrade quality. It would not be necessary, because of the demands of quantity, to run fast just to stand still. And although a rapidly growing populace makes many production activities viable, a slowly growing population may do the same, perhaps to an even greater extent. With a lower rate of population growth, there would be fewer people in the future than would be the case with a higher rate. If fewer people are added to the populace in coming years, the rise in per capita GNP will be faster, as will the rise in overall living standards. Because individuals would be better off, a larger portion of their disposable income could go into consumption beyond the basics of food, shelter, and clothing. Thus, although the number of people constituting the domestic market would be smaller, their purchasing power would be at least the same as that of a larger

populace and possibly much greater. Compared to a more rapidly growing populace, it may well be that they would be in a position to consume a larger absolute amount of manufactured goods and increase commensurately the viability of many manufacturing operations. And as they prosper, so also would they increase the propensities to consume and to save, and these savings would bring additional benefits. In addition, the higher per capita delivery of medical and educational services would result in a healthier and better-equipped populace and make possible a number of other gains. The chief social effects would be a more equitable distribution of income and the reduced requirement to impose tight, centralized controls to ensure adequate capital formation. Finally, by keeping down the population growth rate, the numbers of jobless, landless, and hopeless would be reduced — creating a condition which substantially increases the ability of a democratic system of government to survive and the capacity of the economy to cope with the demands placed upon it.

It is inevitable that there will be many more Malaysians at the end of the century than there are at present. The critical question is: How many more? Depending on the changes in fertility patterns, there will be somewhere between 20 and 24 million. The impact on the nation of achieving the higher figure would be deleterious, mainly because these four million additional people would not be neatly distributed through the socio-economic structure. They would be at the bottom — poised to demand jobs that in all likelihood will not exist, land that will not be available, and services that cannot be provided. Consequently, they would be unable, through no fault of their own, to contribute to the product of the national economy. Even so, virtually all businessmen would prefer to see the higher population figure achieved. They see the populace as a market for their goods: the more people there are in the country, the greater will be the demand for products and the opportunities for profit. They also see population as a resource: the more people there are, the larger will be the number of unemployed and the lower will be the costs of labour. Many politicians as well would prefer to see the higher figure attained, albeit selectively. They see population as a constituency: the more people there are in their communal group, relative to those of other communal groups, the greater will be the number of potential votes to put or keep

them in power. Even the general populace would prefer, if somewhat unwittingly, to achieve the higher figure, feeling that there is some safety and strength in numbers, whether nationally or communally, and ignoring the fact that Malaysia's population in the year 2001, whatever its size, will be dwarfed by the 250 million Indonesians and the 75 million Thais. They also ignore the fact that many more Malaysians would, simply because of their numbers, be shackled to conditions of poverty with little hope of escape.

Few Malaysians think about the rate at which the populace is growing. Fewer still think about the implications this rate has for programmes designed to eradicate poverty and restructure society. Nevertheless, a small but growing number of politicians and government planners recognizes that by having 20 million Malaysians in the year 2001, not 24 million, it will be more possible, albeit still very difficult, to educate them, find them jobs and land, deliver them services and goods, and generally increase the satisfactions of life relative to the dissatisfactions, preserving thereby the stability of government and the prosperity of the economy. They feel that if the higher figure is achieved, the requirement to provide services to the poor and unemployed would compromise the delivery of services to the more productive sectors of the economy and result in economic stagnation. At the same time, the smouldering dissatisfaction of those locked into poverty would severely challenge the democratic process and require stringent authoritarian controls.

The likelihood is that the government will pay far less heed to this festering problem than it might, that the general populace will continue to be seduced by rhetoric which says that the country is large and the population is small, and that the population of the country in the year 2001 will be nearer 24 million than 20 million. Only then, too late, will it be realized that the welfare costs associated with supporting vast numbers of poor in the first decades of the 21st Century, that the political costs of having high numbers of unemployed and dissatisfied citizens, and that the economic costs of having to deflect resources from productive sectors to non-productive welfare maintenance are all seemingly insurmountable. The problems just described will not be perceived in terms of there being too many people to whom goods, services, and opportunities must be delivered. Nor will these be perceived in terms of benefiting businessmen, politi-

cians, and urban elites, while neglecting the interests of the common man. These problems will instead be perceived in terms of the economic system's inability to deliver. Malaysians may not think they have a population problem today. Indeed, they are in a far better population resource situation than many of the world's developing nations. But if this resource is not properly attended to and if the expectations of the populace are not mitigated, a large segment of the populace will become a severe liability that will be extremely costly—politically, socially, and economically—to transform into an asset. This transformation may even become impossible. Such a prospect makes the present deficiencies of the country's population policy (almost a non-policy inasmuch as it is weakly couched and feebly pursued) appear even more glaring.

Instilling confidence

One essential ingredient in the future success of the Malaysian economy is confidence, an elusive intangible that must be fostered in the face of increasingly chaotic economic conditions. The economic potential of the country is great, but so also are the problems associated with managing the economy. The ways in which this potential is realized and these problems are resolved will condition the confidence that foreign and domestic investors, the government, and individual Malaysians have in the capacity of the economy to provide what they require. Confidence is a subjective perception. It is not a logical, rational conclusion. The basic factors affecting confidence are the security of the nation, the continuing growth of the economy, the solubility of major economic problems, and the perceived sensibility of government intervention in the economy, particularly with regard to the degovernmentalization of public enterprises and the eventual lifting of some of the preferential opportunities for Malays.

The changes in government in Indochina have reawakened speculation about the applicability of the domino theory to political affairs in Southeast Asia generally and Malaysia in particular. The rigid pursuit of socio-political objectives by the government and the concomitant politicizing of economic affairs—notably through the Petronas Act, the Industrial Coordination Act, and the rapid expansion of public enterprises—have made many private investors wary. They are wary of the

relentlessness with which these objectives might be pursued in the future and concerned about the implications these will have for the future conduct and viability of private business. The recent growth of public sector involvement in undertakings normally reserved for the private sector has, in addition, raised questions about the capacity of the bureaucracy effectively to support the private-sector enterprises. The appearance of inflation as a new feature of economic life, coupled with the global recession precipitated by the oil crisis, has demonstrated the fallibilities and flaws of the international economic system and brought into question the probability of high rates of continuing growth. Added to these circumstances are the perceptions of sector interests which on the surface must compete within the domestic economy. The successes of one sector are seen to compromise the interests of another, and competition thus arises—between foreign and domestic interests, between public and private interests, between urban and rural interests, between agricultural and commercial-industrial interests, and between Malay and non-Malay interests. Balancing these competing forces to ensure that gains of one sector are not seen to compromise the interests of another sector is a very tricky process.

The effects of declining confidence are cumulative and, because bad news travels faster than good news, the effects are difficult to halt, let alone reverse. The reduction in the number of initial inquiries and actual entries of foreign investors in Malaysia during the mid-1970s has been attributed to the perceived instability of the regional political situation and to the perceived recklessness of official policies towards foreign investment, not to the equally significant global recession. When conditions are novel or uncertain, businessmen are slow to become investment pioneers, preferring to wait and see. Even though global economic conditions have since improved, those who invest in Malaysia in the later 1970s do so only with the objective of short-term profit-taking and a four-year payback on their investment, not with the objective of long-term growth and return. This pattern limits the amount of capital injected into the economy and prejudices the kind of ventures undertaken, thus compromising the possibilities for establishing stable growth conditions. The flight of non-Malay capital and professionals from the country arises not so much from the absence of present

opportunities as from the perceived absence of future prospects. This, again, is attributed to the perceived instability of the region's political situation. In fact, it is equally due to the present education and employment policies and the non-delineation of the future plans for altering these policies. The non-Malays will put up with a period, even a long period, of institutional disadvantagement, if there exists a glimmer of advantageous light at the end of the economy's transformational tunnel. They are mainly concerned about the implications of present policy for the future possibilities of their children. Because of the ambiguity surrounding the nature of future policies, the non-Malays can assume only that their condition will not improve substantially, or even stay the same. But the most severe effect of declining confidence is the institutional reluctance and incapacity to take risks and respond rapidly or even adequately to changing economic realities. The bureaucracy gets locked into the myopic pursuit of socio-political objectives; the private company gets locked in the pursuit of short-term profits to the exclusion of long-term growth possibilities; the individual gets locked into the predisposition to consume, not to save or to invest. People enjoy things while they can, for the present is more certain than the future. The combined effect of these attitudes is the failure to pursue numerous opportunities which could contribute to the long-term growth and stability of the economy.

Because confidence is so easily punctured, instilling confidence and maintaining it over the long term are not simple tasks. But both are imperative. The opportunities for economic prosperity in Malaysia are great, but unless the adaptability of the economy to changing conditions is increased, these will not be realized as fully as they might. An atmosphere of confidence is required. For such an atmosphere to be engendered, three things are necessary. First, there must be more communication among the various sectors of the economy — communication regarding the threats to national security, the intentions for further government intervention in the economy, and the position of non-Malays in the economy. Rumour and the manipulation of public information must give way to candour. Second, there must be a conscious depoliticization of all economic undertakings to eliminate present dichotomies: us versus them; Malays versus the non-Malays; and Malaysians versus the foreigners. Economic

nationalism and communal chauvinism must give way to the conscious pursuit of technical efficiency and economic development, enabling these to facilitate the achievement of socio-political objectives, not be impeded by them. Third, there must be a greater capacity on the part of the government and the bureaucracy to respond to surprises, accidents, and changing conditions. Competence must replace the arrogance that arises when institutional insulation subverts accountability for performance. Rigid adherence to the status quo must give way to the ready abandonment of mechanisms and programmes, if these are untenable, and to the readiness to experiment with things that might work better.

Perhaps the greatest source of present optimism, hence confidence, is that the country today is basically well-managed, that investments are paying off, that people are reasonably satisfied with the system and are not too upset with the distribution of income. And because nothing succeeds like success, the successes that can be measured in national, not sectoral, terms should be celebrated. At the same time, failures should be admitted and met with a willingness to change. There is much to warrant confidence; what is important is to bring this to light. Things could be much worse. The country, in its efforts to establish a solid economic base and attend to socio-political matters, is doing well in most areas and is not substantially behind in anything major. The economy is industrializing, the Malays are taking part in this industrial growth, and the vulnerability to rapidly changing external conditions is declining. In comparison to many other industrializing nations, Malaysia is fortunate. Problems—political instability, rampant population growth, foreign exchange deficits, requirements for capital—which could be pressing are not, and the economy is basically healthy. This is not to say that everything is going perfectly and that many problems, like those just mentioned, will not crop up in future. The country must try to do better what it is already doing, and it must try to anticipate and solve problems as it goes along, not create new problems. Presumably, this will be easier and more effective if, as the arguments in this chapter have indicated, production conditions are optimized, if economic independence is rationally pursued, if constructive relationships are established with foreign economic interests, if more areas of consensus are drawn among competing domestic sectors, if

rural-urban disparities are kept to a minimum, and if the expectations of the general populace are mitigated. Confidence will then follow naturally, for it will be based on solid foundations, not on flimsy superstructural mechanisms that are subject to sudden change. With the economy undergirded with sound and stable conditions, Malaysia will be better enabled to deal effectively with the chaotic external and domestic conditions that seem certain to be a regular feature of economic life in the future.

The continuing inquiry

• Is development the appropriate model for Malaysia's economy in the future? Does not the pursuit of this model perpetuate Malaysia's dependence on the industrial countries and make impossible substantial improvements in the life of the common man and woman?

• What is the end-point of the development process? Or is it to be a continuous accumulation of more and more?

• Does the perceived requirement for stability in fact impede the process of economic development, which development necessarily implies change, and which change necessarily implies instability?

• Is diffusion—from developed to underdeveloped countries and from modern to traditional sectors in Malaysia—likely to take place? Is the prevailing trickle-down theory applicable to societal conditions and goals in Malaysia, or does it encrust the existing pattern of elitism?

• What gaps exist in domestic inputs and outputs? What are the costs associated with narrowing or bridging these gaps? In what order should these gaps be narrowed or bridged, based on a cost-benefit analysis?

• What are the existing impediments to the mobility of productive inputs and outputs? Based again on cost-benefit analyses, which of these should be eliminated at least cost and greatest benefit?

• If a dollar invested in Malaysia produces a 25-30 cent increase in GNP and a dollar invested in Australia produces a 2-3 cent increase in GNP, why is Malaysian capital flowing to Australia? Hedging accounts for some of this, but what are the regulatory and institutional disincentives to investment in Malaysia that result in heavy outflows of domestic capital?

• What should be the national strategy for downstream production of primary commodities and natural resources?

• Will the future role of the Malaysian entrepreneur reside in services or in production? Services have a lower threshold of entry—in terms of capital, labour, and technological resources—than production which is fast being taken over by managers, specialists, and technocrats.

• What services might be developed to enable and incite more people in Malaysia's human resource pool to be more productive? What services might be developed to increase the mobility of inputs and outputs? What are the parasitic services that accomplish neither of these things?

• What steps can be taken to accelerate the transfer of service capabilities from the industrial world and facilitate the development of the domestic public and private services sector? What is the rank-ordering of services that should be developed?

• One obvious area for services development is the adaptation of organizational forms to existing institutions, an adaptation which is essential for continuing development. How can the country make the transfer from the personal organization—from the family business or the *kampung*-like offices in the bureaucracy and public corporations—to the impersonal organization? In most cultures, it is difficult for people to feel loyalty to something impersonal—to a bureau, department, or corporation—but this is absolutely essential for continuing development, and it can only be developed domestically.

• What are the inevitable external dependencies? What are the possible independencies? What are the desirable inter-dependencies? What are the costs and benefits of achieving conditions of independence and interdependence for any, of these activities or sectors? What are the costs and benefits of continuing with the dependent condition in these same activities and sectors?

• What are the main subjects of disagreement between the public bureaucracy and the private sector, whether domestic or foreign? To what extent might certain of these disagreements be reduced by simple communication?

• How might government enlist, not exact, the support of the private sector in helping to achieve the New Economic Policy's primary objectives of eliminating poverty and restructuring society?

- How much of the economy do the Malays really want? How much will they really settle for?
- Can the experience of other countries, say the United States with its black entrepreneur programmes, be brought to bear on the efforts of government to increase the number of Malays in the private commercial and industrial sector?
- What happens if domestic, regional, or international conditions make it impossible for the economy to grow, for planned economic developments to occur, and for the socio-political programmes fuelled by economic prosperity to be pursued? Will social and political objectives be put in abeyance, or will existing policies continue to be pursued such that the non-Malays see their opportunities eroding further, not merely stagnating? It is assumed that the government's priorities to eliminate poverty and racial imbalances are necessary to hold society together and enable the continuation of an orderly context for economic endeavours. Is this possible only under the growing-pie conditions of having the economy grow steadily and at fairly high rates.
- What will be the effect on the economy of rising tin prices make it economically feasible for the industrial countries to develop inexpensive processes for recycling tin? What will be the effect if hydrogen fusion, or some similar new energy process, reduces the demand for petroleum? What will be the effect if there is a substantial drop in the cost of feed-stocks for synthetic rubber production?
- What are the costs and benefits—social, economic, and political—of the major changes envisioned for the economy? How will certain of the objectives—to place 30 percent of corporate wealth in Malay hands, to restructure society, to eliminate poverty, to industrialize—be operationalized? What is defined as poverty? How is society to be restructured? How is this 30 percent to be placed in Malay hands?
- What things can be done to improve Malaysia's negotiating position with the transnationals and with other national governments?
- What should Malaysia's strategy be regarding the transnationals?
- What manufacturing activities in Malaysia are rendered transitory by virtue of their being competitively advantageous in terms of labour costs alone? How can the competitive advan-

tages of these activities be increased in other ways to reduce their transitoriness?

• What would be the effect on the Malaysian economy of the entry of the People's Republic of China into light manufacturing activities for export to international markets?

• What are the prospects for economic cooperation among ASEAN countries, and what is a reasonable timetable for their realization? What are the prime impediments to this cooperation? How fragile will this cooperation be; in light of the experience of the European Economic Community which comprises nations having economic conditions very different from, and perhaps more compatible than, those of the ASEAN nations?

• What are the potential areas of economic cooperation and opportunity with Singapore? With other ASEAN countries? With other developing countries? With certain of the industrial countries?

• What are the present impediments to effective bureaucracy? What are the likely future impediments? What institutional structures might be created and developed to increase the areas of consensus about economic goals and means between the bureaucracy and the businesses operating in the country? Between the private sector and the public sector? Between the bumiputras and non-bumiputras?

• Is a consensus about economic goals and means restrictive and even counterproductive?

• What are the government's future intentions regarding intervention in the economy? Presumably this will be tied to the continuation of certain conditions and the achievement of certain objectives. What happens if these conditions do not continue and these objectives are not achieved?

• One justification for the proliferation of public enterprises is that they can embark on activities from which the private businesses shy away. What is the justification for public enterprise activities which use their institutional advantages to steal the markets of existing business and compete with, not complement, them?

• The primary thrust of the government's programmes to reduce identification of ethnicity with economic function has been to get Malays out of agriculture and the bureaucracy and into private business. What is being done and what might be done to

get the non-Malays into agriculture and the bureaucracy?

• What models should be followed for the effective organization of labour, such that it works with, not against, business and government? How can future labour problems be anticipated and headed off before these become acute?

• Given present plans and patterns, what is the likely future of the rural sector? To what extent will the existing disparities between the urban and rural sector — in terms of services, opportunities, and so on — widen in the future? What activities offer the greatest prospects for agricultural modernization and the development of non-agricultural employment opportunities in rural areas?

• What is the Gross Urban Product? The Gross Rural Product? How are per capita GUP and GRP likely to change, absolutely and relatively, over the rest of the century? How much should growth in the urban manufacturing and commercial sector be curtailed to enable development of the rural agricultural sector?

• How many Malaysians should there be in the year 2001? When and at what figure should the Malaysian population stabilize? The answers will differ according to the criteria adopted: simple extrapolation of existing figures; desired number above the poverty line; capacity of the government to deliver services; capacity of the productive sector to provide jobs; capacity of the land to absorb people; propensity of the populace to consume and save. By combining the figures derived for individual criteria, it should be possible to weight the criteria according to their importance and arrive at a single optimum figure. If this differs from what seems likely, what can be done to come closer to the optimum figure, if it is in fact deemed worthy of achieving?

• If there are 24 million Malaysians in the year 2001, not 20 million, to what extent will this increase the numbers of unemployed and underemployed, the amounts that must be spent on education, health, and other social services, and the unlikelihood of there being insufficient public capital for investment in services and in the productive sector?

• Future population growth can be an asset or a liability. What is required to ensure that it is an asset? What is the certainty of these requirements being met?

• What fosters confidence in the Malaysian economy today? What undermines confidence?

The Satisfaction
of Individual Needs

The needs of individual Malaysians are remarkably diverse. So are the capacities of individual Malaysians to satisfy them. The needs of a *padi* farmer differ from those of an economic planner, as do those of an *imam*, a housewife, a businessman, a teacher, a student, an urban planner, a consumer activist, or a prime minister. Some needs are common to all Malaysians; other needs are uncommon. Some needs can be satisfied by individuals themselves; other needs can be satisfied by the individual only with assistance from society. The satisfaction of needs also has a quantitative aspect: what is essential for one Malaysian is desirable for a second, and luxurious, or even excessive, for yet a third. To be satisfied, one Malaysian needs only to have a simple wooden dwelling, but another must have a concrete house equipped with all the modern conveniences; one needs a bicycle, but another must have a chauffeur-driven Mercedes Benz; one needs to obtain the L.C.E., but another must have a second degree from Oxford; one needs to cast a vote once in five years, but another must have access to the offices of the nation's top decision-makers.

Among the needs that are common to all Malaysians are those for basic services that can liberate individuals from conditions that make it difficult to participate in the nation's prosperity. Critical here are the availability of and accessibility to water, electricity, transport, communications, health care, education, security, and recreation facilities. All Malaysians need these services. Only society as a whole, through government, has the

capacity to marshall the necessary resources to deliver these services effectively. Their provision to all Malaysians must therefore be one of society's fundamental objectives. Equally common needs are those for certain basic rights of individuals — rights which, if suppressed, can kill off human desire, hope, and initiative, but which, if protected, can compensate for much of the despair in even a seemingly hopeless situation. Critical here are rights to freedom of expression, religion, and culture; rights to representation and participation in decision-making, and rights to information that is relevant to daily life and to the direction and progress of society. Only society as a whole, again through government, has the power to extend and ensure these basic rights. Their protection for all Malaysians must therefore be another of society's fundamental objectives.

For Malaysia to flourish, there must be wider opportunities for all Malaysians to satisfy their needs for social, political, economic, and intellectual advancement. A societal context should be created to ensure that all Malaysians can at the very least achieve an essential level of satisfaction of common needs. This same societal context should nevertheless make it possible for those who are individually able to satisfy their needs, whether common or uncommon, at desirable or even luxurious levels, so long as this does not prejudice the pursuits of others. Gaps in the satisfaction of individual needs are not to be narrowed by holding back those who already are doing well. Indeed, these gaps will probably widen over time. To be sought is greater equality of opportunity for advancement, not greater equality of advancement itself. Greater equality of advancement will follow later for those who want it and are willing to work for it.

The first priority of Malaysian society must be the satisfaction of common needs that can be fulfilled by the individual only with assistance from society. It can be assumed that the satisfaction of these common needs is so basic to existence that it is worthy of society's persistent pursuit to give all Malaysians the opportunity to satisfy them. It can also be assumed that spreading the opportunities to satisfy these common needs will be a full-time undertaking of society for some time to come, necessarily precluding the pursuit by society of other, perhaps more frivolous, needs. Uncommon needs and needs which can be satisfied individually must be the responsibility of individuals

themselves. Society should step in and assume partial or total responsibility only when special circumstances make it impossible for individuals to satisfy their most basic needs, as for the destitute who are unable even to feed, clothe, and house themselves. The common expectation, nonetheless, is that all services and rights should be delivered freely by the government to the individual on a platter. This attitude makes it extremely important to retain control over social benefits and the free handouts by society to the individual.

The effectiveness of society's efforts to deliver services is further compromised by two prevailing assumptions: that whatever is done is justified because the demand for these services is so vast; and that whatever is not done is excused because the resources of society are limited. Such thinking results in a shotgun approach to services development and forestalls both the determination of priorities and the setting of specific objectives in accord with actual requirements. Similarly, the effectiveness of society in ensuring individual rights is compromised by another prevailing assumption: that the requirements for public order militate against the extension of rights. Thinking like this results in the arbitrary, unnecessary, and often debilitating denial of basic rights. To counter these tendencies, there must be unbiased assessments of what needs are common and uncommon and of what levels of satisfaction of common needs are essential, desirable, and luxurious. There must also be objective assessments of social justice—of whether society is concentrating on lifting all Malaysians to essential levels of common need satisfaction, or is instead lifting only some Malaysians to desirable and luxurious levels of satisfaction, even for uncommon needs. It is the responsibility of the individual, and of the collective of individuals, to ensure that such assessments indeed govern society's efforts.

Basic services

If the resources available to the nation were infinite, it would be possible to provide food, housing, and clothing to every Malaysian, to deliver water and electricity to every household, and to bolster substantially the quantity and quality of all personal services. But the resources of the nation are far from infinite. Hard choices must therefore be made about the services to be delivered—choices about what these services are to

comprise; who is to receive these services, and in what manner these services are to be provided.

What services are basic? In drawing a base line, there probably would be little disagreement that basic services to the household comprise piped water, electricity, waste removal, transport, and communications. Similarly, there probably would be little disagreement that basic services to the individual comprise adequate health care, education, security, and facilities for recreation. Malaysia's overall record in the delivery of these services has been quite good. Numerous circumstantial differentials nevertheless give rise to certain inequalities. While people in the federal capital talk about potholes in the streets and the desirability of building a mass transit system to ease commuting and reduce air pollution, people in Sabah's interior talk about being two or three days' walk from the nearest road. While people in the federal capital talk about whether they should go to the Pantai Medical Centre or Tan Chee Khoon's clinic for the treatment of a minor ailment, people in upriver Sarawak talk about whether an ailing village elder can survive the journey to Kuching. While people in the federal capital talk about whether they should send their children to England for their secondary education, people in Kelantan talk about whether their children should attend secondary school at all. Such inequalities exist in every country, but this does not mean these should be tolerated or ignored.

The notions of economic return and social justice compete in the determination of the content and recipients of services. Most governments, presented with the choice of spending millions to improve a road traveled by hundreds of thousands or spending equal millions to construct a road that would be traveled by only thousands, would choose the former. Most governments, presented with the choice of spending a large sum to expand urban health facilities that serve a few hundred thousand or spending a similar amount to establish new rural health subcentres for a much smaller number, would again choose the former. The returns are thought to be greater per *ringgit* spent, and the question of social justice, or injustice, does not enter into the calculus. The result is a strong bias for the best services and servicers to be developed in urban areas, where the marginal and per capita costs of delivery are lower and the number of people served is higher (even though two-thirds of the populace

presently reside in rural areas). In addition, urban services are often raised from essential levels to desirable and luxurious levels, while services in many rural areas remain below even the essential level.

This emphasis on economic return is misplaced for two reasons. First, the improvement in urban services, while seemingly offering greater return at equal or lower cost than comparable rural investment, is perhaps offering less return than is supposed. For example, increasing the kilowatt-hours of electricity or the gallons of water per household from essential to desirable or luxurious levels does little to improve the productivity of individual households. To be sure, life is more comfortable if the air-conditioner is left on all day and the garden will be greener if the water sprinklers are left on. But this does not necessarily increase the effectiveness of personal endeavours in such a household. Similar arguments could be adduced in the case of hospitals, schools, and other personal and household services. Second, the improvement of rural services, while seemingly squandering scarce resources that could be more effectively applied in urban areas, could on closer examination offer substantially more significant returns than are supposed. By lifting services to the essential level in rural areas, the effectiveness of individual endeavours should rise considerably. The inclination, nonetheless, is to concentrate on urban services, largely because the impact of rural services is underestimated, if it is properly understood at all. What difference does it make if a rural housewife has a tap in her kitchen or a communal tap a few hundred yards away? What difference does it make if a rural house is lit by kerosene lanterns or electricity? The pace of rural life is slow anyway, and these improvements would make little difference. This, at least, is the conventional wisdom.

Malaysia is doing well in extending basic household services to more and more people, perhaps better than any other Southeast Asian country with a large rural component to its populace. The bias is urban, to be sure, but the thrust of the New Economic Policy and the Malaysia Plans is to get hard services, the household services, to more and more rural dwellers. Malaysia is *not* doing as well as it might in extending basic *personal* services to more and more people, even though in this, too, it is probably doing better than any other comparable Southeast Asian country. Conventional wisdom again has it that the first thing is

to get basic household services to those in rural areas. Personal services actually available in rural areas can be developed later. In the meantime, the rural populace can come to urban areas for the personal services they require—for health care, education, security, and recreation. Because of the high correlation between services and income, such reasoning may be erroneous and unfounded. Other variables intervene, of course, but the impact in rural areas of services on income, and indeed on need satisfaction generally, may be much greater than is suspected.

Today, the indicators of need satisfaction in Malaysia are primarily economic: per capita GNP, income distribution; percentage of Malay ownership of share capital in limited companies; number of ethnic group members in the manufacturing work force, and so on. None of these has much meaning for those not benefiting from the nation's prosperity and development, and all have dubious meaning even for those who are benefiting. The indicators are, in addition, aggregate. That is, they are nationwide. As a consequence, monitoring and extolling GNP growth, payments balances, income patterns, and changes in corporate ownership can give a false sense of satisfaction to economic planners and political leaders, and an immediate sense of frustration to the common man. Thus it comes about that, although one government objective is to eradicate poverty and although many government programmes are defined as being in pursuit of this objective, the levels of services necessary to lift the poor from the impoverished condition are not clearly defined. This ignorance makes it difficult, if not impossible, to evaluate the success of programmes designed to eradicate poverty and to understand whether what is pursued is being achieved. It would be unfair to leave the impression that this is not in fact the government's implicit aim, but it can be said that the government is not as attuned to these finer distinctions as it might be.

Even though per capita GNP and income distribution serve as rough indicators of socio-economic progress, life cannot be evaluated in these terms alone. Alternative measures of the satisfaction of basic individual needs must therefore be developed to assess properly the satisfaction of individual needs for basic services and to know how well Malaysia is or is not doing in services development. These measures must apply equally to those participating in the country's prosperity and to

those not participating, and be understood not only by those directing this development, but also by those experiencing it. Such measures would include indicators of social justice that refine existing figures for income, employment by sector, per capita GNP, per capita gross national expenditure on each of the many services, and per capita educational attainment by breaking these down for males and females, young people and old people, urban dwellers and rural dwellers, Selangor residents and Kelantan residents, and Malays and Chinese and Indians and Ibans and Kadazans and so on. Individuals of different sex, age, ethnic group, and locale must know where they stand and whether and why life is improving or stagnating with regard to the delivery of basic services. Changes in the degree of attainment for each group can be assessed over time so that all concerned can know the extent to which things really are improving, and for whom. Problems will be encountered. Some of these statistics exist, but are as yet insufficiently broken down. Most of the data required for these measures do not now exist, will be difficult and costly to compile, and will take a long time to develop. Another difficulty is that governments typically are afraid of the politically unsavoury information indicators like these might reveal. But this is all the more reason for such measures to be demanded by the public. At the very least, such measures would indicate where social injustices exist and, hence, where the priorities should lie.

Perhaps the most difficult dilemma concerning the provision of basic services is that no matter how much is done, there is always more to be done. This makes it imperative to continue to do well what is already being done, so long as this is demonstrably beneficial, and to begin doing fresh things at least cost and greatest social benefit to all Malaysians, not just some. To facilitate this process, clearcut policies and strategies must define the action imperatives. If human, capital, and other resources are to be deployed in as effective a manner as possible, base levels of acceptability and desirability must be determined for each of the human resource services. These levels should become the target for future action. As targets, these could set off the inadequacies of the present system and present a series of alternatives for the selection of intermediate-term priorities. This entire process must, of course, be closely matched with an analysis of what, in fact, is required, not of

what is intuitively thought to be required. As has been indicated, this analysis can be undertaken only by separating common needs from the uncommon, by differentiating essential levels of services delivery from the desirable and luxurious levels, and by applying new measures of social justice.

Illustrative excursus on educational services

Of all the basic services, Malaysians seem to have the greatest concern for, and the greatest expectations of, education. This concern is well placed. By the end of this century, a higher proportion of the Malaysian populace will be involved in education than in any other single organized social activity. Insofar as people's minds are the nation's most developable resources—which is to say, a *ringgit* invested in education will probably continue to yield a greater return in national income than any other investment—education deserves all the attention it might be given. There nevertheless are few solid notions about how the educational system might better fulfill its mission. With regard to basic objectives, it is impossible to deny the validity of schooling all Malaysians up to a certain level, say Form III or Form V, or of attempting to prepare young people so that they can pursue gainful occupations. But this does not mean that the present ways of pursuing these objectives are the best ways. Nor does this mean that other educational objectives need be ignored or that attention to other objectives will detract from the achievement of present goals.

Critics of the Malaysian educational system see many intrinsic failings. Students complain that the curriculum is boring, that teachers do not make the learning process interesting for them, and that the entire system is geared to the production of university graduates and leaves little for those who do not survive one or another of the promotion points. Urban parents complain that the methods of instruction are producing subliterates who are incapable of abstract reasoning and the practical applications of theories. Rural parents complain that the schooling process destroys traditional values, particularly religious values, and gives students a series of attitudes which make it unappealing for them to return to life in the rural setting and style. Teachers complain that they are overworked and underpaid and that the selection process for promoting students

makes it necessary for them to prepare students only for examinations, even if this kills motivation and does little to prepare students for life in the real world. Employers complain that many L.C.E. and M.C.E. holders do not possess even the basic skills of reading, writing, and computing. And educational planners complain that poorly qualified teachers and below-par facilities, particularly in rural areas, make it impossible to deliver quality education to the rapidly growing numbers of school-age children. In short, the Malaysian educational system is like every educational system in the developing world.

Many people feel that, in addition to resolving present shortcomings, the educational system should be doing a broad range of other things as well. More than simply imparting basic skills, schools should impart values to today's youth and give them a sense of responsible ethics, religious morality, and citizenship. Schools are thus expected to take care of the moral and ethical socialization of young Malaysians, along with anything else the family and society seem incapable of transmitting. This, when the system has difficulty teaching students to read, write, and compute. This, when the schools are being asked to provide education for rapidly growing numbers of school-age children and, in the process, to somehow match the output of students precisely with the nation's manpower require-ments. The system obviously is hamstrung by some severe financial, curricular, and human constraints. The more that is attempted, the tighter these constraints will be. So, the system just plods along, trying to accomplish the minimum and leaving it to the resourceful few to lift themselves from the institutional morass. This is not to say that everything is bad about education in Malaysia. There is much that is good. But some things that are bad need not be. Presumably, certain actions can be taken to make the system more effective. As a first step in determining appropriate actions, distinctions should be made among what the educational system is in fact doing, what it purports to be doing, and what it might be doing.

What is the Malaysian educational system actually doing? The de facto purpose of education in Malaysia, however much the proponents of the present system may argue to the contrary, is to convert peasants into factory and office workers and have the best students continue on to university so that they can become bureaucrats, teachers, and managers. This was true of the British

system of education in the 19th Century, and this is the system adopted with few modifications in Malaysia. The method used for this is to herd students into barn-like structures, line them up anonymously behind desks, and keep them there for 10 or 15 years to teach them what educational administrators think they should be taught. Above all, students are to be instilled with labour discipline and taught to conform with predetermined models of thinking and behaviour. The education system thus promotes economic development by replacing traditional, pre-industrial attitudes and values with the industrial norms. The authoritarian structure in the classroom, with the all-powerful teacher, ensures that young Malaysians are followers, not leaders or even participants. The rote method of learning, whereby students memorize but do not manipulate materials, ensures that students learn only what the authorities want them to learn. Because students deal only with questions that have answers, they are permanently infantilized by the inability to think or reason for themselves. It is thus unsurprising that the products of such a system are against thinking, commitment, and involvement — precisely the malleable human material desired by office administrators and factory managers. This indictment brings into question the use of the term, education, which stems from the Latin *educere* (to lead forth). Are students being educated? Or are they merely being schooled?

If mere schooling is what is wanted, then the system of education should be left unchanged, except to expand sufficiently to ensure that manpower requirements are met. It should not be cause for alarm that little thought is given to the educational aspirations of individual students. The educational system is, after all, primarily economic in orientation, not social, political, intellectual, or personal. It may also be that the present system of education is consistent with the realities of society: if the academic environment were open and informal, only to have students enter a closed and formal world, this would subject students to too great a shock on entering the real world. The authoritarian structure of the classroom is thus not as bad as it might seem because students, particularly rural students, need structure instilled in their lives more than any other single thing. The rote method of learning is not as bad as it might seem, either. Up to a point, many students prefer to learn by rote, not by abstract reasoning. Creative, innovative, and

independent thinking may be required from some, but certainly not from all, so it is better to sacrifice these desirable traits in the few than to instill these in the many because of the disruptiveness that might ensue. Nor is the intense competitiveness of the examination process necessarily bad. Students need to develop a competitive spirit to increase their motivation, even though the absence of cooperation may be debilitating to society. Moreover, those who fail to survive promotion points will recognize themselves as failures and not expect or demand too much from society. All that is required, then, are some minor adjustments to the educational system as it presently stands. Two possible such adjustments, given the emphasis on rote-learning and examination-taking, would be to teach students better ways to memorize materials and cope with examinations.

But what does the Malaysian educational system *purport* to be doing? It purports to be creating a literate populace of individuals who possess the necessary skills to enable them to take up gainful occupations and who possess sufficient knowledge and information about their country to enable them to be responsible citizens. To some extent — but only to some — the system has been successful in doing just this. It has been less successful in rural schools than urban schools, in schools on the eastern side of the Peninsula than on the western side, and in the schools of Sabah and Sarawak than in peninsular schools. Part of the problem is that facilities and teachers are superior in urban schools and at higher levels of education, where allocations of government funds are much higher on a per capita basis. Motivation is another part of the problem. It is accepted worldwide that urban students are more highly motivated than rural students. Urban students are not inherently superior. They simply have better facilities and teachers and are placed in an educational environment more conducive to achievement. The rest of the problem rests with the fact that a rapidly growing school-age population makes it necessary to run fast just to stand still. This explains the almost exclusive attention devoted to teacher training and facilities expansion — efforts which can never supply the growing demand and which will continue to deny education to many young people. And so long as the system is not providing education to all those who desire it, there will be a ready excuse for continuing with the present curricula and for concentrating on the quantity of inputs

and throughputs, not the quality of outputs.

Although the problems encountered change beyond the primary level, the tried and true methods of primary education persist all the way up to technical institute and university level. This further militates against the realization of purported objectives. Authoritarian teachers continue to force subject materials down the throats of docile students — materials which prepare students for their next transition-point examination, be this the L.C.E., M.C.E., H.S.C., or a professional diploma or university degree. The examination-orientation of secondary and tertiary education in Malaysia is well-documented, and the blame for this falls on headmasters and teachers who seemingly resist all attempts to introduce variety into the curricula and their approaches to teaching. But are they really to be blamed? Headmasters are under pressure to improve student performance, and the sole measure for this performance is the transition-point examination. Teachers are under similar pressures, and even those who do want to give their students more than repetitive preparation for examinations necessarily succumb because of conflicting emotions. They know that if students do not pass the transition-point examination, the education of those students will come to an abrupt halt. If students do pass, there is still the possibility that they will be able to broaden their horizons later. The difficulty, then, is not with the headmaster, the teacher, or the student. It is with the means of selection for promotion past a transition point. The goal is not to have students acquire a broad base of knowledge and skills or be able to apply abstract principles in appropriate practical cases. The goal is to have them pass the crucial examinations. Insofar as the number passing these examinations is determined by the number of available places at the next level of education, not on absolute performance by individual students, the educational system has some built-in inequities and inevitable biases in favour of the urban student.

What *might* the Malaysian educational system be doing? Given the limitations of the entire educational system and the general dissatisfaction these have engendered, it may be appropriate to reexamine fundamental purposes and speculate about how these purposes might be translated into the delivery of better education. Four purposes crop up again and again as fundamental to any educational system:

- The educational process should instill in students the desire to acquire knowledge. Implicit in this are transmitting the pleasures of knowledge and keeping alive the motivation of students to learn.

- The educational process should inform students about the nature and structure of society and enable students, when they mature, to contribute to the solution of society's ongoing problems. Implicit in this are inculcating a social conscience and transmitting methods for effective individual contributions to society.

- The educational process should enable students to earn their livelihoods and to lead satisfying lives. Often, the two are intimately related, sometimes to the point of being indistinguishable. Implicit in this is giving students the basic tools to perform useful economic functions and to become self-reliant.

- The educational process should establish an educational and intellectual tradition, such that learning is seen not only as a tool, as many Malaysians seem to regard it, but also as an end in itself. Implicit in this is having all members of society recognize the value of knowledge and esteem the pursuit and determination of truth, not only in the academic setting, but throughout life.

Detractors of such ideal purposes argue that the sole responsibility of educational systems in developing countries is to give students the requisite skills to enable them to get good jobs — that all else is meaningless if students come out of the educational system and are unable to secure rewarding employment. To undertake more than this, they hold, would be to overtax an already heavily burdened educational system. This certainly is the posture adopted by the Malaysian Ministry of Education, and it may be true. But it might also be that the pursuit of some other fundamental purposes of education would enhance, not detract from, the possibility of having educational products get good jobs. This might even be done without increasing substantially the burdens on existing personnel and facilities. The process might also provide some satisfactions and tools to those who otherwise would not or could not get good jobs. What is done will depend on what are seen to be the basic purposes and actual capabilities of the system. But whether the purposes of education are limited to preparing students for a job

or broadened to embrace the four fundamental purposes outlined above, it seems clear that the *content* and *agents* of education should be broadened considerably.

In determining the optimum curricula for various levels of education, there must be some rethinking about what is appropriate and necessary. The major flaw with present curricula is that it is assumed that students, by being given numerous problems to solve, will learn thereby the ways to solve problems. They are not taught alternative ways to solve problems that take into account whether these are theoretical, hypothetical, or practical. A first priority for curricular expansion at all levels should therefore be to teach students how to solve problems. It is further assumed: that by having students read, they will learn how to write; that by having them listen, they will learn how to speak; that by having them appreciate numbers, they will be able to manipulate numbers; and that by having them study graphs, symbols, and charts, they will be able to make these same representations. Although these assumptions are valid to some extent, students today are not learning how to write effectively, speak articulately, manipulate numbers skillfully, or make useful graphs, symbols, and charts. Thus, half the educative process is being almost entirely ignored. In support of this conclusion, modern neuroanatomical research indicates an apparent specialization among different parts of the human brain for separate cognitive functions. For example, it seems that the part of the brain that handles listening is not identical with the part that handles speaking, even though these two parts interact when either is being done. This suggests a second priority for curricular expansion—teaching students not only how to integrate communications, but how to generate communications, something incidentally which could go a long way to improve basic integrative skills.

A third priority for curricular expansion deals more with content than approach. Although the fields of knowledge tackled at various levels of education have necessarily to be restricted, these need not be restricted to the few tight, and perhaps irrelevant, compartments of present curricula. Today, many students are taught many things which are indirectly, not directly, applicable to life. Thus, students learn about the importance of rubber in the Malaysian economy, not about the ways to tap and cure rubber or about the economics of rubber.

small-holdings; about the structure of government, not about
the ways to influence government; about the nature of a cash
economy, not about budgeting household income or securing
credit. The assumption, of course, is that individuals can
themselves make the necessary interconnections which are
appropriate to their particular circumstances. Although this may
be true in part (this has, after all, been the fundamental assump-
tion of western education) the effect of this approach on student
motivation is being ignored. Because every individual is
concerned with his or her way of life, how it operates, and how
one can improve in that sphere of life, motivation could be sub-
stantially increased by introducing subjects which are, to the
extent possible, directly related to life in society. Some of these
subjects would deal with the practical aspects of living—health
education, hygiene, sanitation, working and interacting with
others, household budgeting, the importance of savings, and the
like. Other subjects could deal with rural living to reduce the
urban bias of present curricula—palm oil, rubber, and *padi*
cultivation, market mechanisms, bureaucratic support agencies,
middleman operations. If the determination of curricula were
decentralized, still other subjects could deal with local issues
and concerns—local social and economic problems, the
organization of local government, the activities of village
development committees, and the like. All these subjects—
which students presumably are interested in, can relate to, and
know something about—could be treated in a way that transmits
the basic skills of reading, writing, and computing.

Because of the intrinsic resistance to change by
administrators, teachers, and even students, such curricular
revision and expansion will be a long-term undertaking. Today, if
something is not tested for, it is not taught. The corollary is that
if something cannot be tested for, it will never be taught. This
forecloses a great deal of knowledge and a great many subject
areas. It also instills in students an unnecessarily pragmatic
approach to learning: they will study only those things that will
help them pass a transition-point examination. Education, then,
is test-determined, not life-determined or career-determined.
Although it is assumed that tests indirectly measure what is
required for life, these in fact measure what is required for
getting a student into university. For those who do not get that
far, life is their examination, and a lot of Malaysians are not as

well prepared for life as they might be. As argued earlier, students are not to be blamed for this; nor are teachers and headmasters. The system itself is at fault, and it is doubtful whether this pattern can be turned around in the near future. Although changing the curricula is not an immediate prospect, it seems probable that another area of consideration — broadening the agents of education — can be initiated much more rapidly. This broadening might, in itself, make the necessary revisions of the curricula more possible and feasible.

One first step to be taken, before embarking on any programme to broaden the existing agents of education, is to intensify the efforts to teachers. The single thing holding back students, and hence the entire system, is their present ineptitude in basics. There must therefore be greater insistence that teachers do what they are paid for. Teachers must respect their students sufficiently to insist that students learn the requisite basic skills. The practice of passing on ill-equipped students to the next standard or form must be abolished. Teachers themselves know which students are equipped and which students are not. Yet, they wash their hands of the ill-equipped by passing them on to the next grade — an inexcusable practice that teachers justify by saying that they do not have the time to give personal attention to individual students and that problems of student motivation are beyond their power to control. Their rationales revolve around shortages of qualified personnel, and this is echoed by administrators at all levels.

If the number of teachers is institutionally limited, then education itself is institutionally limited. There are three ways to get around this. The first is by forgetting that teachers must have a diploma if they are to teach and by using less than qualified people for teaching basic skills, particularly in primary school. Far too much attention is devoted to a teacher's paper qualification, and this attention becomes more inapposite, the more basic the materials being taught. The skills being taught in the early grades are basic reading, writing, and computing — subjects which can be taught effectively by anyone who already knows how to do these things, if indeed they want to teach. It is far more important to have highly motivated people teaching than to have highly qualified people teaching, and there presumably are a lot of such people around who would be willing to work for pay substantially below the salaries of diplomatized teachers

There may even be people who would be willing to do this on a voluntary basis. A second way to circumvent institutional limitations is to have older students teach younger students. Both groups gain from the process. Older students profit from teaching, which is known to be one of the most effective ways to learn a subject well. Younger students profit from the personal attention and from having information dispensed in a way that removes the authoritarian barriers between students and teachers. This procedure has been experimented with in Malaysia with demonstrable success, but it has not been expanded sufficiently. A third way is to have students teach themselves. The most powerful agent of education is the individual. The most powerful method of education is self-discovery. Yet, both this agent and this method are being ignored. Students should be shown what they can do for themselves and given the tools to learn outside the formal educational context. They are not, after all, going to spend all of their lives in school. It seems that too much sanctity has been assigned to the traditional teacher-student relationship. It seems also that if the agents of education were broadened beyond the traditional, the burden on government might be reduced and the quality of outputs might be substantially improved. To give these new agents credibility, however, they would have somehow to be given institutional recognition and support.

Another way to broaden the agents of education is by the use of mechanical means. Teaching machines offer one possibility, but the very thought of them raises outcries of inhumanity and impersonality. They are not as inhuman and impersonal as they seem, for they do offer personal attention, however inanimate that attention may be. More importantly, they can give students instant feedback about what they are doing right and what they are doing wrong, about where their strengths lie and where their weaknesses lie. The inability of the present educational system to do precisely these things is perhaps its greatest shortcoming. Not only is the development of skills impaired by the absence of feedback to individual students, so also is the development of motivation impaired. Teaching machines thus warrant close examination. It seems probable that programmed learning developed in the West could be adapted to make these materials appropriate to the learning experience in Malaysia. It also seems probable, given the pattern of declining costs which accom-

panied the development of electronic calculators, that such machines will one day be within the budget of every classroom, if not every student. At present, however, such machines are too expensive and too dependent on software and maintenance.

The greatest immediate potential for mechanically broadening the agents of education resides with the mass media—radio, television, newspapers, and even posters. Of these, television has the greatest potential because of its widespread appeal. Yet, today, television in Malaysia is treated not as an educational tool for propagating knowledge, but as a toy for propagating amusement. This must change. Daytime programming, at present non-existent, could go directly into the classrooms; night-time educational programming could go directly into every home with a television set. Why give viewers wrestling when they can be given health, hygiene, sanitation, nutrition, and other useful subjects? The reason is that people clamour for entertaining programmes, and they will always watch an entertaining programme before an educational programme. This does not mean the two are incompatible and cannot be combined. To concentrate only on entertainment programmes, as is presently the case, is to throw away a golden opportunity.

Converting every television set, radio, and newspaper into an agent of education could go a long way to alleviate the present perceived shortage of teachers. For example, it would be possible to take the best teachers in the country and have them reach not 30, 60, or 90 students a day, but hundreds of thousands of students, plus hundreds of thousands of adults. True, mass-mediated education is even more authoritarian and even less interactive than classroom education. A television set or newspaper cannot, at the present level of technology, be asked a question and be expected to answer. But this one-way-ness would be more than offset by the extent to which the media would supplement the institutionalized (and limited) agents of education. People outside the institutionalized system—adults, dropouts, truants, and so on—could learn as well, enhancing not only their skills, but their appreciation for the value of knowledge at the same time. By so expanding the agents of education, it would be possible to expand the recipients of education without training a single additional teacher or building a single additional classroom. And by so expanding the

agents of education, the venue of education would be moved outside the classroom — a desirable goal in itself.

The debate surrounding education thus raises larger, fundamental questions. To summarize: What *are* the differences in what the system is in fact doing, what the system purports to be doing, and what the system should be doing? How closely related is what is delivered to what is required? Is the separation of services into essential, desirable, and luxurious levels being kept in mind? Are measures of social justice being applied to determine where the priorities should lie? Is the allocation of scarce government resources actually in accord with priorities which presumably are in accord with need? All these questions must be asked and answered if efforts to improve the delivery of educational services are to be effective. And because the debate surrounding education is analogous to the debate surrounding the delivery of services generally, these same questions must be asked and answered for all basic services — for health care, security, leisure facilities, transport, communications, water, electricity, and waste removal. Because there is so much to be done, what is done must be what is best in the context of government resources and capabilities and of individual needs for these various services. To accept the mediocrity of anything less would be to sacrifice the development of Malaysia's most important resource — the Malaysian people.

As important as *what* is determined to be useful in the improvement and expansion of educational and all other services is *how* these improvements and expansions are determined. If these decisions continue to be the purview of a limited number of administrators, serious mistakes will continue to be made and serious inequities will persist. This suggests the advisability of drawing more people — the users of services as well as their dispensers — into the services planning process to determine appropriate inputs. People demonstrate considerable wisdom — considerably more than is conventionally assumed — when they are asked to determine what is best for them and how this might best be delivered to them. Leaving aside the problem of unduly raising expectations, the more this is done, the less disparate will be the product from what is required and desired. The character of this determination carries the commentary from considerations of basic services to considerations of basic rights.

Basic rights

In going beyond the constitutional guarantees for freedom of expression, religion, and culture, few would argue about the right of people in a democratic state to participate in making official decisions which affect them. This is not to suggest, however, that there is general agreement over the manner in which this right is to be exercised. Because the decisions of government are numerous and often complex, the method adopted to enable this participation is representation. The populace at large selects representatives to protect and further their interests in such official bodies as local councils, state legislative assemblies, and the federal parliament. These collective bodies of representatives are charged with the responsibilities to determine the needs of the people and to see that government meets these needs to the extent it is able. It does not always work this way. Some of the imperfections of the present representative set-up in Malaysia have already been described in Chapter 3—the essentially ratificatory nature of the election process, the essentially autocratic nature of the decision-making process, and the intensely political character of many of the decisions which are in fact made, such that the minority is often better represented than the majority. There are other imperfections as well.

Representation in Malaysia, as in most democratic systems, is illusory. This is because important decisions are made by a relatively small number of people who frequently are out of touch with the concerns, sentiments, and needs of the people at the grass roots. Many of the persons supposedly representing the people, however noble the motives of some of them may be, are essentially urban, educated, and elitist. The higher they climb the ladder of status and wealth, the more distant they are from the people they purportedly represent. This distance of representatives from constituents is compounded by their distance from the meeting rooms of decision. Although lines of communication are assumed to exist among kampung, mukim, district, state, and federal levels of governments, these lines are usually strained and often broken. The locus of decision-making at federal level is the Economic Planning Unit, and that at state level is the State Planning Unit. Neither institution has much communication with the people directly affected by their decisions. These decisions therefore take on a character that is

paternalistic, unresponsive, and bordering on the autocratic. Even the communications between elected representatives and the planning bureaucracy are limited, and this significantly weakens what otherwise is a critical link. It may be that the representative chain has too many links — from the voter to the representative to the cabinet to the upper echelons of the planning bureaucracy to the intermediate and local officials responsible for implementing programmes and decisions, which brings us full circle back to the voter. Such limitations on the representational process imply that the populace, by electing representatives, has little influence over the decisions which affect them. This influence is further attenuated by national, communal, and special interests and by the prejudices of those in positions of authority — interests and prejudices which result in actions that often demonstrate ignorance of, and disregard for, local sentiments.

Malaysia's system of representation may today be illusory, but it is orderly. This may be the problem with it. It may be too orderly to enable it to be adequate. This suggests that some changes are in order, changes which, although building in a bit of disorder to the representative system, would nevertheless make it more responsive to the needs of the people at grass-roots level. But given the tenacity of precedent in the representative system, it probably is too much to hope that existing representational institutions can be revised quickly enough to match the needs and frustrations of the populace with regard to what has come to be assumed as a basic right — participation in decision-making which affects them. It seems unlikely in the near future that: representatives can be made responsible to voters in their constituency, not to the party leaders who have put them in office; that representatives can be made to tap continuously local sentiments while they are in office; that the interlinkages of the representative chain, particularly between voters and representatives and between the cabinet and the planning bureaucracy, can be substantially strengthened; or that the individual, as the basic representative unit, can acquire sufficient clout to affect the decision-making process.

Might there not be other means or institutions to have the interests of the individual represented more effectively? Very possibly. The fact that representation has thus far been the sole permissible form of individual participation in official decision-

making makes the search and development of such other means and institutions imperative. Malaysians presumably can develop some new Malaysia-specific institutions to enable this participation outside the existing representative system. This is desirable because of the commonly-held notion that intense public participation in the political process runs contrary to the perceived requirements for political order. What, then, is to be done? The problem can be approached by considering three basic issues: the people who are (and who should be) participating in the decision-making process; the decisions, and the parts of the decision-making process, which the general populace should be participating in; and the means and the institutions for effecting a broader participation in decision-making.

The first issue to be dealt with is *who is* and *who should be* participating in the decision-making process. Many Malaysians, including a surprising number of well-educated individuals, feel simply that the *rakyat* are not ready to participate in the making of official decisions which affect them. It is felt, so urgent are the requirements of society as a whole, that leadership must come from the top at this stage in the nation's development. Although the costs of this pattern are to ignore democratic principles and the rights of the people, the gains are seen as being worth it. The limited participation of citizens and the suppression of individual voices in the name of the collective are seen as instrumental to achieve anything. If citizens were to participate and if the voices of individuals were not suppressed, it is felt that it would be impossible to achieve the many things now being implemented, just as it would have been impossible to have implemented the many things that have already been achieved. Added to this is the perceived political apathy of the populace — 'they are interested only in matters which affect them directly' — as is the perceived inability of the populace to make intelligent decisions — 'they simply are not qualified to participate in the important decisions which must be made to resolve the complex problems confronting the nation.' These rationalizations fit in neatly with the attitudes and approaches of political leaders and the planning bureaucracy. Untrammeled by requirements to be responsive, they can proceed efficiently with the implementation of their programmes, achieving goals and targets which may, or may not, be in accord with the requirements of the general populace.

It is further assumed that education will by century's end resolve many of the deficiencies which are seen to beleaguer not the planning process, but the attitudes and capabilities of the general populace. This assumption serves to justify the present pattern whereby the planning bureaucracy dominates the decision-making process to the exclusion of representatives and voters alike. The problem with this is that the planning elites, by virtue of education, position, and circumstance, are basing decisions on limited information and selecting solutions from a limited field without understanding what their full effect or reception might be. As a consequence, the potential of actions initiated by the planning bureaucracy to improve the conditions of life in Malaysia is considerably lower than it might otherwise be. Although experts admittedly are essential to the planning process, their distance from the ground suggests that they are unconscionably inexpert in their perceptions of what is required. Clearly, more Malaysians must be brought into the decision-making process — more young people, more rural dwellers, more non-Malays — to remedy the biases which at present subvert the representation and participation of the Malaysian people in decisions affecting their lives.

The second issue is related to the decisions, and the parts of the decision-making process, which the general populace should be participating in. Although it may be tremendously impractical to have all Malaysians participating in all decisions, this does not mean that it is similarly impractical to have all Malaysians participating in some decisions or to have more Malaysians participating in all decisions. It is essential to have the right combinations of people tackling the right things. The effort, cost, and disruption of doing this may, of course, be considerable. It may also be worth it. To begin with, certain non-negotiable areas of concern would have to be delineated — those concerning race and the sensitive issues would, at least for the time being, have to be excluded. A progressive list of subjects for broader public participation is suggested — one that could be enlarged as the people and process benefit from experience and results. Naturally, the populace should be involved in deciding what these subjects areas are to be.

A broad list of basic priorities could be developed for public review to create the basis for future direction of the planning process. Above all, the domains for these priorities should be

administrative, not political, even though the two are closely related. Certain local decisions could be opened to broader discussion—for example, whether road congestion is to be resolved by making bigger and better roads or by restricting vehicular access to congested areas. This is precisely the kind of decision which should be thrown back to the community, not left to a small coterie of planners. The premises so chosen would be the fundamental premises on which future planning would follow. The general populace might participate in other broad subject areas of decision-making as well. One area could embrace the non-economic planning that today is ignored. This would avoid, at least in part, stepping on the toes of sensitive bureaucrats and insecure politicians during the early stages of this broadened participation. Another area could embrace the futures planning that, with the single exception of the Outline Perspective Plan, is presently ignored in deference to the immediate. This, too, would enable the citizenry to express their concerns and aspirations in a way that initially would not represent direct threats to those enjoying the power of making decisions today.

In moving from the subjects of decisions to the parts of the decision-making process deserving broader participation, it is apparent that here, too, there can be a progressive extension of the purview. In Robert Jungk's model for the *future workshop*, delineated in Chapter 6, there are five phases in the problem-solving process: the *critical* phase in which complaints are voiced about what is being done or not done and the ways things are being done or not done; the *creative* phase in which the most important subjects are focused upon and suggestions are offered as to what could be done to resolve a particular situation and the ways in which this might best be accomplished; the *evaluative* phase in which experts separate the practicable from the impracticable and explain the reasons for this separation; the *strategic* phase in which plans are made to put into practice what has been evaluated as practicable; and, where applicable, the *experimental* phase in which some of the seemingly impracticable, but potentially highly beneficial, proposals are tried out on a pilot basis to see if these are practicable after all. This model is not that great a departure from the conventional model of analysis, planning, implementation, and evaluation. But it does give more emphasis to the analytical phase by

breaking it into critical, creative, and evaluative components. And it does involve more people. It also adds an experimental dimension to the implementation phase. Importantly, the first two of these components—the critical and creative phases—are precisely those areas in which the general populace possesses considerable competence. Today, planners intuit what is worthy of criticism, select themselves the areas worthy of attention and action, and offer their own solutions. It seems clear, therefore, that the planning process could immediately benefit from enlisting the views of the general populace in the creative and critical phases. As people gain experience and confidence in working directly with planners, they could be included in the subsequent phases as well.

The third issue is related to the means and institutions by which this broader participation in decision-making is to be effected. Referenda offer one possibility, but the application of referenda elsewhere and in the past has typically been with the objective of ratifying a foregone decision. The costs are considerable, and the information gained, miniscule. Although it may be possible in the future, given advances in electronic communication, to reduce the costs and increase the information so gained, this is too distant a prospect to wait for. Another possibility, experimented with in some countries, is the application of the jury system to matters beyond justice. Here, too, the information gained and the sentiments expressed have been limited by virtue of bringing in juries at a point far along the planning process. Choices have already been narrowed, and the requirements for expertise on the part of jurists have rendered them less effective than they might have been if drawn into the planning process at an earlier stage. Still another possibility, experimented with in Britain, is the appointment of *spokesmen* to express the views of people who will be affected by a particular decision. These spokesmen are professionals charged with determining in as comprehensive a fashion as possible the sentiments of the people and presenting these sentiments to the body making the decision. This device transcends the reluctance of individuals to express themselves and their fears of ridicule, but it also implants an interstitial link between the people and the decision-making body. And, of course, there is the future workshop, but for it to be effective there must be clear determinations of how such an institution of participatory

democracy is to be formalized, how participants are to be selected, and what the purview of their participation is to be. It may seem regrettable that there are so few models for enabling broader public participation in decision-making, but this paucity may merely make it possible for Malaysians to develop institutions which are highly appropriate to the specific conditions and circumstances in the country.

Although applicable institutional models for enabling broader participation are lacking, it is possible to suggest some ground-rules to govern the activities and purposes of these institutions as they emerge. First, the population should be assigned, as a first task in broadening this participation, the responsibility for determining the ways, means, and institutions by which this might be done most effectively. Second, these institutions must be functional. They must be vested with some demonstrable purpose. Otherwise, expectations will be unduly stimulated, disillusionment will simply increase, and dissatisfaction will continue to mount. Third, participation must be sufficiently broad to ensure that the views of a cross-section of the community are being transmitted. If special interest groups are allowed to take over, this, too, will reinforce the suspicion that these institutions are just another sham. Fourth, official decision-makers must be left with the option to reject the information and advice so garnered, so long as this option is coupled with the proviso that the grounds and rationales for these rejections will be fully explained. Fifth, the purview of participation should not overlay the existing political structure, at least in the early stages. It should run parallel to it; supplementing the existing lines of communication between the populace and the planning bureaucracy, not completely replacing them.

Given the difficulties inherent in finding the appropriate means to broaden popular participation in the decision-making processes, the probable high costs, and the likely disruptions to the existing planning bureaucracy, the question must be asked: Would this be worthwhile? The answer resides in the numerous possibilities this participation would open.

- Popular concerns and aspirations could be identified, not merely intuited, and planning considerations could be extended beyond the purely economic.
- The ever-widening communication gap between the nation's leaders and the people at the grass roots could be

narrowed, as could the gap between public servants and the public they supposedly serve.

- The variety of perspectives and options would be increased to enable departure from the western yardsticks of progress applied by the planning elite.
- The competence and confidence of decision-makers would probably increase, even though this competence and confidence would initially be threatened.
- Individual Malaysians would be involved in determining their own future. They would not necessarily be able to influence it as fully as they would like, but they would have the satisfaction of having their voices heard.
- The sooner this is begun, the greater will be the possibilities for achieving a consensus and for keeping the direction of society in accord with the aspirations of the people constituting that society.
- The democratic process, although threatened and disrupted by increased participation at the outset, would stand a better chance of being preserved by virtue of giving all Malaysians a glimpse of its potential.
- Planners and planned-fors alike would better recognize the tensions and contradictions inherent in the decisions taken.
- Popular participation in the decision-making process would result in broader popular participation in the decision-implementing process.

This last possibility is perhaps as important as all the others combined, for only if people are involved in making the official decisions which affect them will they be strongly committed to implementing programmes which stem from these decisions and to contributing responsibly to the direction and progress of Malaysian society. The right of people to participate in making decisions which affect them is thus intimately intertwined with the responsibility of these same people to contribute to the implementation of these same decisions. This responsibility is not diminished even if the decisions taken affect them adversely, as many decisions admittedly will. Hence, there must be an implied contract that the people, in exchange for being extended the right to participate, will acknowledge their responsibility and willingness to contribute to the implementation of decisions which affect them adversely or not as positively as these otherwise might. It often is assumed that people, given the

chance to participate in decisions affecting them, will act not only irrationally, but selfishly as well. This may be true in many instances, but it is only by having people participate in the decisions which affect them that they will accept rationales for actions not in their immediate interests and contribute unselfishly to the interests of society as a whole. Too few leaders, in Malaysia and throughout the world, have made this connection and have preferred to exact public compliance, not elicit the consensus that is critical not only to the future of the nation, but to their own political futures in that same nation.

If Malaysians are to be more adequately represented, if Malaysians are to participate in official decisions which affect them, if Malaysians are to contribute to the progress and direction of society, and if, indeed, Malaysians are to improve their personal well-being, they will need more reliable information about the many things impinging on their lives. And just as basic services can liberate individuals to enable their engaging in other productive tasks, so can basic information liberate them to enable their seeking out other, potentially useful information. Malaysians need more information about where to obtain goods and services at least cost, about what they can do for themselves to take care of their basic needs, and about the ways to avail themselves of the opportunities which should be open, but are closed because of their simple obliviousness to them. They also need information about what the government intends to do and why it intends to do these things.

One problem is that not enough information exists, and that which does is restricted in its flow to the public by information monopolists in government. Militating against the broader dissemination of information in Malaysia today are the feelings that knowledge is power and that a little knowledge can be a dangerous thing. Those possessing information recognize that their political, economic, or official power is based on the closely-held character of this information. To disseminate this information more broadly would be to distribute their power along with it. Consequently, they jealously guard the informational instruments of their monopoly to sustain their power. Their justification for not disseminating available information more broadly is the contention that the grass roots will never possess enough reliable information to enable them to make or participate in informed official decisions. It is similarly argued

that to give the grass roots some information, placed in a context of less than full understanding, could result in actions that would disrupt the business of society. Presumably, the same charges can be leveled against these information monopolists, who themselves have not gone to the trouble to obtain sufficiently reliable information to enable them to make informed official decisions, even though they are the only persons participating in those decisions. Clearly, pressures should be exerted on these information monopolists to gather and disseminate this information more broadly. For them to continue to restrict this informational resource is to deny the realization of potential to a vast part of the Malaysian populace.

In Malaysia, the government has assumed the primary responsibility for gathering information. The media, as part of their contract to inform, entertain, and educate, have been assigned the primary responsibility for disseminating information. Unfortunately, the government divulges only the information that its information monopolists elect to divulge. And the media, having allowed their educational and informational functions to wither, give by far the greatest emphasis to the entertainment function. The things the media do inform the public about are either unrelated to Malaysia or related to the government line. The mass-mediating organizations are thus mere agents of the government, of special political interests, and of business and industry. They are not the agents of the people, even though it is the people who ultimately pay for their messages. This means that the media are tools for selectively informing the public — influencing public opinion, not reporting about it — and toys for amusing public sensibilities — dulling public awareness, not sharpening it.

Nonetheless, it is perhaps in the democratization of gathering, storing, retrieving, and disseminating information that the greatest potential for democratizing society and improving individual well-being resides. Access to information can be as great an equalizer for those of unequal intellectual capabilities as social welfare programmes can be for those having unequal income-earning capabilities. There are, moreover, few natural limits to information itself. It is not a non-renewable, zero-sum commodity like tin or oil. It is a positive-sum commodity that cannot be extinguished or depleted by use, application, or exchange. It is virtually limitless in its inherent possibilities for

distribution. The only limits are on the logistical processes associated with its gathering, storage, retrieval, and dissemination. A lot of information that might be useful has not yet been gathered. But there is a large body of information which is potentially useful, but nevertheless monopolized by those few who possess it. The dissemination of such information could provide new recipients with the means to achieve greater mastery over their lives and to acquire a larger share in the authority governing the official decision-making process.

Because the scope of information is so vast—it deals with all of Malaysia's and the world's accumulated information and the additional information that will be gathered at an accelerating rate in the future—the complexity of effectively gathering and disseminating information appears to be similarly vast. Newspapers, radio, television, published books and reports, and other existing media are inadequate for this task. Consequently, new means must be found to supplement them. Today, electronic data processing makes possible the handling of more information than could even be contemplated in the past. For example, anything that can be done with computing systems anywhere can be done anywhere else on a teletypewriter console which has access to those computing systems. It will thus presumably be possible to do much more in the future than presently seems possible. This potential makes it imperative to initiate the expansion of information gathering and dissemination at once. It is also imperative to concentrate on information that is timely, necessary, and reliable. Because information consumers know what they want to know, they should be drawn into the process of determining the information that is to be gathered and disseminated. And because many people suffer simply because they do not know how to go about getting information which is readily available for the asking, one first step would be to disseminate information about how to acquire existing information. The expenditures associated with doing this would be justified by the usefulness to the public of even the most basic consumer information. Additional increments of information, delivered in the future to a better educated populace, could enable much more. The important thing is to undertake this in a way that benefits not the existing institutions of political and economic power, but the people themselves.

Finally, the needs of the individual and the capacity of the

individual to satisfy personal and societal needs will be directly
affected by the future treatment of everything described in this
commentary — that is, by the success of society in responding to
the demands imposed by changing values, changing social insti-
tutions, changing political institutions, and changing economic
institutions. This is not the business of government leaders alone,
or even of the people who are paid to attend to such matters.
This is the business of every Malaysian. The primary purpose of
Malaysian society, it must be remembered, is to provide a
context that facilitates the satisfaction of needs by all Malay-
sians, not just some. Instrumental to this context is the extension
of an essential level of basic services and the protection of
certain basic rights. Insofar as society as a whole is amorphous
and anonymous, it devolves on individuals who constitute this
society to ensure that such a context is fostered. All Malaysians
therefore have the responsibility to contribute to the creation of
a societal context that fosters the satisfaction of needs not only
for themselves, but for others as well. To the extent that Malay-
sians accept this primary responsibility, to the extent that
Malaysians give to their society as well as take, to that extent
will the needs of individual Malaysians be satisfied, and to that
extent also will Malaysia become the nation Malaysians want it
to become in the year 2001 and thereafter.

The continuing inquiry

• What needs must be satisfied by individuals themselves, by
individuals with assistance from society, and by society for the
individual in instances of individual incapacity?

• What levels of basic household services — of piped water,
electricity, waste removal, transport, and communication — can
today, and at various points in the future, be regarded as
essential, desirable, and luxurious?

• What levels of basic personal services — of health care,
education, security, and leisure facilities — can today, and at
various points in the future, be regarded as essential, desirable,
and luxurious?

• What is Malaysia's present record in the delivery of household
and personal services in terms of various indicators of social
justice, that is, for males and females, young and old, urban
dwellers and rural dwellers, residents of each of the 13 states,
and members of all the various ethnic groups?

• Are urban-rural differentials greater for household or personal services? What are the implications of these differentials? Is it justifiable for Malaysia to raise urban services from essential to desirable and luxurious levels while rural services remain below even the essential level?

• What are the fundamental and ancillary purposes of education in Malaysia?

• What will be the number of young Malaysians eligible for primary, secondary, and tertiary education in 1981? In 1991? In 2001? To what extent will the supply of facilities and personnel fall short of the expected demand?

• What subjects constitute the curricula at primary, secondary, and tertiary levels of education in Malaysia? Who has determined these curricula? What changes in curricula and teaching methods would be recommended by students, parents, teachers, educational administrators, and employers?

• What alternative methods of selection might be developed to determine the passing of candidates beyond the various promotion points?

• Because the thrust of educational services is to devote efforts, resources, and attention to those who have passed, or are capable of passing, the various promotion points, what might be done to provide educational services and rewards to those who are out of the educational mainstream and presently ignored?

• In the development of health care services, should the emphasis be upon modern facilities and highly qualified personnel or upon the treatment of basic disorders? Which of these options would be favoured by doctors? By patients?

• Because the thrust of health services is to devote efforts, resources, and attention to those who are ill, not those who will be ill if they continue with their present behavioural and hygienic patterns, what might be done to provide health services that give as much emphasis to preventive medicine as presently is given to curative medicine?

• For each of the basic services, how do the content and methods of provision of what presently is pursued differ from what is ideal and optimum?

• To what extent is Malaysia drawing on the experience of other countries in the development and provision of basic services? Many countries have faced, or presently face, the problems now faced by Malaysia. Persons in these countries could presumably

offer some very useful suggestions and warnings about what is here being undertaken to enable anticipating problems or solving them before they get out of hand.

• Do the rakyat want to participate in the decisions which affect their lives? Should more Malaysians be brought into the planning process? If they should, what decisions should they participate in? What decisions should they not participate in?

• In what ways could broader public participation in decision-making be institutionalized? Would broader public participation disrupt the planning process, make it more effective, or both? Who thinks it would disrupt the planning process? Who thinks it would make the planning process more effective? Who thinks it would do both?

• Is it true that, if people participate in decisions which affect them, even decisions which affect them adversely, they will be more ready to accept rationales for actions not in their immediate interests and to contribute unselfishly to the interests of society as a whole?

• What information would be of greatest utility to individual Malaysians in their conduct of daily life and in their capacity to participate effectively in decision-making and decision-imple-menting? Is this information presently available, but not disseminated? How might useful information that is not presently available be effectively gathered and disseminated?

• If the media, to everyone's great surprise, were to accept the responsibility to inform the public, what should they inform the public about? Would this be possible if the media had no independent capabilities for information-gathering, or if the present patterns of media ownership and control persisted?

• What information could teletypewriter computer consoles usefully provide to every household? What information could such consoles gather from every household?

• What are the dangers of having the government responsible for gathering, storing, retrieving, and disseminating information to the public? Should there be—indeed, could there be—an independent agency, independent even from business and industry, charged with this responsibility and supplied with the necessary resources to make it functional?

• Assuming that it will be a long time until government is sufficiently secure, and private business and industry are sufficiently charitable, to have more information available to the

public, it seems that only government could marshall the resources to provide useful information on the scale required. What information should it concentrate upon initially? Subsequently? How should it undertake this task?

• Are basic rights divisible into essential, desirable, and luxurious levels of protection, or are basic rights indivisible?

• How do various Malaysians fare when indicators of social justice are applied to the protection of basic rights?

• Many non-Malays believe that the provision of dignity to Malays—with regard to language, special rights, schooling, promotions, and culture—compromises the provision of dignity to non-Malays. To what extent is this true? What can be done to alter this pattern or belief, whichever it turns out to be?

• What things impinge on the likelihood that Malaysians, during the last quarter of this century, will contribute to the creation of a societal context that fosters the satisfaction of individual needs for all Malaysians, not just some? That Malaysians will give to their society as well as take?

Considered Views
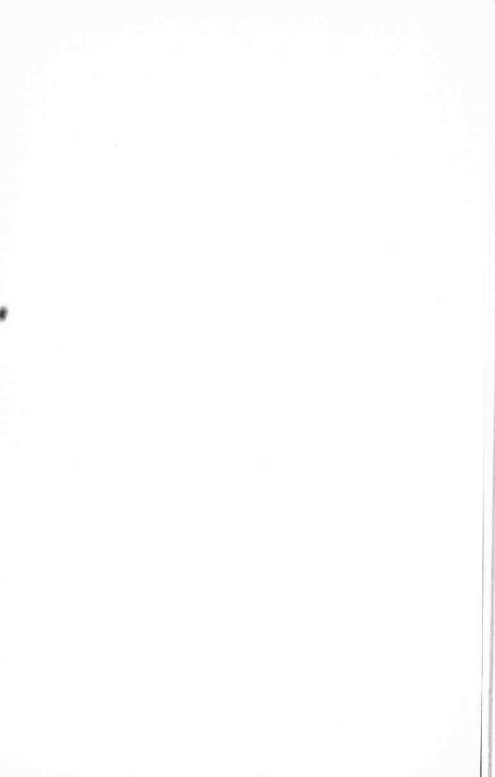
The Future
Belongs to All People

Jungk criticizes the closed shop of futurism, which he feels is too secretive and elitist, and recommends that the shop be opened to more participants, methods, subjects, and approaches. He makes appeals for encouraging, not stifling, individual creativity, for undertaking social innovation and experimentation, and for tackling a number of heretofore neglected subject areas. Jungk advocates releasing futurism from the shackles of western, rational thought, seemingly believing that a larger pool of ideas and approaches, particularly in the non-scientific realm, will increase the adaptiveness of the world society to impending future crises. He also makes appeals for anticipatory democracy (identifying and solving problems before these reach crisis proportions) and participatory democracy (collective problem-solving that involves more than the elites of the world's societies). Finally, Jungk suggests a forum and a five-phase approach for collective creativity — the future workshop.

Futurism may be another of the West's rather doubtful gifts to the rest of the world. It started as a serious endeavour just after the Second World War on the initiative of the U.S. Armed Forces, which founded the RAND Corporation in order to develop strategic and tactical foresight. Futurism then moved into business, and the great corporations have benefited greatly from the new techniques of forecasting developed by the scientists assembled in these recently-created think factories. As

in many other instances, war—or the fear of another war—has been the mother of invention. But these military beginnings left some rather ugly birthmarks on futurism, such as secrecy and elitism. Later, a different kind of futurism developed that was more critical, civilian, and democratic in its orientation than the first phase of future research. Even so, the methods and ideas which have made futurism popular, indeed so popular as to influence most outlooks published in different parts of the world, are far from perfect, and some of the defects should be pointed out.

To begin with, future research has concentrated too many efforts on forecasting new technologies. It therefore envisions the earth and even the heavens to be filled with all kinds of super-gadgets. But it has neglected to address itself to the future development of the creatures who have invented, will invent, or will purposely not invent all these formidable instruments, namely: men and women. Second, future research started in the West and has been impregnated with and dominated by western ideas. It has therefore developed future images and prognoses which reflect the attitudes, biases, and prejudices typical of western people. Third, future research has been the almost exclusive activity of an educated elite which has not taken the trouble to consult, much less involve, people of all professions and walks of life. It has therefore largely become an instrument of power of an intelligentsia which tends to colonize the future in its own image and according to its own interests or the interests of those who commission and finance the work. Fourth, the main body of future research has been influenced by the methodology of the natural sciences and is built on rationality and logic. Its prognoses and scenarios are to a large extent dominated by linear thinking, that is, the extrapolation of present data into the future. It has neglected the irrational, the unexpected, and the surprising, which until now have been the domains of poetry, the arts, and the supernatural in myth and religion. An enlargement of future research into human forecasting, multiple cultural images, the democratization of future studies, and complementary visions emanating from the irrational part of the brain must be urgently attempted if we are to get away from the one-sided, uni-dimensional, single-interested futurology of the postwar period.

The development of man

Dr Jonas Salk, the discoverer and inventor of the vaccine which helped vanquish poliomyelitis, has of late been devoting his life to research on the possibilities of human development. In so doing, he likes to talk about the *unfolding* of man, implying that man as a species has not really blossomed yet and that part of man's inborn potential is still unnoticed and unused. Without going into a full detailing of Salk's ideas, which to a certain extent are narrowed by his outlook as an eminently able and successful biologist, it is worth mentioning a few areas where human development may still be expected.

- Evolving better methods of learning, based on the more thorough study of observational processes, biological responses, and the functioning of memory.
- Improving mental abilities by making use of the considerable portion of the human brain, which according to many neurophysiologists is hardly used.
- Developing the perception of complex problems and complex structures which today can be grasped only by computers, if at all. Because many elements of complexity cannot be molded into clearly definable data, the electronic information devices either pass them by or pin them down in a way which kills them off. Only man, with his gift for dealing with hunches and very weak and fuzzy indicators, can develop the necessary ability to see wholes that have nothing simplified or left out.
- Enhancing or restoring such human senses as hearing, smell, taste, and touch, which have been lost or at least weakened by modern living.
- Strengthening man against the onslaught of illness and old age.
- Finding ways to redirect human aggression without destroying it.

Each of these merits serious consideration and may be as challenging for our generation and the next as wireless transmission, fast transportation, and splitting the atom were to our fathers and elderly friends. This is nothing approaching a complete list, and it is hoped that a number of other possibilities as well as desiderata will eventually be developed.

The main concern at this stage of human history should, in my opinion, be the enhancement of *creativity* in every human being.

The reason for giving priority to this task lies in the number of crises that will certainly be faced before the end of the century. Obviously, the solutions offered thus far, from wherever they are coming, are insufficient. Consequently, a conscious effort to teach and learn problem-solving should become an important part of every curriculum.

Edward de Bono, an Englishman born in Malta, has tried to develop methods of what he calls *lateral thinking* in order to side-step the routine approaches of contextual logic. An illuminating example of such methods is his little book of inventions made by children between five and 12 years of age. He asked them to design organizations or contraptions which might stop the fighting between those old enemies, cats and dogs. The children were asked to think up truly original ideas, and they succeeded in their task. Among the most unusual proposals was one which did not rely on a new type of complicated machinery, but suggested simply that dog food be smeared on the face and body of the cat and that cat food be smeared on the dog. The thinking—at least in the mind of the little girl who invented the approach—was that the dog would lick the cat, the cat would lick the dog, and the two animals would become friends. Now, an adult would be quick to point out that this might be a rather dangerous proposal. Perhaps the cat would not lick, but bite; perhaps the dog would retaliate by biting back; and the outcome would not be a beautiful new friendship, but a dead cat and a severely scratched dog. This misses the point, however. The original idea, unhampered by doubts and fears, is the naive product of an intelligence not yet influenced by all kinds of possible and impossible constraints and; to use the words of Herman Kahn, is an attempt to think the unthinkable Do we think the unthinkable often enough? Are not most of our emergent ideas and uncontrolled dreams killed by ourselves before they can take shape?

Since 1950, a growing number of ways of trying to study and develop man's innate creativity have been developed Techniques like brainstorming, for example, have become part of our everyday language. In the U S. alone, the number of papers on aspects and methods of creativity rose from 53 in 1955 to 474 in 1965 and, according to a bibliography of the Creative Education Foundation, rose to more than 1200 for the 18 months between January 1965 and June 1966. Today, the creativity

boom seems to have fizzled, and this has been for a good reason. Individuals who tried to apply their newly acquired creative powers found quite soon that society did not want, or was even truly afraid of, creative people. They were chided for being unrealistic or branded as troublemakers and radicals. Most of those who scribbled *l'imagination au pouvior* (more power to the imagination) on the walls of Paris in 1968 have been muzzled and tamed. They either adjusted to the existing structures, where experience founded on the past is more valued than fresh and even radical ideas about the future, or dropped out and so lost any real influence on the way the world is developing.

Still, a good and even necessary idea which has failed momentarily does not become worthless by that failure. It has to be rethought and reformulated. More imagination about tactics and strategies can be recommended to those who lost their frontal assault on old and encrusted routines of thinking and doing. One alternative might be to endow models of imaginative new thinking with more concrete and tangible features. This means more than simply talking about radical new futures. It means trying to live a radical new future in an experimental way, testing and observing prototypes, and changing them when necessary. But has this not been tried in all kind of communes and other designs for alternative living? Not really, and this is because the so-called experiments only in rare instances deserved the name, experiment. These were not planned thoroughly enough, were not observed and studied in a systematic way, and worst of all lacked sufficient financial support to weather the unavoidable and necessary crises in their existence. A second series of more serious attempts at social innovation and social experimentation seems to be in order, and there are several tasks which could or should be set for this.

- Establishing models of new and different political institutions, updating the rather ancient and by now largely undemocratic traditional institutions, like parliament and the big parties with their autocratic machines, to give more voice and true representation to the people.
- Establishing models of new and different economic structures, improving not only on corporate capitalism, but on bureaucratic state communism as well.
- Inventing sophisticated, non-violent, and effective methods of political and social change, in a way

comparable to the deep changes in medical treatment which progressed from the primitive, bloody, and hurtful methods prevalent until the beginning of the 19th Century to the careful diagnostic methods and cautious therapies that characterize the best of modern medicine.
- Creating new jobs and new and more meaningful ways not only of working, but of loafing, dreaming, and playing in an active and satisfying manner.
- Thinking about the conditions of a society which does not penalize innovation and diversity, but encourages it.

A large order, but this is one compelling reason for attacking at least some of these tasks. If only a relatively small percentage of the imagination, which in the last 50 or 100 years has been devoted to scientific discovery and technological invention, could be devoted instead to human and social inventions such as these, this might be called true progress.

One reason for there being so little interest in such creative activities cropped up in a recent Delphi exercise involving 78 eminent scientists at the U.S. National Science Foundation. Asked why they thought social innovations had not yet attracted excellent scientific minds, all 78 participants answered that such ideas were not rewarded! There may be a definite need for redirecting creativity towards such important tasks, but there is no real market. There are no patents for inventors, and there are not even social rewards in the form of titles and honours. Here is one more field to be on the lookout for inventors who might come up with some feasible motivation for social creativity.

The pluralistic development of futurism

One must also ask if futurism has seriously addressed itself to the question of whether some Tunisian, Nigerian, Thai, Peruvian, or Malaysian might and should see his future in terms that might be very different from the way leading western schools see futurism. It has been said that there can be only one natural science in the world because the laws of nature are the same under all skies. It has also been said that there can be only one technology on this planet because the way machinery functions is and must be the same on all continents. Seeming truisms, but I would question their applicability to futurism, which may indeed be different on different continents under different skies. Might not even the natural sciences be seen with a different eye by

scientists coming from a different cultural background?

A now famous example is that of Lee and Yang, the Chinese theoretical physicists who discovered and demonstrated that the old paradigm of particle parity (ie. symmetry) did not correspond to the nature of the sub-atomic universe. They later declared that they were able to think about asymmetric conditions in the realm of the nucleus because the Chinese way of seeing the world, instilled in them when they were infants, did not put symmetry on a higher plane than non-symmetry, which western people do unquestioningly. Simply, Lee and Yang did not have to face the same barriers of thought which prevented western physicists from recognizing the absence of parity under certain conditions. This is not the only indication of the interesting and important breakthroughs which can be expected from African, Asian, and Latin American scientists in the next decade. Science is not absolute truth. It is a way of seeing and explaining nature. And the way nature is seen, interpreted, and even used has until recently been monopolized by the western way of seeing and interpreting.

It is with regret, therefore, that one observes so many gifted people in other parts of the world slavishly imitating western modes of thinking and acting. In my opinion, they possess many qualities that western man has lost: sensitivity, a real feeling for beauty, and the ability to see — and this may be the most important — deep connections between, and deep relationships within, the living and the non-living world which have thus far eluded the special bias of the western-trained scientist. Some of, these ways of seeing the world in a different way are known to the West, but discounted as witchery or 'magic, as shamanism or animism. In short, these are not taken seriously, but rejected as primitive. Creativity is being stifled unnecessarily.

For a start, we might stop talking about 'underdeveloped' countries, for labels such as this lead to undervaluing, and talk instead of 'differently developed' countries. It might also be reasonable for people in the differently developed countries to stop looking down on their past, their traditions, their folklore, and their ways of thinking, and to use these as a source for the different and original development of their own ideas — a development which has been largely interrupted, or at least minimized, by too much admiration of the powerful western man who, at the limits of growth, is now beginning to see the

immense price he paid for that power. It might be reasonable for futurists in Malaysia to begin to envision and shape a future based on Malay customs, Chinese wisdom, and Indian philosophy. Think of the potent mixture this could make and the instruction it could provide to the West. Malaysians are accustomed to seeing development helpers from the West, but should be prepared in the coming years of crisis to send their own development helpers to western countries to teach them how to live with less, to value immaterial events like beauty and well-being more than obsolete gadgets, and most of all to discover a deeper sense in life, which most people in the West have lost.

Anticipatory and participatory democracy

Alvin Toffler is one of the more famous and ardent proponents of the increasingly democratic kind of futurism mentioned at the outset. He suggests that futurism should emphasize the openness of the future, the need for far-reaching imagination, and the fuller exploration of alternative political, cultural, economic, and social arrangements. The notion is one of anticipatory democracy and requires that all segments of society have an opportunity to express freely their hopes, fears, and dreams and to articulate their goals. Many other futurists, like Chaplin, Galtung, Steenbergen, and myself, agree with this view and feel it is imperative that men and women of all walks of life are involved in discussing, inventing, and shaping the future.

When this is mentioned to leaders and planners in countries like Malaysia, doubts are expressed about the possibility and viability of so doing. They insist that most people in their country are not yet ready for such participation. Many years of autocracy have left their mark: they had always been ruled and therefore were not accustomed to making up their own minds. The arguments are reminiscent of those used by white colonialists when they talked about the 'underdeveloped' people under their rule. Is it not strange that the new elites of the nations freed from foreign domination now talk about their people in the language of their former masters and use the same ridiculous arguments? Why do they look down on their own people? Why don't they trust them enough? Why do they think these people are not competent enough to help build and administer the community and nation? Every person is competent in his or her own way:

competent by life experiences as father, mother, son, or daughter; competent by occupational experiences as farmer, fisherman, labourer, merchant, or mechanic. But most important of all, every human being has been born with the uniquely human gift of imagination, which unfortunately is too often killed by authoritarian teachers.

One effort to broaden the participation in planning was made by Stafford Beer, the English management specialist and cyberneticist. He was called in by President Allende of Chile to help organize a just, cybernetic economy which would at all times know what its people wanted. He established an information centre in Santiago where, hour after hour and day after day, telegraphed reports were received from hundreds of factories, farms, and mines. To formulate decisions based on the information coming into this so-called operations room, he assembled not only some of the most learned men of the country, but simple workers as well. Initially, he had doubts whether they would understand what was going on. But he soon found that the workers were as intelligent as, and sometimes more intelligent than, the specialists taking part in the exercise. The confidence of the workers grew with the confidence bestowed on them. They became more assertive and able because of their growing pride in being given a real share in national responsibility.

I have tried myself to develop a new way of getting the direct democratic expression that is prerequisite to anticipatory democracy, and I have called this the future workshop. There are four phases in these workshops: the criticizing phase, the creative phase, the evaluating phase, and the strategic phase. In the first phase, participants are asked to voice all their grievances about the subject they have agreed to discuss, whether this be working conditions, education, life styles, environmental conditions, or political institutions. In the second phase, they concentrate on the three most important grievances and try to formulate their wishes and imagine solutions in a free-wheeling manner. In the third phase, the new ideas they have come up with are evaluated by experts together with all the other participants. The fourth phase is dedicated to seeking ways of finding compromises between the high-flying proposals of the brain-storming creative phase and the constraints of reality expressed in the evaluating phase.

I have held these future workshops with people of all ages and

many walks of life—architects, miners, children, old people, managers, trade unionists, and so on—and I have found all those participating to be not only extremely imaginative, but extremely understanding when the experts explained the difficulties of implementing some of their excellent ideas. One of the most interesting results has been the increased willingness to learn of those who previously had not been overly interested in learning. The fact that they were asked to express their views, and were taken seriously, increased their interest for information which might be helpful in the implementation of their ideas. Many have said after the workshops that for the first time they felt they were being taken seriously and might have a voice in shaping the future.

Like most other futurists, I think the next 25 years will be a period of crisis and upheaval. Change will not come so much from violent revolutions as from the more likely breakdown of inappropriate societal and economic structures. In these times of crisis, all people must come forward with ideas of their own to find ways of replacing ruined and corrupt institutions. Criticizing inhuman and intolerable conditions is only one step in a more complex process. After the critical attack, proposals for better solutions must be brought forward. Some of these solutions may put strains on the people themselves and necessitate sacrifices. But the people affected will shoulder these sacrifices only if they have been consulted beforehand and only if they feel it is *their* future.

I have begun to experiment with a fifth phase in these future workshops. I feel it is possible to test some of the proposals and projects invented and designed in future workshops through representative social experiments. These may involve a new type of factory run by the workers, a new type of school, or a new type of unbureaucratic government office. In order to set up such experiments, I have established the International Foundation for Social Innovation with some French and English friends. We want to encourage new social ideas, experiment with them in a truly scientific way by designing and observing these in the most accurate manner possible, and then evaluate the results. We hope to proceed like industrial engineers who test a whole series of prototypes, one after the other, until they come up with a model that can go into mass production. In this way, we hope to overcome the fear of an uncertain future, the fear which very

often is the main reason necessary changes are obstructed. Experimentation can offer to everyone interested an idea of how a different future might look.

There has been a lot of discussion about the limits of growth and similar notions which indicate that we have reached the end of many lines. I nevertheless feel that one frontier is still open, beyond which we may unearth immense treasures: the mind of man, the minds of the many common men who have been either neglected or misshaped by overzealous teachers. If we can at least help people to discover the genius within themselves, then we can hope to overcome the crises we must face before the end of this millenium.

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Futures Research

Dator sets out the beginnings of an analytical framework that helps to contain and give order to the multifarious considerations of the future that so often are in disarray. He begins by describing various images of the future which different people have — traditional, developmental, ecological, transformational, and mystical. Because these images influence the ways people respond to notions concerning the future, it is necessary to understand the basis of these images and the patterns of expectation they engender. Dator sees trends and events as the raw materials of futures research. Because these often have profound effects on the direction of society, some solid theories of societal structure and social change are required to explain them. The present lack of a body of such theory is in his mind the weakest link in futures research, rendering it all very suspect: Can futures research interpret and predict societal changes if futurists have no firm idea of how society is structured, how societal structures change, and what causes these changes? Even with an adequate array of images, theories, trends, and events, it is still necessary to develop analytical methods to operationalize the theory and get information from the trends and events. With this presentation, Dator begins to strengthen the limited conceptual vocabularies we all have of the future and gives us some conceptual catalysts for assembling, defining, and interpreting perceptions of and approaches to the future.

All people have an image of the future that can be labelled as

traditional. Essential to this image is the belief that tomorrow will be like today and that nothing can be done to change it. The reason for this inevitability is that today is felt to be just like yesterday. For thousands of years, people lived together in circumstances in which the future was considered to be beyond any person's power to control and so thoroughly predictable as to merit no place in arenas of serious concern. Many people throughout the world still live or spend part of their lives in circumstances where the best prediction for the future is the past. Each day is lived in the certainty that whatever was proper to life yesterday is proper today and will most certainly be proper tomorrow. The past prefigures the future so fully that the future is scarcely thought about, except for those small amounts of planning that ensure that the future is a repetition of the past. A cyclical variation of the traditional image, based on observations of the seasons and the human life cycle, suggests that things rise and fall, but on average remain about the same. Some societies have developed very elaborate views of a rise and a fall followed by rises and falls. Other societies have the view that things will get better, but not too much better because the better things get, the sooner and longer will be the inevitable fall. At the very least, people are psychologically conditioned to look at the future this way. It may also be that people are biologically conditioned to look at the future with this perspective and that human beings have been selected over the long period of evolution because of their inability to think ahead.

Over the last two hundred years or so, some things have happened to change this image and give a slope to the flat view of the course of human history. After being germinated in the 18th Century, the scientific and industrial revolutions flowered in Europe, the United States, and spottily throughout the rest of the world in the 19th and 20th Centuries to alter significantly the human situation and to erode gradually and irregularly the traditional image of the future. People in some parts of the world—notably in certain of the so-called developed nations—acquired very active notions of the future. By hoping, planning, scheming, saving, and deferring gratification, they felt the future could be shaped and made quite different from the past. No longer was there the inevitable replication of old ways. Instead, there were choices and options. The image is now very fluid and varies considerably in different parts of the world.

Constant to it, however, is a notion of progress. It can thus be labelled as *developmental*. The general idea is that things can be changed by thought, action, and the appropriate application of ideas, values, and technologies. Many things can be done that could not be done before. These new things will make possible still newer things that are not even considered possible at present: hunger will no longer be part of the human condition; poverty will be eliminated; riches will be acquired. A stairway of progress will lead to a paradise where things get better and better and better.

An *ecological* image of the future — that we have reached the limits of growth and can develop no further — is now competing with the developmental. The voices of some people looking out into the future from the crow's nest of Spaceship Earth shout down to those of us minding our own business that we are fast approaching the end of the world. The only way to avoid global calamity is to prohibit further resource development, population growth, and production based on present methods. The objective is to create a peaceful and still society in which everybody does precisely as they are told. They can think no longer about making something of themselves, using energy and resources, or trying to get a better job, but only about being very quiet. Whereas scientists used to assume that the human race could look forward to habitation on Earth for millions of years, we are now warned that we may have fewer than 100 years, and some think we have fewer than 25 years. The future has been foreshortened with terrifying swiftness. Although ecologists differ as to whether anything effective can be done to forestall or prevent disaster, all agree that the developmental image and its consequent actions are to blame.

The three dominant images of the world of the future are the traditional, developmental, and ecological. A fourth image, typified by Buckminster Fuller's views, is the *transformational*. Fuller feels that human development is analogous to a chick inside its egg — having consumed the nutrients and reached the limits of the egg, it cracks through the shell to move into a different stage of life and find an entirely new range of nutrients and behaviours. A number of other people have different transformational images, all of which posit the birth of a new world order and a new civilization. We have reached the end of the industrial era and the end of industrial life, but not the end of

development. We have reached the end not of growth, but of a certain type of growth. By and large, the adherents to this image are found in the most advanced sectors of the fully industrialized nations. They feel that the developmental image is wholly misleading and that some form of post-industrial society either is emerging or should be consciously brought into existence. The message to developing countries is this: Do not plod through each of the growth stages that the presently industrialized nations went through—stages which have brought considerable misery and are now being moved beyond—but attempt instead to bypass completely the industrial stage and move directly from pre-industrial to post-industrial society with the aid of electronic and other advanced technology. This is viewed with utmost suspicion as yet another colonial plot to prevent the development of the Third World.

A fifth image, the *mystical*, is not to be confused with the orientations towards the future of conventional religions, which fall into one or another of the other images. The mystical image is that we should not be bothered by things that seem to be of the real world, for these are not the real world at all. The real world comprises things hidden from our eyes and our ability to understand them at present. The real becomes unreal, and the mystical becomes real. Consequently, the best approach is to stop worrying about development, about science and technology, about politics and economics, and even about time. We should transform ourselves so that we are concerned only with our own spiritual and mystical needs. The basic idea is that if everyone became concerned only with their personal development and stopped worrying about politics, economics, and present-day society, this would result in a better life, albeit totally different from the terms in which we presently conceive it.

I have thus far concentrated on the positive aspects of each of these images. There are, of course, negative aspects. Some people argue, for example, that the future of developmental society is very similar to the scenarios described in *Brave New World* and *1984*, wherein continued industrial development is possible only with increasing authoritarianism and global dictatorships. Nor is there much optimism in the ecological image, except possibly for saving humanity. Two outcomes, summarized by Robert Heilbroner in *An Inquiry into the Human*

Prospect, are imaginable in a future that certainly will be no better than the present and in all likelihood will be much worse. 'One is the descent of large portions of the world into conditions of steadily worsening social disorder marked by shorter life expectancies, the stunting of physical and mental capabilities, and the emergence of political apathy intermixed with riots as crops fail.' All the positive things envisioned by the developmentalist, or even the traditionalist, are impossible. 'An alternative course of action may avoid this dreadful situation. This is the rise of governments that have the capability to bring environmental deterioration and the population flood to a halt. Such governments, in the absence of innovations in the exercise of power, would have to be capable of rallying obedience far more effectively than is possible in a democratic setting.' The choice would be between chaos on one hand and authoritarianism, totalitarianism, or fascism on the other. Democracy would no longer be possible. Post-industrial transformations do not offer much solace, either. A utopian existence in which there is enough of everything for everybody may sound wonderful, but it is doubtful whether the transformation from the old world order to the new can be made in a life-enhancing way. There very likely would be social and psychological chaos, if not total anarchy which could degenerate into the war of all against all. Even the serenity of the mystical image is offset by the likelihood that in order to withdraw from the unrealities of the political, economic, and social world and pursue personal salvation and development, we would have to escape to autistic cocoons of apathy. Those not so inclined would then march forward and take over.

Thus, there are at least five totally different images of the future, each having its own validity. Like many typologies, the separate types are neither discrete nor complete. But it is useful to have an awareness of the types of images people hold. Because different people have different images of the future, it frequently is found that the images clash when attempts are made to discuss the future. This is confounded by the often profound differences between what different people think is probable, possible, and preferable. In addition, individuals frequently use the future with combinations of these different images. A person might have traditional views about family life, developmental views about economic life, and transformational views about political life. The very person who wants to have the

most traditional family structure—in which his wife and children do exactly as he tells them—may be a developmental economist who is out changing the world by putting up buildings, laying down roads, and destroying many aspects of traditional society. As these different attitudes towards the future are examined, it will be discovered that talking about Malaysia in the Year 2001 is very difficult. Malaysians may want, for example, to hold on to Islamic traditions and at the same time achieve a very advanced economic and technical structure. This may be possible, but it is by no means easy. To keep these things in the desired balance requires an enormous amount of thought, invention, and social engineering.
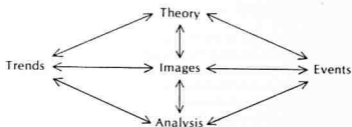
Images can be considered as constituting one basic component of futures research. These must be integrated with a series of other components if the future is to be better understood. The weakest part of futures research at present is the obvious lack of an explicit *theory* of social change. When the social theories of most futurists are probed just a little, these are found to be poorly articulated. This is one reason futurists have ambiguous reputations that give rise to their being seen more as crystal-ball gazers than as scientists. *Trends* and *events* are the raw material of futures research, and knowing about trends is important to all futurists. In addition to dominant trends, there are weak trends which run against dominant trends. These raise theoretical, ideological, and epistemological questions about what trends are and how these relate to theory and images. For example, what is true globally about population growth may not be true locally, or what is true for a country as a whole may not be true for one part of that country. This complicates the identification of trends. There are also things that might be called *events*. Insofar as events may be poorly understood trends, these also involve serious methodological problems. If one thinks that the

world is totally caused, whereby everything has a cause and the causes can somehow be identified, then even events can presumably be trend-analyzed. What generally happens in futures research is that attempts are made to decide what the important trends are and the data of their past history is compiled and projected into the future. The question raised is this: What happens if something suddenly happens to interrupt the trend? Even with an adequate understanding of images, theories, trends, and events, some methods of *analysis* are necessary to operationalize the theory and to get information from the trends and events. This is the business of futures research, and in the following outline some of the more basic components of formal futures research are indicated.

Alternative Images of the Future
    What people want for their future
    What people fear about the future
    What people feel the future will be
    Traditional, developmental, ecological,
      transformational, mystical
Theory of Social Morphology
    Theory of social structure and change
      Levels of change
        Cultural evolution
        Societal change
        Organizational reform
        Personal development
      Time scale
        Immediate
        Intermediate
        Distant
      Causes of change
        Endogenous—exogenous
        Intended—unintended
      Constraints and resources
        Biological
        Environmental
        Cultural
        Technological
    Social indicators
      (from Johan Galtung, *The True Worlds*, 1975)

Personal growth (alienation)
Diversity (uniformity)
Socio-economic productivity (poverty)
Equality (inequality)
Social justice (social injustice)
Equity (exploitation)
Autonomy (penetration)
Solidarity (fragmentation)
Participation (marginalization)
Ecological balance (ecological imbalance)

Trends
  Levels
    Cosmic
    Global
    Regional
    National
    Communal
    Individual

  Types
    Linear
    Curvilinear
    Cyclical
    Spiral
    Other

  Units
    Population
    Language
    Values
    Socialization
    Health
    Education
    Resources
    Agricultural production and distribution
    Industrial production and distribution
    Land use
    Habitation
    Transportation
    Communication
    Climate/weather
    Technological innovation and diffusion

Events

    Acts of God (natural disasters, diseases, manna)

    Accidents

    Political decisions

    Wars

    Assassinations; terrorist acts
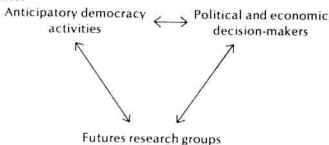
    Fads

    Inventions

Analysis

    Age-cohort analysis

        eg. N.B. Ryder, "The Cohort as a Concept in the Study of Social Change," *American Sociological Review*, 1965; Leonard Cain, "The Young and the Old: Coalition or Conflict Ahead?" Portland State University, 1974.

    Structural analysis

        eg. Johan Galtung, "A Structural Theory of Imperialism" and "Structural and Direct Violence: A Note on Operationalism," in *Journal of Peace Research*, 1971.

Process

Anticipatory democracy ⟷ Political and economic
    activities   decision-makers

Futures research groups

It would surprise me to find a single image of the future in Malaysia. I expect there are a wide variety of images, and this makes it useful to try to find out what people want for their future and how this differs from what they fear about their future. The two often are strongly linked. There frequently is a third thing—what is thought about what the future will in fact be—and this is not necessarily the same as either their hopes or their fears. It is important for every person and for society as a whole to discover, elucidate, and discuss these ideas and images of the future. It also is quite helpful to think about the past, not only because it can be comforting or discomforting, but because it indicates some of the things that seemed to be the best hopes

in earlier times. For example, it might be interesting to discuss with the people who planned the present Malaysia what they had in mind 15 or 20 years ago and to ask them if their plans have indeed been realized. If these have been realized, are people contented with them? If people are discontented with them now, why are they discontented? Another thing to look for is whether people can adapt to a change-oriented perspective. The hope of many Malaysians is to return once again to an orderly, predictable, consensual sort of world. I do not know much about the future, but I am absolutely certain that the next 25 years are not going to be orderly. Not in Malaysia or anywhere else in the world will there exist this sort of orderly, non-competitive, non-argumentative society. In fact, it may be much healthier and more future-oriented for people to find ways of living energetically in what now is considered to be chaos, anarchy, and disorder — to realize that the present world is quite different from the past and that there will be no transition to some orderly state in the future.

As stated earlier, the weakest part of futures research is that there is no clear theory of what might be called social morphology — how society is structured, how society changes, and what causes social change. In a theory of social change, it is necessary to distinguish levels of change. The evolution of culture is similar to the evolution of physical life, and part of this evolution is societal change itself. Some changes in society are influenced by, but also somewhat different from, the grander evolutionary changes. Given this, it is possible to talk about organizational reform: how to change the educational system, the military structure, or the bureaucracy, and yet leave the overall structure of society much the same. At another level is the question of personal development and individual growth. All these things are closely related, but they need to be clearly distinguished when discussing and analyzing the future.

Second is the question of time scale. Some futurists deal in global, cosmic, and universal perspectives that sweep backward and forward over millions of years. If I were ever to start another conference on the future, I would not use any specific date, such as 2000, 2001, or 1985, unless I really wanted to know what the world might be like at that very particular point in time. This is because 2001 is too far away for some things and too close for other things. Almost everything we are interested in is presum-

ably going to be there in the year 2001, but when forced to think within a time frame of 25 years, it is confusing to talk about things that will be problems for the next year or two and things that will be problems for the next 300 years. There is also a tendency to worry about the year 2001 and to forget about things happening afterwards—for example, there may be plenty of tin for the year 2001, but none for the year 2005. We need therefore to question whether the discussion of societal characteristics is actually amenable to certain points in time. The distinction suggested in the outline is among the immediate, the intermediate, and the distant, with no particular times being assigned to them.

A third question relates to the causes of change, assuming of course that things are in fact thought to be changing. Many people argue quite forcefully that nothing important in the world is changing and that the basic human character and basic human problems are always the same. We are doing all right, we have done all right and, as long as we do not spend too much time thinking about the future, we will continue to be all right. Others argue against thinking about the future, and the complaint is frequently registered at conferences on future studies that people should think not about the future, but about the present, because we have very serious problems right now. For those who do not feel this way, it is helpful to distinguish the endogenous from the exogenous—the things within the system from the things outside it. Also helpful is a matrix that identifies causes inside the system, causes outside the system, intended causes, and unintended causes. It frequently is found that most change, if there is such a thing, is unintended. One thing is attempted, but something else unfortunately and unexpectedly happens. One major criticism of development as an image of the future is that it fails to discuss all the other things that change but are not part of the development goals. It may be fine to want a better hospital, but what else is being done to society in achieving that particular goal? A great deal of futures research is now being directed to the study of unintended change—to the second, third, or fourth order consequences of change.

A fourth dimension of this theory of social change comprises constraints and resources. Are there constraints in our basic biological make-up? in our environment? in our culture? Language

offers an example of what this means. The possibility of a sexless society can be imagined in Japan because the Japanese language has no sex gender attached to pronouns, unlike the English language which makes it difficult to refer to people without saying *he* or *she*. Can an English-speaking society ever become equal in sexist relationships? In addition to cultural-linguistic restraints and opportunities, there are technological restraints and opportunities. For me, the most interesting thing in society is the relationship between technology and human behaviour. I am interested in studying social change in terms of Marshall McLuhan's phrase: We shape our tools, and thereafter our tools shape us. Other futurists are interested in biological aspects — in genetic constraints and opportunities. Still others are interested in the environmental aspects.

Social indicators provide a way to monitor whether society is moving in the direction it is thought to be moving. I have listed 10 rather interesting indicators described in Johan Galtung's *The True Worlds*. Galtung has been working with a group of Europeans on social indicators that can be used to translate goals and assumptions into a form that enables us to say whether society is really moving in the direction we want. Futures research is relatively weak on this important question of indicators, partly because it is difficult to discern directions of societal movements in realms that are not quantifiable.

Regarding trends, it is important to distinguish different levels. What is true globally may not be true locally, and what is true nationally may not be true communally. The shape of curves representing these trends may be linear, flat, cyclical, spiral, or indeed impossible to visualize easily in a three-dimensional world, necessitating more complex mathematical representations which are difficult to conceptualize. Most futures research has thus far been restricted to the most obvious and simple sorts of trend. If a trend could not be plotted on a two-dimensional graph over time, futures research has had to forget it. If something is four, five, six, or n dimensional, it almost certainly is something that futures research has missed or has been unable to consider as a trend. There are, in addition, several units for which trend information might be compiled — like population growth, for which such things as density and fertility must be plotted differentially according to levels and types. Another unit is language. What are

the trends of language usage in Malaysia? Values. How can values be measured and operationalized, if indeed they can be? How do we know if they are changing or not changing? And so on.

Events are another body of raw material for futures research, and again I have suggested some categories. The population trend may be moving in one direction, only to be suddenly interrupted by an event—by a natural disaster or outbreak of disease, which presumably are bad events, or by manna which is sent unexplained, simply because we need food. There no doubt are good acts of God as well as bad, but all these things are regarded as beyond our control. There are accidents. There are political decisions. There are wars. There are assassinations. There are even terrorist acts that occur from time to time to interrupt the normal flow, unless terrorist acts become part of the normal flow. There also are fads, inventions, and other things which are unexplained trends, but which we interpret as events and try to anticipate.

Futurists have used numerous types of analysis, and I have indicated here two rather different types which I do not think have been used to any great extent, but which are interesting nonetheless. Age-cohort analysis is based on the notion that people who live in certain periods of time have their perceptions of the world strongly influenced by events occurring during the first 15 to 25 years of their lives. How they are fed, whether there is a depression, whether there is a war, how they are reared, whether they are breast fed, whether they go to school, what they are taught or not taught—all these things influence them for the rest of their life. Undertaking an age-cohort analysis might be of particular interest to Malaysia. Given the population distribution in Malaysia and the seemingly profound differences in attitudes of young and old people in this society, I would find it almost impossible to engage in trend prediction. Discontinuities between age cohorts are likely to be so great that trends will be the least important way of predicting the future and that discontinuities will be much more influential in shaping the future of Malaysia. If the events which tend to characterize age-cohorts were to be combined with other elements of analysis, it might be possible to get some very interesting notions of what the future might be.

In structural or class-structural analysis, attempts are being made to integrate Marxist theory with western social-scientific

theory. Instrumental violence can be differentiated from expressive violence, and Galtung distinguishes between direct violence and structural violence. The happy family with the authoritarian father, the docile mother, and the even more docile children is a good example of structural violence. No one is fighting and everyone seems to be happy with the authoritarian structure, but violence is built into the structure to assure that the father knows best and that everyone else does as they are told. People who like this system no doubt perceive it in very different terms, but that is not the point. The point is to analyze human relationships in terms of the power relationships of the people in the system.

Finally, we come to process — the way all these things are put together. I have concentrated on popular images of the future and on some characteristics of the increasingly conventional discipline of future research. It is important to link these things with decision-making. Malaysia 2001, Hawaii 2000, and other similar activities are attempts to ensure that entire populations are oriented towards the future in ways they have not normally been oriented so that individuals and societies can gain greater control over the future. Because it is necessary for every individual in a democratic society to be confronted with his or her image of the future and to be forced to think about it, futures activities in Malaysia should be strongly encouraged and should become a normal part of business, of government, of education. At the same time, futures experts and futures research centres are absolutely essential. But if the activities of interested citizens and experts are not intimately connected with political and economic decision-making, none of this is of any use. If citizen groups meet, clarify their images of the future, but are unable to do anything about it, or if futures research groups have tremendously good projections and predictions of the future which have no influence whatever upon political and economic decision-making, these activities become exercises in frustration. If there is to be such a thing as anticipatory democracy, links among all three activities must be maintained in a dynamic balance.

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First, Develop

Kahn likes lists — they enable embellishment that is illustrative, not tediously definitive, and they prod audiences into doing their own thinking to fill in the blanks. He begins by outlining opposing views on a number of subjects related to economic development and technological advancement. He then notes that development today is not as difficult as it was a century ago and cites several new forces which can facilitate development in the developing nations. He is quick to concede that rapid economic development introduces contradictions and creates tensions, but he seemingly advocates that it is hard to go wrong pursuing a course that enables a country to develop as quickly as possible. Basically, countries should develop at whatever the cost — environmental, psychological, social, or constitutional — for after they have developed economically, they can afford to repair the damage that has been done. This optimistic view is directly opposed to many of the signals — about pollution, justice, democracy, the right to dissent, and the distribution of wealth — coming from liberal advisers and commentators in the West, signals which Kahn feels are inappropriate to development planning in the nations of the Third World.

Two characteristic current views on technological and economic growth

The attitudes people have towards the following alternative positions on a number of key issues may determine their attitudes towards many other things. Thus, a believer in the alter-

natives presented first would regard a man who drops out as doing God's work and a project to improve productivity as a crime against humanity. Adherents to the alternatives presented second would take the opposite view: a man who drops out is committing a crime against humanity and a project to improve productivity is doing God's work. The reader should imagine that the following perspectives are advanced as a basis for programmes by two political parties, and he should choose between them, even if neither reflects his exact position. The first set of alternatives might be labelled as neo-Malthusian beliefs and conclusions; the second set, as post-industrial or super-industrial.

Basic model

Fixed pie We have a fairly good idea of what this world can provide. Therefore, the finite pie and the fixed bowl are good metaphors, particularly in thinking about non-renewable or limited resources, and we must share more fairly the limited supplies and room of Spaceship Earth. Otherwise, if the rich grow richer, the poor will grow poorer. Nor should we irresponsibly deny our grandchildren by using up or destroying the common patrimony of man.

Or growing pie No one knows accurately what the earth holds and can produce or what new uses may be made of new or old materials. But the growing pie, the expanding bowl, and the exercised muscle (or skill) are good metaphors. Within limits, the more one produces, the more one can produce. Furthermore, increases in productivity, wealth, and affluence anywhere often create conditions that allow or encourage similar increases almost everywhere.

Additional technology and capital

Diminished returns The new technology and additional capital investment that are necessary to extract marginal resources will vastly increase pollution, probably to lethal levels, and markedly accelerate the approaching exhaustion of resources. In any case, we shall have to cope increasingly with diminishing marginal returns and utilities, increasingly facing situations in which the effort required for the returns gained increases dramatically.

Or absolutely necessary New technology and capital investment are necessary not only to increase production to desirable levels, but to help protect and improve the environment, keep

resource costs down, and provide an economic surplus for problems and crises. In any case, if we are reasonably prudent and flexible, we will not have to contend with any really serious shortages in the medium term, and the long term looks even better. We must nevertheless be on the alert for far-fetched, unlikely, but potentially catastrophic events caused by mis-understood innovations or inappropriate growth.

Management and decision-making

Likely failure The rapidity of change, the growing complexity of problems, and increasingly conflicting interests will all make the effective management of resources, the control of pollution, and the resolution of other conflicts surprisingly difficult. Some sort of slowdown of change, simplification of issues, and centralized region-wide or worldwide decision-making is imperative, even if this requires revolutionary or other drastic actions.

Or probable success The systematic internalization of relevant external costs and the normal use of the price mechanism and other market mechanisms can deal with most issues. Some low but practical degree of public regulation and international cooperation can deal with most or all of the rest. With some possible exceptions, the level of management required is not remarkably high, particularly if the system learns from experience, even if slowly and painfully. Good management can increase the speed and accuracy of reaction and reduce the pain.

Resources

Rapid depletion Man is rapidly depleting the Earth's food, energy, and mineral resources and is even running out of space for getting rid of pollution products. Some key resources will soon be seriously depleted. Although most of these problems will not arise in catastrophic form until early in the next century, current pollution problems, food and energy shortages, and increasing general shortages of materials and resources are not only becoming critical in the short term, but are clearly the precursors of more disastrous events in the medium and long terms.

Or adequacy Leaving aside for the moment some very specialized and far-fetched issues, it would be possible to support more or less satisfactorily (at least by likely middle-class

standards) world populations of 20 or 30 billion at levels of 20 or 30 thousand 1974 dollars per capita for centuries. Indeed, we could do this largely using only current and near-current technology. Given likely technological progress, we should do much better. Furthermore, technological progress and large economic surpluses make it likely that we will be able to deal with these specialized and far-fetched issues if they arise.

Current growth

Uncontrolled, exponential, or cancerous Even if the current level of population and production could be sustained indefinitely, current exponential growth in both — the Gross World Product doubles every 14 years; the world population, every 33 years — will accelerate dramatically the approaching exhaustion of resources and our inability to cope with pollution. Indeed, unless these things are soon stopped by drastic programmes, an early and catastrophic collision with resource limitations or pollution constraints will be inevitable.

Or eventual transition to stability While such long-run projections are inherently uncertain, one can make a plausible case for the world population to stabilize in the 21st century at about 15 billion, for Gross World Product per capita to stabilize at about $20,000, and for Gross World Product to stabilize at about $300 trillion — give or take factors of, say, two, three, and four, respectively. In other words, world population should be between 7 and 30 billion, GWP per capita between $5,000 and $60,000, and GWP between $50 and $1,000 trillion.

Innovation and discovery

A trap New discoveries of resources, new technologies, and new projects may postpone the immediate need for drastic actions, but not for long. Such postponement will make the eventual collapse more severe and possibly even earlier. Prudence demands immediate restraint and cutbacks. There must be a basic change in values and objectives. The time for short-run palliation is past.

Or huge improvements New resources and technology often produce new problems and crises, but they can still be used to solve problems, improve efficiency, and upgrade the quality of life to a permanently high plateau. Even more important, they increase the toughness and flexibility of the economy and

society, thus giving us insurance against bad luck or incompetency.

Income gaps and poverty

Gaps increase Dangerous gaps in income are rapidly widening, and a worldwide class war or a series of desperate political crises is imminent. The likelihood of these tragedies is heightened by increasing wealth in the rich nations, the more so when they selfishly consume and even squander the resources obtained from the poor nations at bargain prices.

Or poverty decreases The next century will likely see worldwide abolition of most absolute poverty. Even so, some arithmetical gaps will probably increase until the middle or end of the century. Both the rich and the poor will get richer, but some will continue to be much richer than others. These growing gaps and this improved technology are precisely the things which make it easy to accelerate economic development for the poor.

Industrial development

A disaster Further industrialization of the Third World would be disastrous, and further growth in the industrial economies of the developed world would be worse. Therefore, the rich should halt their industrial growth and share their present wealth with the poor. Further, the poor nations should not sell their increasingly valuable resources so cheaply or rapidly.

Or must continue Industrialization of the Third World will and should continue. It is foolish to imagine that the rich nations will voluntarily share to the extent of their own deprivation. And it probably is nonsense to believe that the poor will be strong enough in the foreseeable future to seize the wealth of the rich by force. Nor can the poor nations benefit greatly from resources left in the ground.

Quality of life

Incompatible with growth Continued economic or population growth means further deterioration of the environment, destruction of ecological systems (particularly in marshes and wilderness), overcrowding, suburban sprawl, and the creation of a society suitable for automobiles, trucks, and planes, but not for human beings. We must change our priorities: market demand is not the same as need; GNP is not the same as wealth; high technology is not the same as the good life; automation and

appliances do not necessarily increase human happiness.

Or eventually high for all If appropriate external costs are not adequately internalized, growth can cause much unnecessary destruction of important values. But the key words are *adequate* and *appropriate*. And by whose criteria? Much of what some elites or esoteric groups consider destructive, many others consider constructive. Once there is adequate internalizing of appropriate external costs, according to the criteria of most members of society, the complaints may still be very shrill and visible, but they will be largely inappropriate or very specialized.

Long-range outlook

The current emergency is total Unless revolutionary changes are soon made, the 21st Century will see the greatest catastrophe since the black death. Large-scale damage is a plague to the environment and to the ecology of many areas. Billions will die of hunger, pollution, or wars over shrinking resources. Other billions will have to be held down by harsh authoritarian governments. Indeed, it may be better to have some die today than to have many die in the future. The crisis is grave, and some draconian measures may now be justified to alleviate the extent and intensity of the future collapse.

Or things are going reasonably well The 21st Century is likely to see a post-industrial economy in which the more desperate and seemingly eternal problems of human poverty have largely been solved or greatly alleviated. Most misery will derive from the anxieties and ambiguities of wealth and luxury, not from physical suffering due to scarcities. While many tragic mistakes and much suffering and damage will doubtless mark this historical transition to a materially abundant life for almost all, the ultimate prospect is breathtakingly superior to traditional poverty and scarcity. The post-industrial society and culture which will eventually accompany the post-industrial economy should be close to a humanistic utopia by most historic standards.

New forces for development

- Markets, capital, and technology available for development of indigenous physical resources.
- Export of guest labour, ie. labour goes where the work is.

- Export-oriented industries, ie. work often goes where the labour is.
- Tourism, and soon retirees and other foreign guests.
- Easily-transferable useful technologies and readily-available products.
- Examples and other useful institutions available, including foreign aid and transnational corporations.
- Exportation of pollution to Third World countries.

The process of development is not as difficult or painful as it used to be. In order to develop previously, heart and soul had to be committed to the development process. The most successful developers we know were the Puritans, the Calvinists. They had only two priorities—God and development. Incidentally, that is very close to China today, though not quite. Today, you do not have to commit yourself that way. The human personality does not have to be distorted to the breaking point in order to develop. A lot of other priorities can be concurrently pursued, but not everything can be pursued. Milton Friedman is fond of saying, 'There ain't no free lunch.' I think he is wrong. Many times there is a free lunch, but not every lunch is free. Some lunches must be paid for.

Listed above are seven new forces for development. I suspect little disagreement would be heard from Third World audiences on this list. When this was used as a basis for a talk to the professional society at the United Nations, I did not get much argument there, either. But rather interestingly, I would get a lot of argument from the economics faculties of the prestige universities in the United States.

The first and in some ways the most important force in many countries is whether there are markets available for their products. If the stagflation continues, Malaysia will be in trouble whatever its policies are. It is very important for Malaysia to sell its oil, its rubber, its palm-oil, and so on. The problem with wanting to develop rapidly is that commitments have to be made to some very unstable products, and tin is included among these. My own rough guess, which I think is borne out by Malaysian estimates, is that these materials, instead of constituting more than 50 percent of the Gross National Product, will be down to about 10 or 20 percent by the end of the century if things go smoothly. Malaysia takes a chance, but if it succeeds, it will no

longer be so dependent. Malaysia could not take this chance if the West did not want to buy its products. The enormous wealth of the Persian Gulf would be worthless without modern technology, tankers, and markets—none of which existed in the 19th Century, but all of which exist today.

Export of guest labour is not so important in Malaysia, but if it is asked why southern Europe grows so well, almost 10 percent a year, or why Mexico and much of Latin America grow so well, the answer is that they send labour to United States or Europe and the labourers send home a lot of money. This is not new in the world. The Vikings used to work for the Byzantine Emperor, and they all sent money home, too. But it did not work on the same scale, to put it mildly.

Export-oriented industries mean that the work is increasingly sent to the labourer. This is not necessarily primitive. South Korea and Taiwan are growing rapidly because instead of bringing Koreans and Taiwanese to Japan or the United States, the work is sent there and they export. This is new. Malaysia is getting this in part as a spillover from the Singapore phenomenon and in part on its own. I would say that the best thing Malaysia could do for rapid development is to go out and look for 'cast-off' western industries. Notice that I use the term, 'cast-off'. There is nothing wrong with such industries. Anybody who tries to start a radio industry in Japan today will be laughed at. Except for high quality hi-fi equipment, Japan does not make radios anymore. This is all done in Taiwan, Thailand, and South Korea. If anybody tries to start a radio industry in Singapore today, they will be laughed at as well. Singapore has passed this stage. But this does not mean there is anything wrong with going through the stage. It is a very rapid way to get ahead and to develop.

Tourism is one of the less pleasant ways to get ahead, but it is very effective. Tourism is very big in South Korea and Taiwan. Is it big in Malaysia with a million tourists a year? A place like Spain has more tourists than people: 35 million tourists a year, and only 32 million people. This creates development. Do you like it? No. Tourists are terribly unpleasant. Do you put up with it? Yes. The money is useful.

Regarding the transfer of technologies, I boasted to a Malaysian about the HP-65 computer I carry with me. It cost $795 and has roughly the same computing capability as a

machine I used in 1960 which cost one or two million dollars, filled an entire room, and had to have five or 10 people to maintain and run it. He laughed because he had the same computer. I was not one up on him. Fifteen years ago, it would have been terribly difficult to transfer this two million dollar computer with 10 people. It is no problem today.

In terms of the institutions available, the transnational corporation is much maligned, but I know of no institution in history which has more efficient methods of marketing, transferring technology, mobilizing resources, and giving good jobs, training, and so on. They will not do this free of charge, and it happens that unless you treat them well, they may not deal with you at all. The free market does not operate very well in Malaysia, so the transnationals have to be regulated. But the regulations need not be onerous. The deal can be mutually beneficial.

There are a number of additional forces for development which I did not include in the foregoing list. Free security is one of the most important of these. What was the major motivation for development in the 19th Century? What made people in Soviet Russia, Japan, China, and Turkey willing to give up everything for development? It was not standard of living. It was safety — national defence. If a country did not develop, it got invaded. It was just that simple. Today, of course, things are very different. There is no barbarian society or advanced society that Malaysians are worried about. Malaysians may be worried about propaganda or subversion from China, Russia, or North Vietnam, but these are very different from tanks crossing borders. Even South Vietnam was able to handle its subversion, which basically was suppressed by 1969, but they could not handle the tanks which crossed their borders. Malaysia does not have to worry about this. Malaysia did not earn it. Malaysia got it for free. By the way, it may not be true, but I think it is.

Contradictions and tensions in development

- Rapid economic development vs
  - education for self-fulfillment
  - equal opportunity
  - environment and ecology
  - fair shares (equality of results?)

- self-reliance and independence
- autarchy (or self-sufficiency)
- Rapid emergence of national identity vs. toleration of pluralism, diversity, and dissent
- Public order and technical efficiency vs. justice and participatory democracy
- Pelagian concept and policies vs. Augustinian concept and policies
- Individualism vs. conformity
- Communalism vs. integration vs. assimilation (vs. synthesis?)
- Experts and educated incapacity vs. common sense
- Central bureaucrats vs. regional bureaucrats vs. private decision-making and planning
- Intense ideology vs. weak ideology vs. pragmatism (vs. realism?)
- Self-fulfilling and self-defeating prophecies (eg. optimism vs. pessimism)
- Evolutionary vs. revolutionary change and innovation
- Technology (or project) assessment

In many countries of the world I notice a tendency to use the term, quality of life, and I have often argued with people about its use. But when I talk to government officials in Malaysia, Indonesia, or the Philippines, they tell me not to be confused. By quality of life, they mean standard of living. Just what you expected. Why do they avoid the term, standard of living? If they use it, they are criticized by liberals from the West for being GNP freaks, and they do not like the criticism. The western countries are rich and do not care about standard of living. The Third World countries are not rich and do care a great deal about standard of living. The term, quality of life, is used today in a completely frivolous way. It is not used in the basic way mentioned earlier where development really did interfere with the quality of life. Sometimes, you have to give up religion and other things which really count. But in the West today, quality of life refers basically to things other than the material. Having a house, two cars, a swimming pool, and a washing machine causes boredom, and anyone who is excited by these things is a fool. Well, this argument simply is not true in the countries of the Third World.

The list of contradictions and tensions in development is the

heart of the story. I stated earlier that it is easy to develop today, but it is not all that easy. One has to make sacrifices for development. Bob Jungk has indicated that there is a conflict between Eros and industrialization, between the principle and the practice of love and the principle and practice of the factory. There is something to this which is well known, for there are some serious contradictions and tensions in development. But when I talk to Malaysian government officials or to the few private Malaysians I have spoken to, I find they know everything on this list. It does not have to be explained to them. Mind you, this is not true of many of the people who advise Malaysia, nor is it true of some of the country's own intellectuals and students.

The first point on the list, rapid economic development, has traditionally been opposed to the six things immediately below it. This is not entirely the case in Malaysia today. If a young Malaysian is asked how he wants to be educated, he will say, 'To get a good job.' This is true for the Chinese and Indians, but is less true for the Malays. That is a problem, and Malaysians know it and want to change it. I think the education system is being organized so that Malays, too, will say that they want to be educated for a good job. Self-fulfillment and a good job are equal here. In the United States and in much of Europe, there is a quite different concept. People there have come to a point where to educate oneself has something to do with extreme joy, love for culture, sensory awareness, with things which Malaysians correctly leave to the private sector.

Equal opportunity. There is no country in the world in which development has been uniform. There may be a country in which conditions are very much the same throughout, but there is always one sector that takes off and becomes much richer than other sectors. One real problem of the Third World today is that the World Bank and other groups are putting too much pressure on them to have the poor catch up with the rich. This is always very difficult. In the United States, the South has begun to catch up with the North only in the last five years. In Italy, the South has not even begun to catch up. But, if the Italians had been told they could not let the North develop until southern Italy shared in this development, there would have been no development in northern Italy. The most rapidly developing area that I know of in the world is southern Brazil — 15 million people who grow as fast or faster than the Japanese. But there are 25 million people

in the Northeast who do not do as well. Should they stop development in southern Brazil to help the Northeast? As I see it, billions could be poured in, and it would not make much difference. It is very tricky. I would say that equal opportunity should be given to those who are looking for the opportunity. The peasants of northeastern Brazil can and do move to Sao Paolo, and the mayor of Sao Paolo says it takes them about three months to pick up the industrial tempo. Those who wish can do it. Not everybody can, but not everybody tries.

Environment and ecology. Except for Scandinavia, I know of no natural ecology anywhere in Europe. The entire ecology is artificial — influenced or made by man. It is a very good place to live. Rene Dubos, the Nobel prize winner, made the point that man has done better than God in many parts of the world. He is not blaspheming. I would say that if Malaysians are going to develop this country, they are going to spoil, ruin, or change a good deal of the landscape, and there is no reason they should not. If it is decided that pieces of the country should be preserved, then these should be put aside and preserved. But the rest should not be worried about too much. I would, however, make an important distinction between heavy-metal pollution, which kills people, and such pollution as unclean air and water. Most of the world's people are much more anxious to have schools, hospitals, and roads than to have clean air and clean water. I agree with them. People in the United States want clean air and clean water, but it is a rich country and can afford it. One of the sacrifices many countries will make for development, and I personally judge this to be correct, is to suffer 10, 20, or 30 years of this kind of pollution. Then, they can clean it up when they can afford to. This does not mean they should accept any unnecessary pollution. One of the great things happening today, particularly in Japan, is that ingenious anti-pollution equipment is now being designed. In many cases, it is becoming very cheap to operate without pollution. But if this happens, the Japanese may not send their factories here. They may keep these in Japan.

What about fair shares and the equality of results? I think the Malaysian government pursues an extraordinarily good policy. It says, as near as I can tell, that redistribution will be sought as fast as possible and that people have to earn it by working for it. There will be no gifts. This is an absolutely sensible policy. The questions of self-reliance, independence, autarchy do not really

apply to Malaysia, so I shall skip over them.

What about the rapid emergence of national identity? One of the great British historians once said: 'A nation-state is not created by speeches and catsup; it is created by history and blood.' I think this is a correct statement. We do know that totalitarian regimes can be created much faster than the nation-state, which basically is a European invention. North Vietnam was a nation-state; South Vietnam could not make it. Why? Because criticism was suppressed in North Vietnam. You do not create a nation-state by terror, but it is terribly helpful to eliminate the critics. I would think Malaysia has no interest in this. Malaysia will take its time in creating a Malaysian identity, and they will be right, but it will take a long time to have the intense kind of identity that exists in North Vietnam.

Public order and technical efficiency vs. justice and participatory democracy. Bob Jungk had a nice example which I will turn around and use the other way. He said, 'Dissent not only has a right to be said; it has a right to be heard.' I agree. He used the example of a caravan and said, 'We in Germany often talk about how the dogs bark, but how the caravan moves on.' The dogs, of course, represent dissent. Now, if you live in a poor society and the water holes are very few and far between, do you want to wait and consult with the dogs, or even some intelligent people, about which way to go? No, you have chosen your leadership, and they go for the nearest water hole, making dissent impossible. If you do not live in poor society, you can afford a small debate. But unless you live in the richest society in history, you cannot afford total debate. Sometimes, dissent is for the sake of dissent. Lord Randolph Churchill once made the comment, 'It is the business of the opposition to oppose.' This statement is true. But it is not the business of community to oppose. Surely, the members of the community want things done. In America, we have a problem. We used to be a very conforming society, so we had great admiration for the young people who were dissenting and we thought it was good to have three percent or five percent of society dissenting. Today, in the prestige universities, 98 percent of the students are dissenting. This is sick.

My own belief is that there will be a worldwide movement towards public order and technical efficiency. These are not necessarily at the costs of justice and participatory democracy.

but often they are. When I first discussed this subject about 10 years ago, I had a chart entitled, Order vs. Justice. My secretary kept typing it, Order is Justice. I finally decided that he was right. There is very little justice without order. Nevertheless, every social system has to produce a certain amount of justice, a certain amount of general acceptance and participation. The balance is very tricky. I will make a bet that the balance world-wide will move in favour of public order and technical efficiency. This does not necessarily mean fascism or authoritarianism. It just means that the balance has shifted.

Pelagius and Augustine were Fourth Century monks who set the stage for fundamental debate within Christianity for the next 15 centuries. The basis of the Pelagian concept is that if you allow a man to grow up naturally and without a bad environment, he will grow up to be healthy and decent. There are no bad children. There are only bad parents and bad environments. The basis of the Augustinian concept is best said by Sigmund Freud, who was probably one of the wisest commentators on human nature. He made three terribly interesting remarks in Vienna. The first remark, Civilization is repression, ugly and harsh, but I think it is true. I am not a Pelagian. I believe the baby must be helped to grow up. Babies are not known for tolerance, moderation, or good judgment, and they would destroy the Universe if they were hungry and the Universe got in the way of their food. Freud's second remark was, The child must be socialized at all costs. His third remark was, Now that a decision has been made to do the first two things, we should reduce the cost and effort of doing so. This is perfectly sensible, but it is the third, not the first, priority. You would not understand this today from western psychiatrists who literally have forgotten the first two remarks.

I will conclude by commenting on a problem, potentially serious in Malaysia and already serious in many countries, and leave the rest of the list of contradictions and tensions in development to the reader's imagination. The problem is that most of the signals coming from the West today are wrong. The western specialists and critics are talking about *their* problems, not *yours*. If you have to take signals from the West, go back to the 19th Century when people in the West understood the problems of development, not the 20th Century when they got it for free.

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problems of military strategy and national security to issues of
long-term cultural, economic, political, and technological
change.*

Looking at
Malaysia's Prospects

*Panero begins by outlining a series of approaches, techniques,
and subject areas which he has found useful as considerations in
economic development studies. Applying these to Malaysia, he
generates a list of basic conditions and realities which will have an
impact on the country's development efforts. He feels that
Malaysia has a lot going for it: membership in the Muslim world, a
stable political situation, vast resources with downstream possibi-
lities, and a small population with a solid urban base and high per
capita GNP. There are also a number of new possibilities for spur-
ring economic development in the country: converting Sarawak
gas into protein which could be used as the basis for a beef
industry; taking advantage of the country's location to go into
deep-sea fishing on an industrial scale; establishing international
links with Colombia, Indonesia, and the countries of the Middle
East; and making improvements in the efficiency and productivity
of present undertakings. Even so, Malaysia has many things
working against it: the fact that all the positive factors can quickly
become negative, the continuing isolation of many of the
country's people in rural areas, the high expectations of the entire
populace, the proximity to disruptive forces, the dependency on
volatile world markets, and the absence of a managerial class.
Added to these are several failure mechanisms which must be
constantly kept in mind: defending the country against internal
subversion and external attack; a breakdown of racial stability
and continuing imbalances among various sectors of the
populace; and a collapse in world prices for major commodities.*

Panero concludes by listing 10 things which he regards as absolutely essential for Malaysia to be successful as a nation at the beginning of the 21st Century.

Ways of looking

Classic studies or action looks It often is far more interesting to do an extraordinarily high-speed study then to sit down, systematically read the literature, and do a formal analysis of myriad details. If high-quality talent can be grouped to take a quick look, even for a short period of time, this can be much more valuable than what generally is thought of as thorough, comprehensive, and systematic analytical work. Many classic studies have completely missed the point and been 180 degrees wrong. Many classic studies are in fact book reports, compilations, or reference books, not real studies presenting a conclusion. Detailed analysis is required in some instances, particularly in engineering-based projects or scientific studies. But a classic approach normally renders an economic development study obsolete before its completion.

Overview-overflights These are quick, action-oriented studies having the objectives of rapidly appraising an economic development situation and generating new ideas to stimulate, improve, or accelerate this development. A high-quality team is gathered from mixed backgrounds and equipped with light aircraft to enable it to see as much of a country or region as is possible. These studies are very intense, often consuming 18 or 19 hours a day, and tremendous pressures are placed on the participants. In the debriefing, the self-esteem of the participants is at risk, and this further increases the pressure on them. Surprising creativity has very often been the result.

Qualities of study participants You must have people who can note discontinuities and the moments in time when the rules of the game have changed. Every person living in South Vietnam has noticed that the rules now are completely different. For many people, this presumably is a traumatic experience that will last a long time and have many effects, few of which are presently perceivable. The rules of the game have also changed in Angola, in Portugal, and for the Kurds. All these are obvious changes, but often the change is much more subtle. You must have people who have a good track record, people who have been right five or six times in a row. These are the ones who said

something would happen, and it did happen. No law of God or man says that if they have been right six times in a row, they will be right the seventh. But it is better to work with people who have good track records than with those who have mediocre or bad records. You must have 'intelligence' people who know what is going on. The literature about various countries is full of reports written by people who have never been to the country and who say all kinds of things without knowing what is going on or about any recent decisions which mortgage the country for 20, 30, or 50 years. This intelligence comes from people who have the insight to know what is hocking a place and what is changing, maintaining, or defending the status quo. You must have people with intuition who may not analyze things so much as see for some reason where a society has been and where and how it is going. Somehow, these people are very clear about such things, and they often are worth much more than people with great analytic abilities. You must also try to find people with vision who can give you a glimpse of something that might be or could be around. This could be a religious person, a scientific person, a very special person. Persons with real vision are rare, however, and often you must be content with trying to educate a team to provide these glimpses themselves.

Insider-outsider teams The outsider looking at the forest does not always see the forest, nor does the insider always see only the trees, thus making the outsider the more valuable person to have. The truth is that the outsider can sometimes see things the insider cannot and that the insider can sometimes see things the outsider cannot. The appropriate mix of insiders and outsiders and the creation of a language between them generally provides a third perspective that is quite different from the initial perspectives of the insider or outsider alone. It is always worthwhile to encourage insider-outsider mixes to get critical appraisals and new views, even on very old subjects. It is seldom worthwhile to rely on a single expert, particularly if you are not expert enough to know when he is telling the truth, shading the truth, or lying. Pairs or teams of experts may be used, but it is important to use experts in the same fields who have some hostility towards each other, not those who reinforce each other.

Being a professional student You cannot do these studies without being a professional student. In fact, it is necessary to be a professional child and to display those two basic characteristics

of children: asking the simple questions which often can never be answered; and learning quickly. What does it mean to be professional? The French put it this way: *La plus belle fille du monde ne peut pas donner plus qu'elle a* (the most beautiful girl in the world cannot give more than she has). A professional can make a mistake. A professional can fail. But a person cannot be guilty of putting less than everything into a project or study and still be called professional.

What is going on? It is very hard to know exactly what is going on, however crucial this may be. Valid studies must touch the pulse and tap the grapevine of a country and its people. The stories that are not told to outsiders by the local people must be known. This requires extraordinary sensitivity to the country and to the people. This means that many interviews must be carried out on a random basis with taxi drivers, bartenders, families, specialists, children, politicians, bankers, the lot. All sectors must be tapped to get a feeling of what really is going on.

Participation Everybody believes in participation. The most normal way of getting participation is to do polling studies or to invite people in to discuss things. Sometimes, this is called participatory democracy; sometimes, putting the workers on the board; sometimes, just being more advanced. It is hard to mix different cultures, to mix workers and managers, to mix bosses and labourers. It is hard to get people to behave normally in such circumstances. Participation really means understanding everybody's attitudes, ideas, and desires. To understand what these are, you must sneak up on people and eavesdrop. A worker will exchange very valuable information with another worker, but not with a manager. One technique for overcoming this is to get effective discussion going between different class or cultural groups in as relaxed and unrestrained an atmosphere as possible. If a person is adequately disguised, he is often able to draw out interesting and valuable information.

ABC areas In looking at nations around the world, it can be noted in many countries that three areas have great difficulty communicating with one another. For classification purposes, these can be called the A area, B area, and C area. The A area is urban, 20th Century, and expanding and has all the problems of modern urban society: tourism, overcrowding, slums, crime, pollution, equal opportunity demonstrations, and all kind of welfare issues. These A areas are closely linked with, and similar to,

other major urban areas in the world. The B area is rural, isolated, 17th Century, and struggling to get out of feudalism and into the 20th Century. Rural areas often are inhospitable and shrinking in population because of migration to urban areas. These B areas lack adequate medicine, dental care, policing, and money. Almost all of them are anti-government, anti-establishment, and alienated from the city. The C area, found in all developing countries, is the unexplored, unexploited hinterland that for one reason or another has been overlooked or ignored, as the Amazon and Siberia have been. Because of differences in interests, goals, and backgrounds, it is very hard for people in the A, B, and C areas to communicate with one another. A useful technique in studying a nation is to plot its A, B, and C areas on a map.

The balance sheet Another useful technique is to construct a balance sheet that mixes tangible and intangible factors and sets out assets and liabilities, strengths and weaknesses, pluses and minuses, trump cards and low cards, and advantages and disadvantages. One man's strength is another man's weakness; one man's assets, another man's liabilities. Thus, it helps to get teams, and even individuals, outside the structure of a team study to present their own balance sheets. All the contradictions can be incorporated into a final presentation which provides a basis for the appraisal of areas and regions.

Failure mechanisms No system can be properly studied without listing and analyzing the failure mechanisms. How does the system fail? What causes the system to fail? The appraisal of current issues in terms of failure mechanisms is required because the first goal of any study is, or should be, to reduce vulnerability. If a country wishes to take a step forward, it must first be sure that in taking the step it can maintain what it has. The priorities of business or government are often outlined as making money first, growing second, maintaining capital third, and reducing vulnerability fourth. I think the opposite is true and that the first priority should be to reduce vulnerability on a day-to-day, 24-hour-a-day basis. This must be the primary concern of any development authority. Second, maintain what you have. Third, grow if and when you can. Fourth, make money if you can.

Increased menu In most developing countries, the choice between projects is usually very simple. It is between *a* and *b*, between this and that. Only a small number of social and

economic development projects are really considered and, because something must be done, one of these few is chosen. Normally, the choice is made from a restricted menu that does not reflect the potential of the nation. A bigger menu should be prepared before decisions are made. The region, nation, and people should be studied to look for all possible projects, even contradictory projects with contradictory effects, in order to outline properly the available choices.

Technology transfer People often talk about the transfer of technology, and there are cases where technology transfers are feasible and easy. For example, small calculators can be put into everyone's hands, yet are almost as good as large computers. The airplane can also be transferred with ease. But the means of easily transferring technology for industrialization or for petrochemicals does not yet exist. Such technology is not on the shelf of some industrial supermarket. In the developing world, there is only one way to transfer new technologies: pirate a guy who knows the technology inside out and can teach it. This is the system used in the West. One company takes a man from another company, or a man leaves a company to form his own.

Sidewise in technology The best way to understand this expression is to think of technology which is neither the most modern in the world nor cast off, but is specifically appropriate to the area in which it is used. In a sense, it is indigenous technology. One normally hears the argument in the case of new mineral deposits: 'Let's develop this deposit with automatic equipment. There are no unions, so we do not need to use much labour. We could even make it more modern here than in the developed countries.' The counter to this position is that the people need job opportunities: 'Because there is unemployment, we should take the mineral out with hammers and chisels and employ as many people as possible.' The right answer to this debate is to adopt technology that is appropriate to the specific deposit — its location, the timing of the project, and the culture of the people. Strangely enough, everyone talks about appropriate applications of technology, but a correct example is rarely noted. Normally, the only projects carried out in the developing countries and the only techniques used are copies of western methods and techniques.

Values in development Because the values of individuals differ so considerably, values are always heavily challenged. If

one person says that we should try to increase the income of the people, another will say this can only worsen things. One man's good is another's bad. This conflict of values is always brought up by critics in the evaluation of any project or study. The only way to handle values in a study directed towards development is to set things out in terms of *their* values, *their* terms, and *their* judgments. Development work cannot be successful unless it is successful in *their* terms. Of course, this can be very complex. The values of Chinese culture obviously are quite different from the values of renaissance Muslim culture or of traditional off-shore Indian culture. The problem is one of perception: whose perception is used and what issue or problem is perceived. Still, everybody makes the mistake of not even asking about where the values are, whose they are, and what they are. But one predominant value is extremely hard to challenge: raising the standard of life where it is too low. This is the single reason for doing studies of this nature, and most studies are directed to stimulating a significant increase in the minimum standard of life. The minimum standard of life must include adequate medical and dental care, adequate food, adequate shelter, adequate clothing, and adequate trouble-shooting in case of disaster.

High morale It is said that success breeds success. Many more things can be done with high morale, enthusiasm, and energy than can be done if these are low. If morale is not high, it is important to create or generate a project which has the primary goal of generating high morale, enthusiasm, and energy for development. To get a job done, it is necessary to have a kind of disaster consciousness without having the disaster. For example, when a fire suddenly rages in a city or when a natural disaster destroys part of a town, everyone reacts immediately and cohesively to assist in straightening out the problem. The fact that people behave better than normal has been noted in many disaster cases. When there is a disaster, people pitch in, work hard, and cooperate with each other. In large-scale projects, this willingness to cooperate enthusiastically with others in large teams is imperative.

Undiscussed and hidden issues Undiscussed issues cannot be avoided and left undiscussed. In every community there are issues which everyone feels are better left undiscussed. In a study of Yucatan, Mexico, for example, it was noted that there

seemed to be a psychological barrier between the wealthy
people and the indigenous people. At one point in a very violent
meeting, it was suggested that the entrepreneurs and traditional
land owners of the area were practically a private club. In anger,
one member of this group said, 'Yes, it is called the *casta divina*,
the divine cast.' It turned out that while outsiders could roam
from one end of Yucatan to the other and never hear the expres-
sion, this group of wealthy landowners had for more than 100
years been known to themselves and others as the divine cast.
The undiscussed issue is always the issue that makes trouble. It
has to be discussed, resolved in one way or another, and
integrated in any development study. Otherwise, the study can
have no validity, and the resulting project cannot be viable.

Malaysia's prospects

+ Probably the single largest asset on the balance sheet is that
Malaysia is a member of the Muslim world at the right time. The
Muslim world is in renaissance and has extremely high morale
and enthusiasm. Some years ago, membership in the Muslim
club was of little value in terms of rapid social and economic
development. Today, the Muslim world is getting richer and
more cohesive. There are some very dynamic Islamic industrial-
ized states at the moment — Algeria and Iran, for example — and
Islamic nations are producing some top engineers, mathemati-
cians, and scholars. This membership in the Muslim world may
also provide additional protection for Malaysia on its northern
frontier. Any incursions would have to cross from the Buddhist
world to the Muslim world, and third parties may be hesitant to
do this. It also seems likely that Malaysia, because of its
membership in the Muslim world, has a unique chance to finance
almost any project.

+ Malaysia is a young country, and one advantage of being
young is that mistakes can be made and quickly corrected. In
older countries which stay with the same system year after year,
it is difficult to reshuffle bureaucracies, modify institutions, and
correct errors.

+ Malaysia's political situation has stabilized with the forma-
tion and operation of the National Front. The difference between
politics today and politics in 1969 demonstrates this greater
stability. Malaysians believe that the National Front works, and
to this extent it does work. The National Front seems to have a

great deal of endurance and popularity, but of more importance is the fact that it looks like the right coalition for the future.

+ Malaysia is the world's leading producer of three basic international commodities—rubber, tin, and palm oil—and all three have great downstream possibilities. Because almost nothing has been done to process these commodities inside the country, these three industries have high potential for further downstream activities.

+ Malaysia has at least three additional international products with downstream possibilities—timber, oil, and natural gas. Timber has a long history in the country, but little has been done to develop a large-scale timber products industry. Gas and oil are new, but here again, Malaysia has the resources, particularly in Sarawak where large reserves have been discovered, and the possibility of exploiting the resources and working these downstream. There are also all kinds of miscellaneous industrial products that can be made from metals other than tin, as well as other agricultural products, not to mention the continuous development of just the agricultural sector.

+ Malaysia has large, unexplored territories that have great energy, mineral, and agricultural promise. Sarawak alone is almost the size of Peninsular Malaysia, and its interior is virtually unexplored. In fact, in terms of core borings and scientific and technical analysis, even Peninsular Malaysia has a lot of unexplored land in the interior.

+ Malaysia has a small population. Malaysians keep talking about a big population getting bigger, but the country has the advantage of having a small population and this makes a big difference. Columbia is quite similar to Malaysia, having roughly the same resources and Gross National Product. Its problem is that it has twice as many people.

+ Malaysia's GNP per capita is more than US$500, so it cannot be called a poor country, even though there are disparities everywhere. Malaysia can sit still on this base of wealth or use it as a trampoline for further expansion and development.

+ Malaysia's strong emphasis on education must be regarded as an asset because the main resource of any country is its people. The coming generations will presumably be more capable and better equipped than the past generations.

+ Malaysia has a solid urban base as yet unspoiled. The main urban centre, Kuala Lumpur, has been inundated with new

immigrants from rural areas, but it remains a city of well under one million inhabitants. It may be possible to build new cities as development poles and to conserve the qualities of Kuala Lumpur in the future. Contrast this with Bogota, which in less than 20 years grew from 500,000 to more than four million to overload even the possibility of delivering services.

It should be understood that most assets are two-edged swords and can be liabilities. Rubber is a great asset, but it is also a great liability because the nation's economy would be extremely vulnerable to failures of one sort or another if the bottom were to drop out of the market. The same is true for tin and palm oil. The same is also true for the country's youth. Youth can be a great asset, but it can sometimes be a great liability. For practical purposes, it must be assumed that the first liability on the balance sheet is that all assets should be considered as possible liabilities.

— The delicacy of the racial balance persists, and to some degree the conditions and attitudes of 1969 still exist.

— Rural isolation continues to develop inequities and alienation.

— The expectations of the general population may be significantly higher than the capability of the government or the development process to satisfy — competency and enthusiasm notwithstanding.

— Malaysia is in close proximity to outside disruptive forces and located in the centre of a somewhat disruptive region.

— Malaysia is a long distance from the markets of the developing world. Malaysia also is presently dependent on world markets of relatively small size for materials which are beyond the control of Malaysian policy.

— Malaysia has a limited managerial class with limited skills. The basic economic and managerial attitudes — of the private sector, the business sector, and even the political sector — are short-term in orientation. The belief adopted is that a bird in the hand is worth two in the bush, not that many birds in the bush are worth much more than a bird in the hand, which often is true in the process of nation-building.

— Malaysia has new problems and new issues that arise from success, like unemployment, low death rates, urban crime, urban welfare — all the things that show up when a country has money and can spend it in capricious ways.

In addition to the foregoing assets and liabilities which are the

main facts of Malaysian existence, there are a number of additional possibilities. A decision has been made to exploit a portion of the Sarawak gas reserves for the production of liquefied natural gas (LNG), and many discussions have been held regarding the development of petrochemical plants to exploit the gas. It must be remembered, however, that LNG and petrochemical facilities require capital investments of at least one billion US dollars and supply a very competitive market. Moreover, a remotely located petrochemical industry producing solely for export is highly dependent on world prices and vulnerable to market fluctuations. A large-scale petrochemical industry should be its own best customer and should use only a small portion of total production capacity for export. The alternative possibility is to take all that gas in Sarawak and build a petrochemical plant to produce one thing only—not LNG, but protein. This protein could be used as the basis for developing an export cattle industry. Malaysia sits half way between two of the world's biggest coming beef markets, Japan and Iran, neither of which at present has any way of producing beef itself. If Sarawak gas were treated as relatively inexpensive or cheap gas, Malaysia would have an advantage over almost any other beef producer.

+? It is also possible that a large-scale deep-sea fishing industry could be developed to operate in the Indian Ocean and the South Pacific. Sending Malaysian fishermen further out to sea has already been discussed as one way to ease unemployment among fishermen during times of recession, but Malaysian fishermen do not want to go out further. Moreover, deep-sea fishing is not the work of traditional fishermen: it is a white-collar job done industrially by college graduates. Malaysia could build a deep-sea fleet to roam the Indian Ocean and South Pacific at will, and with its both-coast advantage establish a very big business.

+? Tourism has by no means been fully exploited. There is the feeling that tourists are not the nicest people to have around, but Malaysia has a large number of uninhabited small islands off the coasts of the Peninsula, Sabah, and Sarawak which could be turned into the isolated disneylands that tourists seem to like.

+? New international links are to be developed. For example, it would be very interesting for Malaysia to establish a link with Colombia, which has made a lot of mistakes. Malaysians could exchange a lot of discussion about mistakes and find it useful.

There are advantages to establishing new links with the United States and Japan. There also are great possibilities of interaction with Indonesia because of language and proximity, particularly to Sumatra which is mineralized, underpopulated, under-explored, and a long way from Jakarta, and which offers interesting joint-venture possibilities. But most of all, there are the new links to be forged with the Middle East. There no doubt will be a heavy build-up of air traffic between Kuala Lumpur and places like Tehran, Riyadh, and Algiers.

+ ? Malaysia is filled with potential for improved efficiency and productivity. Almost anyplace one looks, things can be found which need to be sharpened up a bit. This requires switching the ideology from generating jobs with the simple objective of keeping people busy to increasing productivity, efficiency, maintenance, automation, etcetera. Additional training can be provided for the new jobs that will result from the full-scale development of Malaysian potential.

What are the failure mechanisms? What can go wrong? The most important failure mechanism is the inability or lack of will to defend the nation's frontiers, goals, and plans from hostile attack or internal subversion. Malaysia is now faced with some severe challenges, and the challenges will probably be more severe in future. In fact, the more successful Malaysia is in development, the more challenges it will attract and the more willingness it must have to defend itself against such challenges. Malaysia will have to programme itself for hostility.

— ? The second thing that can go wrong, of course, is a breakdown of racial stability because of increased inequities, because of a lack of communication and cooperation, or because of sub-limated reactions and attitudes. This can be thought of as the possible recurrence of the 1969 failure mechanism, with or without communist overtones. If someone looking for Malaysia's Achilles Heel is malicious enough to put a budget together to go after it, the target will be the racial situation and its inequities.

— ? The imbalances between communities—urban and rural, educated and non-educated, high income and low income—all have racial overtones and are likely to become more aggravated unless something concerted is done to counter the trend.

— ? Another failure mechanism would be a break in the external prices of basic products occurring at a time of great expectations and entraining depression, unemployment, and assorted related

problems.

— ! A fifth failure mechanism might be called nation un-building or disintegration: Sarawak goes independent, for example. Look at Argentina which 20 years ago was an active, dynamic, open, thriving society, but today is stagnant, deteriorating, and extremely depreciated to the point, some say, of civil war.

There are also a series of things which would have a considerable impact on Malaysia, if they occurred, but which are remote as immediate or even distant possibilities. The Kra Canal will not be built. The construction costs are too great, and no one will ever put that much money in Thailand again. Neither will the Kra oil-transhipment pipeline, sometimes known as the Marubeni project, be constructed. That, too, requires too much money. Another project that will not be undertaken is deepening and widening the Straits of Malacca as the primary ocean transport trunk. This would involve Singapore, Indonesia, and Malaysia, but will not go ahead because there is no way to generate the revenues that would justify such a massive capital expenditure.

! Singapore will not go away. Although confronting some extraordinarily heavy economic challenges at the moment, Singapore has a fine record of adapting and adjusting to the hard facts of life. The island republic will continue to develop and will act as a development pole for a long time.

! Indochina probably will not open for investment and development and thereby provide Malaysia with a bonanza. The Indochinese mess can be counted on to continue for quite a while, and this means the oil in the Mekong will not be developed in the immediate future.

! The importance of the Middle East and OPEC will not be significantly reduced. Instead, their importance will gradually increase over time.

! China is neither expansionist nor aggressive, and Chinese excursions which would frustrate Malaysia's plans are not to be anticipated.

! A number of things will not happen in Malaysia itself. There will be no recurrence of 1969 — everybody had a pretty good fright, and no one is anxious to reopen racial antagonism to that extent again. There will be no failure of basic prices — basic prices on a slight increase are here to stay as a worldwide condition. There will be no failure of ability to defend the country internally and on the northern frontier. There will be no failure of

management.

Many of the necessary managerial skills are innate in Malaysia, and if three, six, or nine months' training can be given, a lot of people can be turned into managers. But this does not refer to Chinese-style managers, because Chinese management is short-term in orientation. Management with a long-term orientation is needed, and some of the managerial types missing in Malaysia and required in future should be identified.

- the explorer, who goes out and finds new possibilities, new businesses, and new areas of activity.
- the scout, who runs ahead of a company or development monitoring vulnerability and checking out new horizons to provide an early warning system of threat and opportunity.
- the project manager, who carries a project through from beginning to end with honesty, integrity, and dedication, continually reviewing and equilibrating the various forces at play.
- the ambassador, who does not generate enemies, but makes friends for the enterprise, business, or development project as it progresses.
- the coach or trainer, who can take 50 men and, with his interest, powers of communication, and ability to inspire others to learn rapidly and work together closely, turn out in a short time a team with a highly complex operation.
- the communicator, who can really get across the cultural barriers. Many people speak a variety of languages, but have nothing to say and therefore nothing to communicate. The primary requirements of a communicator are having something to say and the ability to communicate it.
- the answer man, who for one reason or another sits up all night studying the books, the numbers, and the various things happening in a company and knows all the answers to any question that might be asked. In some cases, these people are worth more than computers.
- the chairman, who has the power to balance all the desires, politics, forces, and alternatives at play in a large-scale operation. This is the person who can sit back, take in all the figures, and make the decisions that keep a large team moving in the same direction.

For Malaysia to get to the year 2001 with any semblance of relaxation that is, with any sense of success in its own terms or in

terms of the many cultures present in the country, a series of things are very clearly required.

- continued stability.
- continued growth.
- continued integration of the community.
- continued emphasis on the downstream development of existing industries.
- continued exploration and development of new industries.
- strong territorial defence.
- new international links.

And then three special things are required.

(1) The first can be called spreading the wealth, although nobody likes to say it quite this way. This does not mean handing out money all over the place. This means spreading the wealth of medical services, dental care, schools, newspapers, and even some of the luxuries.

(2) A second key element is finding the road to effective participation. This is hard to do because people normally do not have a great desire to participate. They have not been trained to participate, and they in fact do not want to participate. They have been trained to stay invisible. A lack of participation often results, however, in actions which could be called involuntary, or on occasion voluntary, sabotage. Non-participants, and this applies to workers, to rural dwellers, and to disaffected segments of the community, are perfectly willing to do something detrimental, even detrimental to themselves, just to get back at the system and to show that the people running the system are not so smart.

(3) The third thing Malaysia needs to jump into the next century is to switch from being a defensive society to being an offensive society. Malaysia needs confidence, courage, and energy. Malaysia has a great deal going for it — it has resources, it has infrastructure, it has talented people. All Malaysians really need is encouragement, the encouragement to take the future into their own hands.

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People, Government, Business, and Myth

McHale looks at fundamental trends in Malaysia to make some predictions about what things will be like in the year 2001: that the population will have a higher proportion of people in the productive age groups, be more affluent, literate, and experienced, and have a broader world view; that the government is likely to be more involved in welfare maintenance, more stringent in the regulation of business, and more reliant on technical inputs; and that more business operations will be corporate in form, technologically complex, and dependent on a managerial group. Nothing very surprising, but the way these things come about will in large part be determined by certain basic myths which are accepted by society and the individual and which will act as forces to motivate or impede. He implies that a concerted inquiry into the nature and content of these operative myths should be undertaken. McHale also feels that new technical developments and the adaptations to these will be of great importance. He cites two examples of developments which could radically alter the complexion of the economy and the diet of the populace — single-cell proteins and high fructose corn syrup — if Malaysia were to enter into their production.

Many people believe that their future will be better and that their children's future will be better still. It is this orientation which gives some substance to the idea of trying to look down the line at what a better society and better polity will be. My qualifications as a futurist are rather weak. I am an economist, a

part of that professional group in bad repute these days, apparently because most of our crystal balls have been very badly clouded or cracked. I also am interested in history, but understand from many people dealing with the future that the past is no longer as relevant to the future as it was. Perhaps this is so, but I like to think that the past gives us an understanding of certain fundamental forces that we cannot ignore without bringing peril to the way we project into the future.

It is difficult to peer into the future. There are many surprises that many of us cannot anticipate; there are others that none of us can anticipate. Nevertheless, we can look into a number of areas and have a fairly strong sense of confidence that our predictions will, unless some unusual things obtain, approximate the future. In looking at Malaysia in the year 2001, this can certainly be done in the field of demography. The likelihood of a significant change from present patterns always exists, of course, but we can look forward to a situation in the year 2001 when Malaysia will more or less have 25 million people. Perhaps more significant than this quantitative fact is that the quality of the population is almost certain, no matter what else intervenes, to be different. I am speaking not in terms of high quality or low, but of the types of individual that will make up this 25-odd million. The population of the future will be different from the present population and from the past population. One certain thing is that the age structure will change and that a higher proportion of Malaysia's population will be in the labour market in the year 2001. There will be a bulge of people coming into the age groups which normally are productive and working. The population will be more literate, and it will be literate in a variety of languages. The population, or the educated and literate element of it, will possess more skills and far more experience in terms of both training and work. The population will have a vastly increased number of people who have a vision of the outside world which is larger and no longer circumscribed by the village or by a relatively small geographic area. It is also almost certain, if no major catastrophe intervenes, that people will be far more affluent than they are at present. If patterns continue along the lines of the past 10 or 15 years, per capita income based on 1975 prices will be roughly $3,000 by the year 2001. This is essentially a doubling of real income.

Basic changes in economic circumstances will result in other

changes for the population. There will be a significant shift away from the basic dependency on agriculture. The likelihood, regardless of what happens in land resettlement programmes, is that agriculture will constitute nothing more than a minor component of the overall economy. By minor, I mean that agriculture will constitute less than 25 percent of Gross Domestic Product. The logic behind this supposition inheres in what has happened here over the past 20 years. Productivity will increase on an absolute basis in terms of agricultural output, just as the amount of land under cultivation will increase. But labour utilization on the land probably has already peaked, and agriculture as an industry will need no more workers than it now has. This is already the case in a number of highly developed agricultural enterprises. The productivity of the individual workers in the rubber industry has increased from, say, 500 pounds a year to close to 2,000 to 3,000 pounds a year in many areas. Palm oil is less labour intensive than rubber, and as Malaysia shifts to higher production of palm oil, fewer people are used per unit of output. Significantly, the ability of the individual to work larger and larger areas of land is increasing as new technology comes in and as agronomic advances take place. This suggests, of course, that a decreasing number of people will be living in rural areas in the future — there will be a continuous de-ruralization of Malaysian society. It has been said that Kuala Lumpur is still a pleasant city, is nice to look at, and does not have three or four million people. But many remember when Kuala Lumpur was a quarter its present size, and its growth can be seen as a dramatic increase from a small base. The fact is that an urbanization pattern has been developing and will probably continue into the future.

What will be the implications of all this for government in the year 2001? It is difficult to predict what government will be like in five or 10 years, let alone 25, but certain likely aspects can be pointed out. For example, it is likely that government will be much more important in welfare maintenance. It is also likely that government will be more important in setting the internal rules of the game for business. We have already seen a changing climate in terms of both internal and external investments. This tendency, and I make no value judgment, is almost certain to continue. As far as the location of industry, more major decision-making will be done by government. It is also likely that the government will be more dependent on technical

inputs. This is an important point. As governments become increasingly dependent upon people who have specialized skills, it is less possible to rely on the philosopher-king type of leader who can listen to every problem and make correct or at least good decisions regarding them all. Leaders will have to have not only the traditional advice of the lawyer, but increasingly the advice of the engineer, the economist, the ecologist, and other experts. Consequently, government will be more, not less, susceptible to the dangers of having the specialists on top, rather than on tap.

What does this mean for business over the next 25 years? Looking into this cracked and cloudy crystal ball, I can also make a number of observations that I think will be likely developments. One, of course, is the increasingly larger size of business and economic organizations. Malaysia, in the recent past, was largely dominated by plantations and externally organized and oriented corporations that went into the extraction of metals like tin. After independence and continuing to this day, there has been an increasing use internally of the corporate form of enterprise. This is a dramatic shift that requires a wide range of cultural adaptations. Frequently, such a shift cannot be made in all sectors or in all parts of a country. But the magnitude of the opportunities, together with the requirements for efficiency, now demand that the factors of productions be organized in a corporate form, whether this be in the public or the private sector. In addition, an increasing number of business operations are moving at technologically higher levels of complexity. It is no longer a simple matter of doing one or two simple mechanical operations to put something in a can. Increasingly, the functions performed in a factory operation have to be broken down to enable specialization. This complexity means that an increasing number of skilled supervisors and engineers have to apply a higher level of the technical skills available to industrial or business operations.

This reflects another aspect of business that can be expected to continue in Malaysia: an increased dependency on the external world economy and on external technical developments. In the past, particularly during the colonial period, productive energies and exports of then the Malay states were largely geared to the production of relatively simple processed commodities. Some agricultural skills are necessary to grow a rubber tree, but these are limited. Not much training had to be provided

to the person growing rubber during the early part of the century. Similarly, tin can be extracted without too much machinery. A person could go out on a dulang washing operation and extract tin from streams; even hydraulic mining was very simple. This is not going to be the pattern in the future, however. In fact, it is not the case now. Increasingly, business operations—and this includes productive operations, as far as the agro-industrial business is concerned, as well as all the trading operations—will be dependent upon external technology and susceptible to rapid shifts in external markets. We already know the high sensitivity of rubber prices to events in places like Akron and to policy decisions in Riyadh, Teheran, and the Hague.

Another aspect to look forward to as far as business in the year 2001 is concerned is an increasing dependency on, and perhaps an anticipation of direction by, a managerial group rather than an entrepreneurial group. History suggests that this phase will be followed by almost all developing countries. The entrepreneurial skill of the man who puts his money into a venture is rapidly superseded by the entrepreneur's need for specialized knowledge in so many areas that he has to find the specialists to fit into several slots to handle the flows of money, the credit arrangements, and the increasing dependency on specialized financial services. In the past, one, two, or perhaps three people possessed all the skills necessary to run a business. As business grows larger and more complex, this is no longer possible and increasing specialization becomes necessary. Regardless of whether the trend is towards or away from the state-corporation type of business, all these patterns are likely to continue. The depersonalization of business associated with this will occur whether the patterns of development are inclined towards socialism or free enterprise.

Within these predicted patterns of development, there are many alternative ways in which the internal patterns can come about. Essentially, these are dependent upon the individual—upon the individual's mind and in aggregate upon the people's mind—because government and business are essentially servants of the people. This is true whether we adopt the rather pessimistic attitude that individuals are not the least bit interested in this or the optimistic attitude that the great wisdom of the many can be tapped. The fact is that the repository of the future is in the minds of people, both

individually and in the aggregate. It is important to remember that all institutions of government and business and all functions of such institutions are ultimately tied to the minds and the ideas of individuals. Given this, what will be the impact of individuals on the evolving patterns in the areas outlined above? I suggest that there are some questions which we are quite capable of perceiving at present, which can be answered, and which will emerge in succeeding years to give this pattern a reality.

The first question, really a set of questions, is: What are the people's perceptions of the good, the possible, the attainable, and the comfortable, and how do people perceive their future in Malaysia in answer to these questions? These questions will be answered, whether consciously or not, and we should perhaps make certain that the questions are always asked. These questions are closely related to the essential operative myths that Malaysian society will accept. In the United States, for example, the myths of upward social and economic mobility are very strong. Sometimes the reality differs, but Americans have by and large been brought up with the myths that each child can grow up to be a president and that each poor man can one day be rich. These myths are a powerful motivating force and these differ from the motivations found in many other societies, particularly in England. In fact, one reason for England's problems today is that there is no such myth to act as a generating element in working out the economic future. What about the myth of egalitarianism? Is it present? Will it be strong? Many societies have a basic commitment to a hierarchical structure that is encased in a variety of ways, but still enables insistence that each man is equal in terms of his participation and his individual self-worth. It is peculiar to see this in some societies which have always been considered extremely hierarchical or autocratic. I have lived in Saudi Arabia for the better part of four years and have been amazed by that society's commitment to egalitarianism, which is perhaps stronger than in any other society I have seen. The feeling of individual self-worth is impressive. This of course is partly an element of Islam, the Mesch, and the Arabic desert, but it is a powerful myth in terms of ordering their priorities and objectives as they move towards industrial development today. How long it will last is another question. Another myth is the power or weakness of the nation and its leadership. It is important in determining the extent to which people will be moti-

vated to pursue their own internal development and their integration with the outside world. These questions cannot be answered at this point in time. But as long as the questions are before people, we will ultimately see some of these playing a critically important role in shaping the future that will be Malaysia's in the year 2001.

One final and important point should not be lost sight of, and this is the level of technological adaptation in Malaysia. In the past, Malaysia has adapted rapidly and effectively. The natural rubber industry is a good example of this adaptation, as is the government policy to promote the development of the palm oil industry in response to changes in the external world. But this suggests that many times it is necessary to run to stand still. As a matter of fact, in looking at the natural rubber industry and all it has accomplished, it is wise to realize that both relatively and absolutely, in terms of constant dollars, it is far less important today than it was 25 years ago. The economy is rapidly diversifying, but there are two additional technological developments coming into the picture which require full evaluation for possible exploitation.

At present, some very dramatic work is being done on single-cell proteins. I do not advocate charging into this because the economics at this point in time might well be negative, but it is possible for Malaysia to use its natural gas or its oil to produce a single-cell protein which would be of tremendous value to the world and as a possible feedstock not only for a cattle industry here, but for people as well. Malaysia is right now facing a situation in which it could, if it wanted, become a major world exporter of proteinaceous foods in five or six years. Again, this is technically possible, but surrounded by too many uncertainties to know whether this would be economically viable. This type of thing keeps occurring in the world's technical developments, offering opportunities on the one hand and challenging established patterns of productivity on the other. Another product which might be very important is high-fructose corn syrup. This is something that is only three or four years old, but it will have an impact on Malaysia's developing sugar industry. An enzyme has been discovered that will convert starch — and corn starch or sago palm can be used as the base feed — into a fructose sugar that is sweeter than sucrose. This is then mixed with glucose as a sugar replacement, and production is already commercial in

many parts of the world. It is technically possible for Malaysia, given its resource pattern, to go into fructose sugar production, but the economics of so doing are again uncertain. Still, if Malaysia moved into these two areas, the entire food balance could shift over a period of 10 to 15 years. I mention these examples to re-emphasize the fact that technology, which of course is now universally available, will constantly impinge upon the shape of Malaysia's future, directly affecting people, government, and business, as well as the myths governing the possible and the attainable.

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Deliberate National
Development Decisions

*Roxas feels that Southeast Asia's planners and leaders must learn
to control and manage those aspects of development which here-
tofore have been largely ignored and left to develop spon-
taneously without the benefit of planning and support. To set the
stage a bit, he points out that although the population of South-
east Asia grew from an estimated 10 million in 1800 to more than
300 million in 1975, a period of 175 years, another 300 million will
be added in the next 25 years alone. In the past, wet-rice agri-
culture settlements have absorbed most new entrants to the
labour force and supported high densities of population. But it
now appears that these will soon be saturated and that agri-
cultural land will provide full-time employment for only about 28
million of the total work force of 200 million expected by the end
of the century. Nor will capital-intensive development projects,
which have been attracting the bulk of development finance and
providing some employment opportunities, pick up the future
surplus of new entrants to the labour force. The one sponge
remaining is the general category of small- and medium-scale
manufacturing and service operations that are labour-intensive
and well dispersed in rural and urban areas. The problem is that
these are precisely the organizations which have had so much
difficulty getting financed in the recent past, and as a result they
have not been developed. Roxas says the reasons for this are the
clear bias of financial institutions towards capital projects, which
fit into a neat paradigm, and the absence of the technology and
terminology to make non-capital projects bankable. He feels that*

*this bias must be eliminated and that the technology and termino-
logy must be developed to make bankable the projects that are
intensive in labour, systems, and organization. Given the
population-occupation crunch expected before the end of the
century, this is not simply desirable. This is imperative.*

In a long-term prognosis, one can take either of two views: that
of the uninvolved spectator attempting to predict what is most
likely to happen, or that of the involved participant determining
the factors that might be controllable in the future course of
events and the ultimate design that might serve to guide the
management of evolutionary development processes. The dis-
tinction recalls the older dichotomy between *laissez faire* and
dirigiste predictions. The choice of viewpoint that is more suit-
able for the last 25 years of this millenium is of course a judg-
ment about the extent to which deliberate management will
influence the future of this region. I predict that deliberate
national and regional management decisions will influence the
future course of development in Southeast Asia to a far greater
degree in the next 25 years than in the last 25 years. This really
says two things: first, that the perception of how economic,
social, political, and human processes work in reality is better
than it has been in the past; second, that the extent of control
exercised by leaders and managers of affairs in Southeast Asia is
more effective now than it was in the past.

If the future of Southeast Asia is to be more subject to
deliberate management than it has been in the past, the
prognosis of the future cannot be entirely mechanistic. This
leads to another prediction — call it a modest technological fore-
cast. In the next 25 years, the paradigms which development
planners in Southeast Asia will use for defining development
programmes will not be so much the classic paradigms of firms
and industries, but the more ecologically relevant paradigms of
regions, human settlements, and ecosystems. This takes a view
that is more organic than artificial: the human settlement, or the
ecosystem, is taken as the unit of analysis, not the firm, industry,
or labour force. This view also involves reliance upon new
factors that will probably be at work: increasing awareness of
processes and systems, and perhaps a better understanding of
how they work; changes in organization for the management and
control of such processes as population growth, geographical

movements, settlement patterns, and the evolution of social, economic, and political systems; changes in the world environment; and a determination of the points at which new factors will affect the course of development within countries in the region, as well as of the residual forces that will evade management and control and inevitably assert themselves in the emerging future shape of the region.

The absorptive sawah

In 1800, Southeast Asia had about 10 million people: Java accounted for about one million; Burma for about two million; the Malay Peninsula for only a quarter million. In the century and a half up to 1950, the population grew tremendously. By the quinquennium 1916-20, the population had leaped to 84 million; by 1936-40 to 120 million; and by 1956-60 to about 188 million. People swarmed over the more fertile areas over deltas, alluvial plains, and volcanic cones, settling particularly in areas where wet-rice agriculture could sustain high concentrations of people. This wet-rice agriculture economy was capable of sustaining population densities of more than 100 persons per sq kilometer. The densities would tend to grow in settlements to about 125 persons per sq kilometer and then spread out. Wet-rice agriculture needs this density because the pattern of labour utilization involves peak demands during transplanting and harvesting.

Nutrition densities, computed by figuring the average number of persons per rice-hectare per annum, are indicative of these settlement patterns:

Southeast Asia Nutrition Densities
(Average number of persons per rice-hectare per annum)

Quinquennium	Burma	China	Siam	Java & Madoera	Philippines	Malaya
1916-20	3.04	4.32	4.10	10.18	7.73	—
1921-25	2.94	4.13	3.88	10.55	6.60	13.86
1926-30	2.82	3.98	3.88	11.12	6.65	15.15
1931-35	2.94	4.05	4.03	11.37	6.82	15.86
1936-40	3.09	4.03	4.30	12.26	6.89	17.35
1946-50	4.94	5.19	3.95	14.58	9.64	17.79
1951-55	4.94	7.66	3.21	14.58	7.91	20.26

Source: E.H.G. Dobby, *Southeast Asia*, London: University of London Press LTD, 1950 (copyright) p. 387 (converted to persons per hectare)

The terrain of the Malay Peninsula was more suited to dry agriculture and specialization in plantations and mining, hence the very high nutrition densities. At the other extremes were Thailand, Burma, and Indochina—the rice-surplus areas before World War II. Over the period, nutrition densities rose everywhere except Thailand, and by the 1950s, settlements were well established. The heaviest settlement in Southeast Asia was in middle and north Java, lower Siam, and the Red River Delta where densities were greater than 600 people per sq kilometer; areas in lower Burma, the lower Mekong, central Luzon, and the Visayas were also heavily congested. In Thailand, Indochina, and the Philippines, increasing densities have produced a growing concentration of land ownership and a proletarianization of the peasants from tenant farmers.

Java, because of its extreme density, provides interesting insights into the processes set in motion by extreme population pressure on rice communities. Some two-thirds of the entire population of Indonesia is concentrated on this island of 132,000 sq kilometers, or nine percent of the country's total land area of 1.5 million sq kilometers. In 1961, Indonesia's population was 97 million; Java's 63 million. Indonesia as a whole had 60 persons per sq kilometer; Java had 480. The more congested central and east-central parts of the island had more than 1,000 persons per sq km. For this reason, almost 70 percent of Java is cultivated yearly. By contrast, only four percent of land in the outer islands is cultivated. On Java, nearly half the smallholders' crop areas are under irrigation, and in irrigated regions, half the land is double cropped. In non-irrigated areas, dry crops like maize, cassava, sweet potatoes, peanuts, dry rice, and vegetables are grown in a crop and fallow regime. The Javanese pattern is also found in southern Bali and western Lombok, but only weakly in the southwest corner of Java.

The population densities in territories like Java are made possible by the character of wet-rice lowland agriculture called *sawah*. I will pass over the technical and biological reasons for the capacity of the flooded paddy field to sustain yields over long periods, even without fertilization. The most important feature of wet-rice agriculture, in the words of Clifford Geertz, is 'its marked tendency and ability to respond to a rising population through intensification, that is, through absorbing increased numbers of cultivators on a unit of cultivated land.' Horizontal

spread also takes place in the formation of new *sawah* settlements, but it occurs more slowly and hesitantly, for the pattern of ecological pressures increasingly encourages the opposite practice of intensification.

There are several reasons for this. First, under shifting cultivation, an increase in population density beyond a critical threshold destroys the physical environment. This does not happen in wet-rice agriculture. Even the most intense population pressure does not cause a breakdown of the physical plant, as it were. It might produce diminishing per capita returns on labour and therefore a reduction in levels of living, but no damage is caused to the habitat. Second, the areas suited to traditional wet-rice agriculture — the alluvial plains on river valleys and delta areas fed by abundant surface water that is adequately drained by suitable run-off channels — are scarce. Third, the heart of the system is control of water, which means an investment of labour in terracing that makes farms worthwhile only with long use. There is not much desire to open new areas when additional mouths can find sustenance in the existing areas. Fourth, the culture does give some returns to greater labour intensity — fine-comb cultivation techniques, maintenance and improvement of terraces and water storage and distribution systems, transplanting instead of broadcasting, fine seed selection, thorough land preparation, double cropping, intercropping, etcetera. As Geertz says, 'The capacity of most terraces to respond to loving care is amazing.' The system not only can provide sustenance for additional mouths, it seems to be able to provide work for additional hands.

In the case of the Javanese, the Dutch culture system had superimposed on wet-rice agriculture the requirement to produce such other crops as sugar for processing and export and pushed farmers to a far more intensive use of their land than would have been demanded by the population density of Java in the 19th Century. This premature pressure, as it were, forced Javanese farmers into a crop diversification and land-use intensification that was not found anywhere else in Southeast Asia. By the mid-1930s, about 45 percent of all cropped land in Java was in rice; comparable figures were 90 percent for Thailand, 85 percent for Indochina, and 65 percent for Burma and the Philippines. With the end of the Dutch culture system after independence, the decline of the sugar industry, and the abandonment of many plantations, involution has proceeded.

Population growth has continued, and the heavy densities of a few districts in earlier periods have become more typical of all Java. But the growth in population has left unaltered the overall pattern of rural culture. There was no tendency to concentrate land ownership in a few hands, no class polarization between landlords and rural proletarians, and no radical reorganization of the family-based productive unit. This is in marked contrast with the effects of rising population density in the rest of Southeast Asia, and perhaps the reason for Java's being able to absorb such densities of people.

The past quarter century: 1951-75

In the 1950s, except for particular sectors in one or two countries, eg. the rice industry of Burma, the physical plants, societies, and economies of Southeast Asia that had been ravaged by the war were more or less reconstructed and rehabilitated. This merely achieved a restoration of the pre-war structures of those societies, which comprised three tiers: the traditional Austronesian rural communities subsisting on lowland wet-rice agriculture; the market-town urban-rural complex; and the colonial export enclave with its auxilliary import-dependent, commercial-financial port city which often was the colonial capital and primate city. Between 1946 and the mid-1950s, most countries in the region acquired political independence, and economic development replaced reconstruction as the preponderant goal.

The colonial period left a mixed legacy to these newly independent nations. They inherited western political and governmental systems, a social and physical infrastructure that included an educational system, a health delivery network, a transport grid, and a core of educated professionals, civil servants, public administrators, managers, physicians, lawyers, and educators. The new administrators had a dual economy, because the subsistence rural population remained virtually untouched by the modern enclaves, and a plural society, because immigrant communities of Asians and Westerners remained. The newly independent countries were faced with managing what really were three basic processes. They had to manage growth, the main imperatives of which were at that time outside their control. Increasing population growth and concentration demanded parallel expansion in sources of livelihood and in the

amenities of community life. They had to cope with *change*. Outside influences introduced new desires and aspirations. Growth itself demanded abandonment of traditional culture practices, rhythms of life, and values and attitudes. They had to manage *development* itself, and this had many aspects: integrating a plural society and dual economy; building new, more efficient, and more adequate organizations and institutions; and introducing new values, attitudes, behaviour patterns, modes of control, and incentives.

In the 1950s, the relative abundance of resources in relation to population left comfortable margins for error, and an agricultural frontier still existed in most countries of Southeast Asia. New areas were still available for the extension of wet-rice agriculture. In some countries, the population densities of the original area of settlement were not yet critical, and additional people could be accommodated. With the possible exception of Java and Malaysia, the population densities in river valleys had not reached critical proportions. Besides, alluvial plains still remained that could be opened up even with the meager resources available to individual settlers. With moderate amounts of government investment in water control, drainage, and irrigation, the frontiers could be expanded even farther.

In the quarter century from 1950 to the present, development efforts in Southeast Asia actually concentrated on two items.

- The sustained growth of traditional exports and the development of some new primary products, like maize in Thailand and bananas in the Philippines. This was made possible by the continued growth in the prosperity of industrial countries.
- The generation of domestic values added on to the region's imports of industrial products. There were successive stages in the development of domestic industry: processing consumer durables such as household appliances, electronic equipment, and vehicles; and later, starting a few intermediate industries for steel products, refined petroleum products, and fertilizer mixes.

Indigenous agriculture was left to expand spontaneously. It did this in three ways: by increasing the density and the intensity of cultivation in the existing cultivated lowland areas; by expanding the margins of cultivation; and by increasing the pressure on upland areas through settled farming and shifting cultivation.

This third has, of course, accelerated the permanent destruction of rain forests.

Concentration on the export-import enclaves provided neither sufficient incomes nor occupations for the growth in population. Thus, the rural population has been absorbed in new areas of cultivation with very little improvement in either per hectare or per capita productivity. The flow to the cities has swollen the ranks of the openly unemployed and the self-employed class earning substandard incomes in low productivity service and trading activities. This has also created the urban blight of slum and squatter settlements. It is not surprising then that growth in gross national products in the region's countries has by and large been in inverse proportion to the size of the rural sector. In addition, for countries with large rural subsistence communities, the pattern of income distribution has become more inequitable. The gap between high-income and low-income groups has tended to widen. The high percentage of the self-employed among the lowest income classes reveals the plight of subsistence rural people and those who have migrated to the cities to become subsistence urbanites.

How then does the region look after 25 years of these movements? Based on various surveys, it seems evident that in mid-decade of the 1970s the population-resource situation has already reached crisis proportions in most of Southeast Asia. The options available at the beginning of this quarter century—growth in the traditional primary exports or in the further elaborations of the import-substituting industry—will not absorb the future labour force. Nor is expanding agriculture by opening new areas still an option. In most of Southeast Asia, the frontiers of land suited for rice, the culture most able to absorb increases in population, have been exhausted. There may be room for increasing the densities in existing areas by rapid expansion of irrigation and more intensive cultivation, but this form of involution will absorb only a very small proportion of the new entrants to the labour force that will be emerging between now and the year 2001. This is why the countries of the region must manage the processes of change, development, and growth in the coming quarter century. If they do not, the pressures of the future will be intolerable.

The next quarter century: 1976-2000

What then of the future? The preponderant and infallible predic-
tion for Southeast Asia is population growth. The region will
have 365 million people by the end of this decade, 475 million by
1990, and 600 million by the year 2000. The ranges of variance
from these estimates do not really make much difference either
in the orders of magnitude or in the pressures, imperatives, and
inevitable transformations that must take place in the physical
distribution and circumstances of the population and in the
modes adopted for subsisting and for achieving aspirations. In
the prognosis of the future circumstances of the region, and the
countries and people constituting it, the principal questions are:

• What modalities will communities adopt, in the face of
  inevitable increases in population densities, to achieve not
  only viability with the use of their natural resources, but
  also fulfilment?

• What physical forms will these modalities take in human
  settlements on the Southeast Asian landscape?

• What will be the systemic properties of these modali-
  ties—as economic, social, and political organizations and
  as systems of interrelations beyond the local community
  relating to other communities and to other peoples and
  countries?

• How will these modalities be judged against various crite-
  ria—in terms of efficiency in relation to economic, social,
  political, and moral goals; in terms of flexibility and the
  capability to adjust to future changes; and in terms of sym-
  biosis with the rest of the biosphere?

• To what extent will these modalities be the products of
  conscious human design and deliberate construction or the
  results of improvisations to which multitudes of communi-
  ties will be driven from sheer desperation to survive in the
  midst of escalating congestion?

As we have seen, the judgment of the last 25 years for the
majority of Southeast Asian peoples has on the whole been that
the modalities of habitat and livelihood adopted in the face of
growth have been largely spontaneous and unplanned. This has
been true for urban and rural growth.

Given the limits of Southeast Asia's resources, what alter-
native scenarios would sustain the population size that we know
is forthcoming? What are the modalities of survival and, beyond

survival, a measure of fulfilment? By 2001, our region will have a population three-quarters the present population of China, but with only two-fifths the land area, a population two and one half times the present population of the USSR with one-fifth her area. The population density of the region in 2001 will be more than 150 per sq km, compared to Japan's current 291, China's 82, the United States' 22, and the USSR's 11. How much of this population can be fully employed and sustained in agriculture?

Let us make a few assumptions. The total land area of the region, excluding Irian Barat's 42 million hectares, is 322.7 million hectares. Estimates of the Asian Agricultural Survey conducted by the Asian Development Bank placed the actual and potential agricultural land at roughly 30 percent of this, or 96 million hectares. In the first half of the 1960s, the total land in use for crops and pasture was 54 million hectares. If we make a reasonable assumption of a 1.5 percent annual growth in the amount of land under cultivation, the full potential of the region will have been placed in actual use by the year 2001. Of this full potential, however, there is only a limited area of the alluvial plains that are ideal for lowland wet agriculture, and these are the areas that are now densely populated. My guess is that the region's limit of this land is on the order of 25 million hectares. As past trends in the region indicate, population densities in these areas will probably go up to the limit. If we assume that a person needs 1.9 hectares of land to be employed in agriculture full time, then these 25 million hectares will employ only 13.2 million agricultural workers, or a farm population in rice areas of 53 million. If the average yield per hectare per year comes to 2.2 metric tonnes, then the rice areas can sustain a nutritional density of six persons per hectare, or 150 million people. Put another way, in order to sustain the nutritional density we expect, the prime ricelands must be made to yield about 7.2 tonnes of rough rice per hectare per year. If all the area is double cropped, this means 3.6 tonnes per hectare per crop. The implications stemming from these assumptions are several:

- scarce land suited ideally for rice will be conserved and retained for use as riceland.
- there will be massive irrigation projects to bring the areas under irrigation from 6.8 million hectares in the 1970s to 25 million hectares in 2001—a compound annual growth rate of 4.4 percent.

- the average yields per hectare on ricelands will have to be doubled.
- rice farming is likely to provide employment for only 13.2 million, or 6.3 percent, of the labour force of 211 million in 2001.
- the rest of agriculture will provide employment for perhaps another 14.2 million to bring agricultural employment up to a total of about 14 percent of the labour force. This represents a considerable reduction from its share of about 60 percent of the labour force at present.
- this assumes growth in non-agricultural employment that is quite heroic — an annual growth rate for the next 25 years of about six percent.
- the necessary opportunities for employment will have to come from a combination of the expansion of large-scale corporate enterprise and the growth of small- and medium-scale manufacturing, trade, and service industries.

It seems from the record of the last 25 years that large-scale corporate enterprises of the type spawned in most of the region's countries in the 1950s and 1960s will not expand rapidly enough to provide the requisite growth in non-agricultural employment. The inevitable conclusion is that labour-intensive, medium- and small-scale manufacturing and service occupations in the rural communities, market towns, and larger cities will have to fill the gap. This introduces into the scenario a whole new set of modules for which the recent history of development has not provided an abundance of successful experience and for which existing development techniques, institutions, and practices may not be relevant.

Making human resources bankable

For the prediction to come true that deliberate national and regional management will exercise greater influence in the course of Southeast Asia's development in the next 25 years, developments must take place in two parallel fields of technology: the technology for the planned transformation of rural societies; and the translation of this technology into the equivalent of *projects* that can command the resources of manpower, finance, and materials that capital projects command. The best way to explain the first point is to elaborate on the second. Dr. Hirschman, an economist commissioned by the

World Bank to do post-mortems on its projects, called projects the 'privileged particles of development.' Plans and programmes establish broad outlines, directions, rationales, strategies, and policies—but in reality, real resources flow only into projects. For this reason, projects are, in the words of another World Bank publication, 'the cutting edge of development.'

In the last 25 years, perhaps the most potent influence exerted on the actual patterns of resource use in the Third World has been the accepted idea of what constitutes a project. The analogue that has given concrete substance to the concept of a development project is the business project, particularly a commodity-producing business project. It is a sharply defined activity with identifiable proponents who assume responsibility for the enterprise. It has a defined business—the production of a commodity for sale to realize a profit. The technology of production defines the resources that need to be mobilized. The financial structure defines how the risks and rewards are to be distributed. This was the analogue, and all projects were defined against this analogue, even projects that were not private enterprise businesses. A hydroelectric plant, an irrigation system, a highway—all of these could be structured *mutatis mutandis* to conform to the analogue, complete with capital budgets, initial balance sheets, income statements, cash flows, rates of return, sensitivity analyses, debt-paying capacities, etcetera.

Bankable projects got done. Non-bankable projects did not get financial support and were not done. Development efforts that could not be structured to conform to the analogue had difficulty getting financed. This introduced a serious bias into development finance. It oriented development activity towards capital projects—projects that involved the procurement of hardware and the construction of physical plants. Projects that were system-oriented and human-organization-oriented could not really be financed and therefore were not done. How, after all, do you reduce a project rationalizing an agri-business system to the analogue? How do you make the rationalization of a rural credit system a project? How do you make the deliberate establishment of a system of small-scale handicrafts a project to conform to the analogue?

Part of the difficulty with systems of human organization is the lack of appropriate, tested, and respectable technology. A mechanized garment factory is a physical system which can turn

out products of defined specifications at a predictable rate and cost. A community of seamstresses may be organized into a corresponding system, but the predictability, quality, quantity, time-rate of production, and cost will depend on the effectiveness of the organization and control. Besides, one can finance a set of industrial sewing machines against a chattel mortgage. How do you finance a human organization? And yet, if the predictions about population growth are correct, future development projects in Southeast Asia will have to be precisely the projects that are labour-intensive, which must mean organization- and systems-intensive.

The truth is that the whole system of institutional finance — domestic and foreign — is biased towards capital projects. For emphasis to be placed on rural industry and services, a whole new technology must be invented to translate the preponderant tasks of the next 25 years into projects that are built around human, not mechanical, systems. A network of institutions must emerge to give the same degree of emphasis to these new projects as was given to physical plants and machinery in the past. Unless these new directions are established, it is difficult to see how deliberate action can be more firmly reflected in the trends of the future.

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Deliberate Urban Development

Tan Sri Hamzah, in describing likely changes in the urban picture over the next 25 years, avoids prophesies of urban debacles and focuses instead on the positive aspects of urban development and growth that can be enhanced by sound planning. He posits that many rural areas will be urbanized to provide a thick network of habitation that will facilitate contact, distribution, and inter-dependence, thereby increasing job opportunities in what now are rural areas. This will concurrently provide a more accessible domestic market for Malaysian manufacturers and retail traders. Another beneficial aspect of urbanization is that it will result in a larger proportion of bumiputras in towns and cities—closer to opportunities for better socio-economic well-being and for inter-action with members of other ethnic groups. Tan Sri Hamzah concludes that of the two planning responses to rapid urban growth—conscious deceleration of urban growth by encouraging people to remain in or return to rural areas vs. guiding the natural course of rural-urban migration—the second enables taking advantage of the benefits of urbanization while at the same time minimizing its ills.

Despite the efforts of government to improve conditions in rural areas, demographic statistics continue to show that the cities and towns are growing and that an increasing proportion of the population is residing in urban areas. According to the census reports for 1970, approximately 43 percent, or about 3.7 million, of the population of Peninsular Malaysia resided in the more than

450 towns having a population of more than 1,000 and about 31 percent resided in places having a population of more than 10,000. This makes Malaysia the most highly urbanized nation in Southeast Asia, with the exception of the city-state of Singapore. Projecting these statistics into the future, it is probable that the total population will increase from 10.2 million in 1970 to 14 million in 1980 and 23 million in 2001 and that a majority will live in places having a population of more than 10,000.

There will also be a tendency for big towns to become considerably bigger than they are today. Kuala Lumpur can be expected to grow into the premier metropolitan area of the nation with an approximate population of nearly three million, and the city of Georgetown can be expected to coalesce with Butterworth and Bukit Mertajam to become the second largest metropolitan area in the country. There are indications that Kuantan will outgrow many other state capitals and become the third largest. Johore Bahru will be the fourth largest, and Kota Bahru the fifth largest, with a population of 1.3 million. Some towns will become considerably more important because of their greater size. The state of Negeri Sembilan, for example, can expect to have twin capitals at Seremban and Kuala Pilah. Kota Kinabalu almost replaced Sandakan as the largest town in Sabah in 1970 and is expected to be replaced in the year 2001 by Telupid which presently is being planned to trigger accelerated development in the heartland of Sabah. Bintulu should replace Kuching as the premier town in Sarawak. Because there are indications of a conscious policy to redistribute people from over-populated rural areas and from towns whose continued growth would exacerbate problems, it is expected that at least 50 new towns will be established to assume functions that will further increase the total number of urban dwellers in the country.

Urban growth described in this way is more than a mere increase in statistical numbers. Because it will involve persons of different ethnic groups and economic activities and a number of urban areas in many different parts of the country, urban growth can be expected to generate several new trends. The spread of towns will thicken the network of urban areas to create a continuous urbanized region stretching from Perlis in the North through the states of Kedah, Perak, Selangor, and Negeri Sembilan to the west of the main range, all the way to Johore in the South. This region will be characterized by a number of high

population concentrations with a large, diversified labour pool, a well-organized capital market, a wide range of specialized services, and adequate urban infrastructure. The region covering the somewhat less urbanized part of the Malay Peninsula east of the main range will be considered as an upward transitional region. Applying the concept of spatial organization of development regions, the western part of the Peninsula will show three types according to their GNP and rates of development, ranging from regions of intensive development resulting from urban growth to areas managed as forest estates. Between these two types of region will be areas of transition characterized by intensive agriculture for the production of commodities for the urban market.

It can be expected that conditions in both urban and agricultural regions will be improved: that the number of housing units will be increased, that roads and utility systems will be provided, that postal, police, and fire protection services will be established, and that government services for hospital care and education will be reinforced — all at great cost, of course. But unless family planning is consciously promoted, such investments that the federal and state governments provide for growth might merely induce the population to have more children and nullify many of the benefits from economic development and increased productivity. Already, there are signs that the many of the official bodies administering towns are unable to prevent overcrowding and to provide the essential facilities and services required. Nor are they able to prevent a cumulative breakdown of economic efficiency, as a result of which many towns are having to overstrain their functions. Symptoms of this breakdown are the slum and squatter areas where there are few basic amenities and an almost complete absence of sanitary facilities. The speed at which these towns can be expected to grow in the next 25 years will present even greater requirements for housing, water supply, sewerage, conservancy, drainage, electricity, transportation, and physical security. At the same time, as a result of population growth, more schools, clinics, and playgrounds will be necessary. People will therefore have to have some means of livelihood which in turn can increase the demand for shops, offices, and work places. Although it is not expected that social and economic disorganization will reach unmanageable proportions, it is nevertheless clear that urbanized regions will require

proper development planning if the maximum contribution is to be made to the nation's economy and well-being.

This is not to suggest that urban growth over the next 25 years is expected to hinder socio-economic progress in Malaysia. On the contrary. Two emerging tendencies should be extremely beneficial, provided of course that opportunities presented are fully grasped. First, the thickening network of towns reaching into newly deforested and other developing parts of the country will generally tend to facilitate movement, contact, and interdependence between towns of different sizes and between urban and agricultural areas. If good roads link these towns and if a satisfactory transport system is established, the spread of towns should enable the provision of supplementary sources of income to rice farmers, rubber tappers, collectors of agricultural commodities, and other rural workers, thereby promoting a closer integration between suppliers and consumers of agricultural commodities and between towns and their hinterlands. Because the urban retailer depends upon the rural dweller among others to buy his goods and because the rice grower depends upon the urban dweller among others to purchase his products to meet his needs, the thickening of urban areas spread across the length and breadth of the country should turn the population into a domestic market of greater consequence. Indeed, it can be argued that business opportunities will be spread and that income differences between urban and rural dwellers will be reduced.

A second tendency of urban development in the next 25 years will be that an increasing number of indigenous people will be living in towns and cities. Urban living in the Eighties and Nineties will offer them opportunities for effective participation in banking, commerce, construction, finance, and transportation activities as well as for increased modernity. Urban living should also provide them with the opportunity for greater occupational and social mobility as a result of the increasing educational facilities that will be available. The greater readiness of indigenous people to adapt themselves to urban occupations will in turn reduce their identification with government administration, the police and the armed forces, and other forms of economic activity with which they are traditionally associated. Their involvement in a wide range of economic activities will increase. This suggests that urban living can be economically ad-

vantageous to *bumiputras*. And from the social viewpoint, the increasing number of urban *bumiputras* will balance the numerical discrepancy between them and other Malaysians in urban areas and will provide a useful vehicle for integrating people of different ethnic, cultural, and economic backgrounds.

Given the main features that can be expected of urban society, the urban environment is expected to be more expansive than the rural environment and should evolve into a fully literate environment. This means that scientists, engineers, planners, lawyers, teachers, administrators, technicians, and many others will belong to a technical class that evaluates success according to intelligence, merit, and performance, not ethnicity. In speaking the common language of technocracy, they will have inherent obligations to improve their country irrespective of their cultural and socio-economic backgrounds. The individual, be he a *bumiputra* or non-*bumiputra*, can be expected to look upon himself as belonging to a greater community of Malaysians, extending from his family to his ethnic group and to the community of people that make the Malaysian nation. The society in which he plays a part should provide little room for division along ethnic lines. Still, voluntary social separation can be expected in urban areas in the next few years, for this is one way of minimizing conflict, and even racial enclaves may be expected. This social segregation should be temporary, lasting only until those residing in enclaves find their feet, disperse, and move into other areas where they can integrate more readily with people from other cultural backgrounds. As this takes place during the next few years, we should be more able to conceive of integration in both economic and social life by the year 2001.

Despite the many seemingly insoluble problems associated with urban living, urban development remains a phenomenon of vast potentialities, and it should be possible to devise strategies for making certain that Malaysia's towns and cities are worthy and productive environments in the year 2001. The crushing weight of the problems of urbanization upon relatively weak urban structures and anaemic urban economies calls for positive actions and a judicious choice of policy options. Given the concern of the federal government and all the state governments for socio-economic progress, it appears that there are two possible approaches that can be taken. The first is to decelerate urban growth and induce swelled urban populations to migrate to rural

areas by initiating efforts that would increase agricultural pro-
ductivity and incomes, make village life more attractive, stim-
ulate village and cottage industries, decentralize new in-
dustrial development, improve communications, organize re-
settlement programmes, reform land tenure, as well as seek solu-
tions to specific problems of urban expansion. The second
approach is to recognize that urban development is an important
tool and to seek the deliberate strategy of fostering urbanization
in the country. This would involve guiding contemporary urban
development along its natural course, not reversing its
general direction as implied in the first approach. It is my con-
sidered view that a policy for deliberate urban development
must be consciously and consistently pursued to take advantage
of the many benefits of urbanization and at the same time to
minimize the ill effects typically associated with rural-urban mi-
gration and large connurbations.

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Developments
in Islam

*In lightly tracing the development of Islam in Malaysia over the
last six centuries, Hamka does more that create a loose chrono-
logy. He challenges, in an almost off-handed fashion, many mis-
conceptions that have arisen regarding the supposed incom-
patibility of Islam with technological advancement and economic
development. His main point is that backwardness among
Muslims has occurred only when they deviated from the true
teachings of Islam. The recognition of this backwardness, vis-à-vis
the western industrial nations, has spawned two responses: that
Islam is at odds with development and one or the other should be
eschewed; or that Islam can serve as a driving force in develop-
ment. Hamka notes that the second response has been adopted by
leaders in Malaysia, and he concludes by implying that Islam will
be better understood in future, just as technology will be, and that
Islam will act as a bulwark against the communist threat.*

The *Batu Bersurat* (stones with Arabic lettering) of Trengganu are
tangible evidence that Islam was well established in the Malay
Peninsula at the beginning of the 14th Century. The *syari'at* laws
of Islam were written on stone tablets for the people to obey.
Although the *Batu Bersurat* provide the only written evidence,
tales passing mouth to mouth have indicated that Islam existed
in this country even before that time. This is not surprising
because, centuries before the Portuguese expansion to Malacca
in 1511, it was the Muslims, and especially the Arabs, who mono-
polized the sea routes of the Indian Ocean. Malacca was known

to the Arabs as Maluqat, which means meeting place. The Straits of Malacca were their trade route to obtain spices from the Moluccas, Kapur-Barus, and Sumatra, and this spice trade existed before the birth of the Prophet Muhammad.

Perhaps all Malays did not embrace Islam at the same time. The rulers were the first to be converted, followed by the people. Although I do not wish to discuss this in detail, I would point out that Islam was willingly accepted by the Malays and that this religion later became a part of them. Old beliefs were not completely dissolved, but these are never easy to eradicate entirely. This was so even with Europeans who, although having embraced Christianity, continued to exhibit coarse Viking traits or to worship Greek idols. The Malays were not to be separated from Islam. They remained loyal Muslims, even though other religious missions came to the Malay Peninsula to spread their teachings.

The conception of Islam by the people was not static, and the Malays have experienced changes and new ways of thinking. In 1906, the magazine *Al-Imam* was first circulated, and this publication brought progress to their ways of thinking. Names such as Syaikh Tahar Jalaluddin, Sayid Syaikh Alhady, and Haji Abbas Taha were mentioned, and the reformers who mobilized the static thinking of Malays were noted in the history of the progress of Islam. This mobilization of Malay thought was continued by others who sent their children to Mecca and Egypt for their studies. The ideas of Sayid Jamaluddin Afghany and Syaikh Mohammad Abdul spread to the Malay Peninsula, even more so because Malaya was a neighbour of Indonesia and close to Sumatra, places which had greatly influenced Islamic thinking since ancient times.

An Islamic College was built in Klang before Malaya achieved independence in 1957. Previously, Islam was studied under the traditional *pondok* (hut) system. Later, a few Malay rulers built religious schools. The Malay rulers are recognized in their respective states as the heads of religious affairs and custom and are supported by the *ulamas* (Muslim religious men) and *muftis* (heads of Muslim religious courts). States such as Kedah, Kelantan, and Trengganu were the first to build such Islamic schools. Graduates from these schools joined the Islamic College, which at first was in Klang and later was transferred to Kuala Lumpur. The affiliation of the Islamic College with the National University is significant insofar as progress in the think-

ing of Malay youth is concerned because the study of Islam has since been undertaken in a modern way. What is important here is the escape from *taklid*, obedience to the teaching of an *imam* (Muslim priest) without the freedom of being able to compare the truth or falsehood or the appropriateness or inappropriateness of their ideas with the basic sources of Islam, namely the Koran and Sunnah.

Reforms (Tajdid)

Two kinds of change have taken place in the Islamic world. The first arose from the fact that Muslims were amazed and influenced by the social and technological progress of the West. This resulted in an inferiority complex for Muslims, so much so that they felt they would never progress as long as they were still fanatic in their beliefs. Some regarded their religion as an obstacle to progress, feeling that if they clung to Islam, they would not progress like the western Christians. It was clear that a change in thinking such as this would cause believers to abandon their culture and become mere appendages of the western cultures which impressed them. The second, and much more positive, reform has been for Muslims to refamiliarize themselves with the source of Islam's strength. What was the secret that brought Islam to the Arab lands and enabled Muslims to conquer the surrounding world in a half century? This surrounding world stretched from the Mediterranean lands to Cordova in the West and to the banks of the Indus River in the East, continuing as far as the Malay Archipelago. Later, studies were made to determine the causes for this renowned religion, which withstood the attacks of the Crusades in the 10th and 11th Centuries, to fall into the hands of foreign races at the beginning of the 16th Century. Although certain parts of the Islamic world were not conquered, they were still far behind, as was exemplified by North Yemen before the big changes in 1963.

The results of these studies showed that Muslim backwardness arose after the people deviated from the true teachings of Islam. As a result of a thorough study of western culture by Sir Mohammad Iqbal and several other Muslim intellectuals, the Muslims were able to know the values they held important in life. This reform of thinking has spread throughout the Islamic world from Arabia to Turkey, Iran, Pakistan, Malaysia, and Indonesia. There nevertheless have been some who adopted the

first kind of change in thinking and saw Islam as an obstacle to progress In 1924, Kemal Attaturk abolished the Caliphate in Turkey and tried his best to erase the 400-year-old Islamic influence from the country, to convert with an iron hand the Turks to western life, and to raise their standards in comparison with the rest of the world. As a result, the Turks only became more fanatic in their beliefs. Others have seen Islam as a force to facilitate progress In 1947, Mohammad Ali Jinnah built an Islamic nation for Pakistan, and in 1957 the Federation of Malaya became independent with Islam firmly implanted as the official religion. When Malaysia was formed in 1963, Islam was reaffirmed as the national religion.

After the rise of self-centred nationalistic feelings among Muslims, each Muslim country became interested mainly in achieving her own independence. Their efforts over time were successful, and the Islamic countries are now independent. But this nationalism resulted in the break-up of the unity of *Aqidah* (method) In April 1969, Malaysia took the first initiative to revive the spirit of international Islamic solidarity All the Islamic countries were invited to send their intellectuals and their *ulamas* to a seminar in Kuala Lumpur to discuss problems faced by Muslims in this modern world. In the opening ceremony, Tun Abdul Razak, then the Deputy Prime Minister of Malaysia, stressed the importance of the need to modernize the thinking in Islam, not by changing one's beliefs in God, but by observing the changes that take place in the world and in the social, economic, educational, and other aspects of life. Intellectuals from other Islamic countries — from Arabia, and as far as Iran, Pakistan, Afghanistan, Turkey, North Africa, and even Indonesia — incorporated the view introduced by Tun Abdul Razak that Islam has two aspects, namely *ta'abbudi* and *ta'aqquli*. *Ta'abbudi* is the aspect concerned with the duties towards God that can never change, no matter what happens in the world: five prayers a day, fasting in the month of Ramadhan, the pilgrimage to Mecca, and Wuquf in Arafah on the ninth day of Zulhizzah. *Ta'aqquli* is the aspect concerned with logic. For example, during the Friday prayers, an *imam* could use a microphone because he would be more audible. Or formerly, sailing ships were used for the pilgrimage to Mecca, but now modern ships and airplanes are used. *Ta'aqquli* has a much wider aspect than *ta'abbudi*.

The World Islamic Conference held in Kuala Lumpur was successful. The intellectuals and ulamas who attended this conference were those who could differentiate *ta'abbudi* from *ta'aqquli*. Many problems were resolved, like confirming the beginning of the fasting month, dealing with family planning, and simply cooperating with other Islamic nations. The success of this conference revealed a change, headed by the country's leaders, in the understanding of Islam in Malaysia. Islam is not static in Malaysia, and it is realized that progress in technology can be achieved not by discarding Islam, but by strengthening faith in Islam. This concept corresponds with the concept of the *ulamas* from Mujtahid Islam: that fundamental laws, which are the Koran and Sunnah, can neither be changed nor increased, but that the problems of the world will always change and increase. Our duty therefore is to choose between *al-isyabah* and *an-nazhair*, to discard the harmful and to accept what is good for us.

One month after the Islamic Conference was held in Kuala Lumpur in July 1969, Masjid dil Aqsha was burnt in Jerusalem. As a result of the incident, King Hassan II of Morocco called a summit conference at Rabat that September. Malaysians took an active part in this conference. The former Prime Minister, Tengku Abdul Rahman Al-haj, headed the Malaysian delegation, and Tan Sri Ghazali Shafie was on the committee to summarize the results. When Tengku Abdul Rahman was nominated as the Secretary for the International Development of Islam, the Islamic world focused their eyes on this Malay prince. Since then, Malaysia has become better known to the world and has been active in all the worldwide Islamic organizations. Subsequent conferences were held in Jeddah, Lahore, and elsewhere, and in June 1974, the International Islamic Conference was held in Kuala Lumpur. When the formation of an Islamic bank was proposed, Malaysia was given the task of organizing it, and that was how the Islamic office came about.

A new atmosphere

Considering all these developments, the question arises: What will be the situation of Islam in Malaysia in the year 2001? Islam in 25 years will be headed, *Insya Allah*, by today's youth who range in age from 15 to 20 years. When I was awarded the honorary doctorate during the convocation of the National

University of Malaysia in June 1974, I was moved to the point of tears to see young Malays from various faculties, including the Faculty of Islamic Studies, receiving their degrees from the Chancellor, Tun Abdul Razak. How proud and lucky they were, the youth who will lead Malaysia in various spheres of material and spiritual activities, in technology and self-defence, in knowledge and religion.

As a son of Nusantara, I am optimistic about the future of Islam in Malaysia because of the many changes that have taken place since the first publication of *Al-Imam* in 1906. The changes have been progressive. When Malaysia achieved independence in 1957, the influence of Islam was felt not because it was the official religion or because of the crescent-and-star symbol on the nation's flag, but because of the accepted decision of Malays, the leaders of independence, to tolerate all others in a country of many races. In doing this, the Malays amazed the learned people of the world with their courage. It is not surprising then that Tengku Abdul Rahman was called *Bapak Malaysia*, the father of Malaysia, and Tun Abdul Razak *Bapak Pembangunan*, the father of development. The first steps can hasten later steps. Islam does not oppose the world's progress, it seeks only to control it. Not long ago, Muslims used ships to carry out their pilgrimage to Mecca. Now, they can use the DC-10, which reduces the trip from 14 days to seven hours. It is clear that modern technology can be useful to Islam.

Because Islam has no priesthood, it has no church hierarchy. This is important. In the states that have rulers, the *muftis* are the only specialized religious people. They are given the tasks of studying the laws of Islam in detail, and they answer questions regarding these laws. In the teachings of Islam, there is no conflict between loyalty towards religion and loyalty to the Sultan. Feudalism, as it is known in the West, does not exist here. Individually, a Muslim's belief is between himself and God. Thus, in the coming 25 years, technical progress will not come into conflict with religion. Loyalty to fulfill the teachings of Islam will not come into conflict with technology. Intellectuals in various aspects of science and knowledge will feel pride in being able to remain loyal to their religion.

In the eyes of Islam, the system of administration is the second problem in life. The first and most important is *iman* (faith in God) and *taqwa* (fear for the almighty God) in our

attitudes towards life. The history of Islam shows that besides the four Caliphs—Abu Bakar, Umar, Usman, and Ali—there were sultans who were the first to become religious and believe in Islam. This reminds us of Umar bin Abdul Aziz from the Bani Omayah dynasty, Nuruddin Zankiy from Thailand, and Sallehuddin Ayyubi (Saladin), the great warrior who fought against Aurangzeeb, the Khan of Mongolia. In the modern world, the famous Raja Faisal bin Abdul Aziz has been an asset to us. He was not only a king, but a leader for the democracy of Islam. Although wealthy, he was a simple man in his personal life. The wealth of his country was used for the benefit of Islam, not for his own pleasure. Normally, we hear of such people only in ancient history, but because of the influence of Islam, we can witness such persons in our own period—the age of technology. He died as a *syahid*, full of honour, like the great Caliph Umar bin Khatab.

In 25 years, the understanding in religion will be parallel with the progress in technology. Islam teaches that the status of the learned is not the same as the status of the uneducated. There are intellectuals, such as *muftis* and *syaikhul*, who are both faithful and broad-minded, in addition to having deep religious knowledge. But also to be considered are a number of dangers that are now being discussed by the people of the world and that will still have to be faced in the year 2001. We are troubled by the decline in the morals of youth because of the introduction of narcotics and the emergence of such concepts as atheism and materialism. Everywhere, we see the destruction caused by the communists. These problems also threaten Malaysia and will still exist in the year 2001. We should realize that our worries or frustrations, our fears that another world war will break out, our concerns about free love and free sex—all these have reached the peak. I believe that men will realize in the end that they are not animals, but human beings who long for a life with values. I believe that there will be a time in the future when human beings will return to the correct path.

Everywhere now, whether in Europe or America, or even in Russia which has been in the hands of communists for 60 years, there is evidence that the dictatorship of the communists will not stop people from communicating with God. And after studying the evidence inside and outside Malaysia, we can say that Islam will certainly be the source of strength in the life of Malays in the

year 2001. Since the Malays and the other races have united in
Malaysia to proclaim independence, it is evident that there has
been progress in spiritual aspects. History does not retreat, it
advances forward. Many obstacles and dangers have been over-
come since Independence in 1957 because of the firm belief in
God's help. With God's help, future obstacles can be overcome.
The teachings of Islam have become the principles of life for
Malays to follow and have enabled them to live harmoniously
among other races. The Prophet Mohammad stated in his
teachings: One's faith in Islam would be meaningless unless one
respects one's neighbours, irrespective of their religion. For 600
years, the Malays have been known as a race full of etiquette
and respect towards their neighbours and guests. This gentle
race will not hesitate to change its attitude. If their honour is
defiled, the Malays will change into a malicious race, and they
will not sheath the *kris* (dagger) until the insult has been
avenged, either with the blood of their enemy or their own
blood. Malays hold to the proverb: To die is better than to live in
shame. Malays inherited their nature from their ancestors of the
last six centuries, and this nature will not disappear in the next 25
years. In fact, their aims in life are now strengthened with the
Rukun Negara, the national ideology. In the next 25 years,
therefore, the Malays will become stronger in their belief in the
words of the famous warrior Hang Tuah: *Tidak Melayu hilang di
dunia* (Malays will never be wiped off the face of the Earth).

*Hamka is the name by which Professor Dr. Haji Abdulmalik bin
Abdulkarim bin Amrullah, the influential Indonesian writer, is
known to his readers. The author of more than 300 published
works, he inspired nationalist sentiment in the era before
independence, played a significant part in consolidating opposi-
tion to the Sukarno regime, and over the years has been instru-
mental in shaping the response of Indonesian Muslims to Islam.
He is a highly respected Ulama and continues to be involved in
the leadership and direction of numerous Islamic organizations in
Indonesia.*

The Communication
Satellite Revolution

Clarke is convinced that communication satellites will radically alter the conditions of life and the way people see the world. He avoids discussion of technology that seems likely to be developed in future and concentrates instead on the future applications of technology already in existence. He describes the capabilities of hardware presently available — commercial communication satellites, direct broadcast satellites, meteorological satellites, and land survey satellites — and outlines some of the great opportunities this hardware offers. Clarke speculates about the impact that improved communications may have on human affairs in the long-term future: an almost certain end to newspapers; a transformation of the institutions of education; a likely reversal of the age-old flow of people from rural areas to the cities; a movement towards the unification of the world's many peoples into a single global society. In the immediate future, however, the greatest impact will be the effects of gathering new information about the Earth and effectively disseminating available information and basic knowledge to people everywhere.

When news came to England that the Americans had invented a thing called electric light, the British, being British, called a parliamentary commission. The commission heard many expert witnesses assure the gas companies that nothing further would be heard of this impractical invention. One witness, the chief engineer of the post office, was also asked whether another recent American invention, the telephone, had any applications

in England. He replied: 'No, sir. The Americans may need the telephone, but we do not, for we have plenty of messenger boys.' This very competent man failed to imagine that the time might come when every office and almost every home would have a phone. If you put yourself in his place back in about 1870, would you have imagined that the time could come when almost anyone could pick up a telephone and speak with people elsewhere? Would you have then imagined the impact this would have on society?

Let me give a couple more examples of this lack of foresight. When the first motorcars started running around the turn of the century, a number of far-sighted prophets said: 'The motorcar obviously is an interesting invention, but it will be of limited use for one fundamental reason—because there are no roads in the country, it can be driven only in the cities.' At the beginning of the 20th Century, there were 200 miles of roads in the United States. Who could have dreamed that, in a lifetime, the United States would be almost covered with roads? Nor did anyone ever dream that television would have the impact it did. When the first public television transmission was made, the editor of the world's leading science-fiction magazine said: 'You know, television will never be a success. It will never be more than a scientific toy because it is inconceivable that every home could have anything as complicated and expensive as a television set.' But history has shown that when a technological resource with real appeal comes along, everyone wants to have it, no matter what the cost.

After it is decided that some new technological invention does have applications in society, the tendency is to overestimate its application in the near future and to underestimate it in the more distant future. The reason for this is that the human mind usually approaches problems in a straight line and makes linear projections into the future. But what happens is almost always exponential. The short term is always less advanced than our straight line optimism predicts, and the long term is always more widely advanced than our wildest expectations. This is why I have often said that if people took the predictions in my writings seriously, they would go broke, but if their children did not take these seriously enough, *they* would go broke. This is not just a joke. The intention is to make people flexible in their thinking, so that they might accept the future and not be

clobbered by it when it arrives and takes them unawares. After all, the future is not what it used to be — it is no longer as predictable or as much a reflection of the past as it once was. But the technological future, unlike the political future or the horse-racing future, is one future about which some fairly specific predictions can be made. Because of my orientation towards space and space-related subjects, I will focus on the applications of space technology and the communication satellites to human affairs.

Since I first began thinking about the communication satellite in 1945, I have seen it grow from a small baby, or not even that, to something that is now being taken for granted. It is not just an extension of other forms of communication, like radio and the telephone, which we have had for years. All the high-powered communication techniques, of which television is perhaps the most dramatic, depend on the use of cables or very short wave radio transmission. Although cables are useful in cities and built-up areas, they are always limited, point-to-point, and expensive. And the trouble with very short radio waves, which have to be used for television and similar sorts of communication, is that they travel only in straight lines, except under conditions of freak propagation. This implies, because of the Earth's curvature, that it is possible to transmit only over a limited distance and explains why television engineers have to build high towers on mountain tops. Back in the 1940s, there was no way of carrying a television transmission over the great distances across the oceans. It occurred to me that the solution was to have the transmitter in a satellite which could broadcast to half the Earth at one time. It is easy to calculate that a satellite in an equatorial orbit about 22,000 miles from the Earth would circle the Earth in exactly 24 hours and remain in a fixed position exactly as if it were on top of a transmitter tower 22,000 miles high. Three satellites stationed at equal distances in this orbit could transmit any form of communication to the entire world. The potential of this is revolutionary.

Just 20 years later, in 1965, the Earlybird satellite was launched as the first of a commercial series of satellites. Communication satellites have now entered their second decade and are only beginning to have their impact. They have revolutionized telephone communications and made an enormous impact on business and social life. Many Malaysians remember that

making telephone calls to London or America was no simple thing in the days when radio was relied on. Connections were intermittent, and the atmosphere sometimes played tricks that made it impossible to have a circuit for talking and hearing properly. Sometimes, it was necessary to wait for hours or even days to get a call through. Now, a call can be put through to almost anywhere in the world via the satellite ground station in five minutes. And soon, Malaysians will have direct dialing from their homes to any part of the world.

The next step in communication satellite development was the direct broadcast satellite, a concept I was busy with in 1945 and thought would come into being sooner than it did. Commercial satellites like Earlybird are very low-powered affairs requiring multi-million dollar ground stations to receive television and telephone signals which are then retransmitted to a local network or system. But it is now possible to build direct broadcast satellites which are powerful enough to have their transmissions picked up directly by much less sophisticated ground stations. The receiving dishes are made of chicken wire, like that used for a chicken hatch, and can be assembled by unskilled labour in two or three hours. At present, these receiving stations cost a few thousand US dollars, but if these were mass produced, the cost could be reduced to about $300, and if many tens of thousands were built, to about $100. These can still receive any type of television or other communication, but television is the most interesting because of its educational value.

India is taking advantage of these advances to begin one of the most ambitious and important educational experiments in history. They have borrowed one direct broadcast satellite and are building about 5,000 receiving dishes for installation in villages all over India. The receiving antennae will be aimed at the satellite sitting overhead and pipe the signals to an ordinary television set which villagers can gather round to watch. The programmes are educational, mostly related to family planning and agriculture, and the Indian government is building its own transmitters to get this information into the villages. To start with, only one television set is needed per village. The potential of this is inconceivable: the technology of the future is looming over these villages and will transform village life in years to come.

One major problem in the so-called developing world is lack of information. Because people in rural areas are starved for in-

formation and knowledge, the best and most able people often go to the cities. With the direct broadcast satellite, we have for the first time a development which can perhaps reverse the age-old flow from the country to the city. I think most people believe, I certainly do, that it is more possible to live well in the country. Today, we have the chance of getting the best of both worlds — the good life of the country plus the good information of the city — by getting education, entertainment, news, and information into the rural areas. This may be a matter of life or death to many rural dwellers.

The cultural implications of these new developments in communications will also be of great interest. Consider the linguistic viewpoint. If any one nation were to establish a monopoly of direct broadcast satellites, the language of that nation would become the language of all mankind within a generation. This already seems to be happening in a smaller way in a number of countries. Until recently in Italy, for example, only a minority of Italians spoke Italian. The great majority spoke all sorts of dialects that had been spoken for centuries. Radio did not change this. Television did. A radio can be left on in the background and ignored, but a television cannot. Once it is on, it demands attention, and although it may be switched off, few people have discovered how to do this. Because of television, people in all parts of Italy have willingly learned Roman Italian. This moving towards a single language could happen to a continent as well, or even to the entire world. I think we will see the development of world languages. What will happen, although certainly not in 25 or even 50 years, is that almost everybody will speak at least two languages: the local language they grow up in and at least one international language. Despite the many national languages that obviously will crop up as contenders, we really have a choice of only three for the international languages.

There are also a number of technological possibilities opened by the communication satellite revolution, and some of the things we have taken for granted for generations and even centuries will slowly fade away. The newspaper is one such thing. It will be gone in another lifetime. (Newsmen get very upset when they hear about this, but they will still be around.) It will be possible to produce a device that incorporates a built-in television screen to display printing. Something like this already exists, and it only requires further exploration and experimenta-

tion to display the headlines, news articles, and other items that ordinarily appear in our newspapers. One button would be pressed to see the contents, one to see a particular page, and another to blow up part of that page in detail. After everything of interest is read — sports, stock exchange reports, political news, international news, all of which would instantly available — the device would be simply shut off. One side benefit of electronic news would be that we will no longer require the millions of tons of wood pulp that has to be converted into newsprint (thus saving entire forests for posterity) which is thrown away the day after the paper comes out (thus saving on the costs of garbage collection).

Books will not have to be printed in future because this same system would enable plugging into the global electronic library. Consider the implications of having all the world's written knowledge available in living rooms everywhere simply by dialing the correct series of digits. Naturally, there will be problems of information retrieval, but the technical ways of solving these will no doubt be found. Such a system may also mean the end of universities and schools, as well as the discarding of primitive methods of education, because it will be possible to do so much more in the home. The open university and educational television are already in existence, and these are precursors of what is to come. Using the direct broadcast satellite, it would also be possible for students watching educational programmes to talk back to the transmission source and direct questions to the instructor or lecturer. This obviously would be impractical if many people are tuned in, but selective feedback to the studio could be arranged.

The range of possibilities is restricted only by the limitations of economics, not those of technology, and this is only the beginning of the communication satellite revolution. Anything can be developed if we are prepared to pay the price. The fact that we will be able to live and carry on any kind of business almost anywhere may mean the ultimate end of the multimillion inhabitant city, the end of the sprawling megalopolis. Daily commuting — a phenomenon of this century that people in future will look back on with astonishment — will no longer be necessary. Why spend one, two, or even three hours a day sitting in several tons of steel and breathing carbon monoxide and carcinogens just to get from one place to another, when everything can one day be done in the home. Travel in the future will be largely for pleasure on

special occasions, and this is as it should be.

Still, I am told by many people from the essentially rural underdeveloped countries that it is ridiculous to build television systems for Indian villages when the people are so poor and when the money could be spent more usefully in other ways. But from the viewpoint of cost effectiveness, expenditures on satellite hardware can be more than justified by the support lent to development efforts in these countries. Take the case of Indonesia which has a satellite of its own that commenced operations in August 1976 for transmission to 40 ground stations that will be scattered among the country's 13,000 islands. This new satellite will enable Indonesia to develop a national communication network in a shorter time and at less cost than by any other means. Developing countries cannot afford *not* to have space technology. I recently came across another example of the way communication satellites will significantly assist in resolving the problems of economic development. When I was making a film near Ahmedabad in western India, our film team came across a veterinarian trying to save a dying buffalo calf which was the only wealth of the woman who owned it. She had not called for the vet in time, and it was too late to save the calf. The problem was that she had resorted to charms until the animal was on the brink of death, and only then did she try to get professional help. The problem is one of education, not transport or telecommunications, and it is so serious that *in this very area* the local dairy cooperative is installing TV to reach the farmers. With the direct broadcast satellite and related ground installations, it will be possible to reach the whole of India and save a couple hundred thousand calves per year. That alone will more than pay for the hardware, and that is only one benefit.

Meteorological satellites have begun to transform knowledge about the weather and increase the accuracy of weather forecasting. In future, it will be impossible for anyone to be taken unawares when bad weather strikes, such as in the cataclysmic instance in Bangladesh a few years ago when perhaps a half million people were killed in a great cyclone. A meteorological satellite tracked that cyclone, relaying information about where it was and where it would hit land. But the communications network necessary for getting this information to remote areas did not exist. Many lives were saved by the broadcasts received by transistor radios, but most people in Bangladesh did not have

transistor radios. Even if they had had them, many places could not have picked up the disaster alerts. With direct broadcast satellites, this kind of tragedy need no longer occur. Of course, favourable weather can be foretold as easily as the unfavourable, and in future it will be possible to give sound advice on planting and harvesting times based on monsoon predictions.

Another development in satellite technology is the earth resources satellite. In the first space flights, it was discovered almost accidentally that photographs of the Earth revealed an incredible amount of information which no one had previously really thought about. As a result of this, the Americans went ahead and started to design and launch satellites having the specific job of finding out about the Earth—not only for discovering resources, but also conserving them. The earth resources satellites—ERTS I and ERTS II—have been up for some time and, in fact, had their names changed to LANDSAT I & II, which stand for land survey satellite. You name it, and they can show it. Using a number of cameras photographing through a variety of spectral bands, particularly the infrared bands which pick up many things of interest and value that are not visible to the naked eye, it is now possible to do many things which heretofore could be done only at great expense and effort or could not be done at all. I will cite just a few of these things to give some indication of the range and importance of this new information.

- accurately determining range, forest, and agricultural resources.
- accurately determining crop types under cultivation, including different grains, and forecasting crop yields.
- compiling maps and performing surveys at a fraction of the cost of gathering data on the ground or from aircraft.
- predicting forthcoming water levels by estimating the areas and volumes of snowfall.
- searching for mineral resources and identifying promising areas for ground exploration.
- identifying the positions of ice floes in the Arctic and Antarctic to extend shipping operations by many months.
- identifying sources of pollution

Some people are naturally worried about the prospect of law suits based on LANDSAT photographs, but the real impact will be in the application of this greatly increased knowledge of the Earth's surface.

Modern technology clearly is determining the patterns of our lives more and more. But when talking of the human invention already in existence, let alone that which is imminent, it is very difficult to say with confidence how much of it is conducive to the well-being of society. This makes it important to anticipate the kind of the technology that is coming along and to select technology intelligently. One kind of technology may be neutral, and it may not matter whether it is developed or not. Another kind may be deadly and should be avoided. Still another kind may be good, and we should put all our money into it. But how do we know what is going to happen so that we can make informed decisions? One problem is that there are so many possibilities, many of which are apparently good, that we cannot choose them all. At the same time, all these opportunities may be ruined if the software for these programmes is not developed and used properly. It would be a disaster in the Indian experiment, for example, if good programmes that appealed to the people were not produced, programmes that entertain as well as educate and have some grip on viewers.

I submit that the eventual impact of communication satellites on the entire human race will be at least as great as the impact of the telephone and television on the so-called developed societies. In fact, as far as communications are concerned, there are no developed societies at present. All countries are at the same infant stage of development, and we have yet to witness an interesting situation in which many countries, particularly in Asia and Africa, are going to take the lead in the sphere of communications technology by going straight into the space age. They will never know the vast networks of cables and microwave links which advanced countries built at such great cost and which can be replaced by a single satellite. These societies cannot afford to build hundreds of microwave towers and lay thousands of miles of coaxial cables when they can hire, as Malaysia has, one or more channels from INTELSAT in a satellite which is already in orbit and available at relatively low cost. Let me conclude by quoting from what I said at the signing of the INTELSAT treaty in 1971, when a global consortium was set up to own the world's communication satellite system

The engineering problems of bringing education, literacy, and improved hygiene and agricultural techniques to every human being on this planet have now been solved. With an expendi-

ture of one dollar per person per year, the benefits in health, happiness, and wealth would be immeasurable. Of course, the technical problems are the easy ones. But do we have the imagination in spacemanship to use these new tools for the benefit of all mankind, or will these be used merely to peddle detergents and propaganda? I am an optimist. Anyone interested in the future has to be. I believe that the communication satellite can unite mankind. Let me remind you that, whatever the history books say, the United States was created a little more than 100 years ago by two inventions. Without them, the United States was impossible; with them, it was inevitable. These inventions were the railway and the electric telegraph. Today, we are sitting in a global sphere almost exactly parallel to that situation. What the railroads and the telegraph did in the U.S. a century ago, jets and communication satellites are doing to all the world. I hope you will remember this analogy in years ahead. For today, whether you intend it or not, whether you wish it or not, you have signed far more than just another inter-governmental agreement. You have just signed a first draft of the articles of federation of the United States of Earth.

I think this is really what the communication satellite revolution is going to lead to. We can see INTELSAT as the precursor of the type of international organization which eventually will take over the running of this planet. Bodies like INTELSAT, World Weather Watch, and the World Health Organization are becoming so essential to everybody, even for countries which may hate each other, that they have to cooperate for their mutual interest. This is the way we will progress to a global society.

This article has been adapted from a talk by Arthur C. Clarke, the author of more than 50 books — fiction and non-fiction — on space, oceanography, and popular science. He is best known as the inventor of the communications satellite and as the author of 2001: A Space Odyssey. He now resides in Sri Lanka.

Early Diagnosis
of Disease

Williams describes recent technological developments in blood analysis that will enable diagnosing many diseases before these become acute. Like Clarke, he does not deal with future technology. Nor does he deal with the future application of technology already in existence. He deals with technology that is currently applied in some parts of the world, but not in others, and one of those others is Malaysia. One major technological development is the 40-channel blood-analysis machine that can do 40 separate tests on a single blood sample and give a computer printout of the test results and the diagnoses these indicate. Comparing a much larger number of individual test results with species-normal ranges of the levels of particular substances in the blood enables a more scientific diagnostic approach than was heretofore possible. Variations from these species-normal ranges generate a profile of abnormality in the composition of individual blood samples, and to diagnose disorders these profiles can at present be matched with the typical profiles for more than 200 specific diseases. This diagnostic technique is nevertheless crude in comparison with the far greater precison that will be made possible in future when routine testing in this manner will enable the determination of individual-normal levels and the analysis of variations therefrom. Williams asserts that the eventual impact of early diagnosis by this method will be far greater on the health of human beings than the impact of antibiotics has already been.

The past 50 years have been the most momentous in the history

of medicine. We have learned how to treat and cure diseases that at the turn of the century seemed beyond any possibility of control. We have learned how to perform surgical operations of incredible complexity, culminating with the development of spare-part surgery and the transfer of entire organs from one individual to another. Almost all infections have been overcome by the development of the antibiotics. Mentally ill patients are no longer confined to asylums without hope of cure, for we now have drugs which can control human thoughts and relieve perhaps the worst of human miseries, the disturbed mind. Despite all the advances that have been made, one problem remains the same: there is still a point beyond which disease is incurable just because it was diagnosed too late and because too much of the body has been destroyed to offer any hope of recovery. Such persons die of illnesses that could easily have been cured if only they had known they were ill when the illness first began. For such people, it is as if no advances had been made at all, for they are going to die.

The explanation for a person's being ill and not knowing it is very simple. We are all provided at birth with an excess, almost a superabundance, of tissue for all the important organs of the body. We have 30 times more lung tissue than is needed to keep us alive, 30 times more heart capacity than we need at rest, 25 times more kidney tissue, 20 times more liver tissue, 10 times more intestinal tissue, and so on. This is what ensures a long life. The excess capacity is lost in the slow, inevitable decay that comes with ageing, and eventually a level of organ function is reached that will no longer sustain life. We do not notice the slow decay that starts in our twenties, and we may feel very well in old age despite the loss of much of this excess capacity. Losing this excess capacity by disease is just the same, only very much faster. For example, a man with a disease that is slowly destroying his kidneys will continue to feel perfectly well until five-sixths of the kidney tissue is gone. Even if treatment is completely successful at this stage, he will be left with one-sixth capacity, which is to say no surplus capacity, and an inevitably early death. We must all die one day. This is accepted. The tragedies are the deaths that could have been prevented and the lives burdened by illnesses that need never have developed, if only the disease had been diagnosed in time. Each one of us may right now have just such an unsuspected abnormality, a hidden illness. So it comes

about that a doctor has two problems with any patient: the condition which brings the patient in the first place, and the possibility of another condition which the patient has not suspected, a hidden illness that may ultimately be fatal.

A doctor arrives at a diagnosis in as logical a fashion as circumstances permit. Essentially, he collects facts and then fits all the facts into an explanation of what is wrong with the patient. The more facts he has, the more accurate the diagnosis. To begin with, facts are collected by asking all sorts of questions about when the illness first started, how the patient feels at the time, and the workings of the body that the patient has not covered in his complaints, such as appetite, digestion, bowel action, and so on. Questions are also asked about illnesses in the family, the patient's occupation, and many other things in the patient's past and present life. These facts constitute the patient's medical history, and its usefulness is determined in large part by the patient's intelligence, memory, and ability to express himself. Next, the doctor examines the patient, using his hands, eyes, ears, and even his sense of smell to find out as much as possible. This is the physical examination. Having collected all this information, the attitude 15 years ago was to make a provisional diagnosis and then, and only then, to order a series of tests designed to prove or disprove the provisional diagnosis. Doctors were taught that it was good form never to order more tests than were necessary to confirm one's suspicions. In other words, doctors were taught to be completely scientific by collecting all the facts one could in compiling the patient's medical history and making the physical examination, and then to discard this scientific attitude at the time of ordering tests. As a result, doctors collected not as much information as possible, but as little as possible. Why this paradox? For tests such as X-rays, which injure the patient if taken to excess, the reason is obvious. For blood tests, one limitation 15 years ago was economic. Each blood test had to be done by hand, was tedious, and required a trained technician to get an accurate result. If too many tests were ordered, the laboratory was overloaded. So, doctors discarded their scientific accuracy because of economic limitations on the size of laboratory services. A second limitation was that a large amount of blood was needed to do a large number of tests.

A revolutionary approach to the early diagnosis of disease has been made possible by the development of an astonishing new

technique which combines developments in chemistry, engineering, electronics, and computer science to surmount the previous limitations on doing blood tests. Developments in the last few years have resulted in the invention of machines which can analyze blood samples and eliminate the necessity to do these tests by hand. There has been such a degree of improvement in design that, instead of needing one teaspoonful of blood to do a single test, it is now possible to do 40 tests on one-fifth of a teaspoonful with 10 times the accuracy. There seem to be few limitations on this trend of doing more and more tests on smaller and smaller amounts of blood. This means that doctors need no longer limit their order to only the tests they think they need. The machine does all 40 tests on each and every sample, and it is actually cheaper to do all 40 of these tests than to do a single test by hand, as in the past. Thus, if the doctor needs only one test, the other 39 test results are a bonus of additional information. For the first time, doctors are able to be as scientifically accurate in their testing as they try to be in compiling medical histories and performing physical examinations.

It is informative to see the increasing demand for blood tests over recent years. During the period 1962-72, for example, the number of tests in the average hospital increased 25-fold. The rate of increase is accelerating, and there are no signs that this fantastic rate of increase will slow down. During the same period, the number of people trained (not the number of people employed) in medical testing increased only three-fold. There is a global shortage of these people, and it is only by the use of machines that this phenomenal 25-fold increase in the volume of testing was achieved. The reasons for this increase are undoubtedly complex, but the most significant reason is the tremendous importance of blood-testing as a diagnostic weapon in fighting disease. It is not an exaggeration to state that the greatest advance in medicine made to date is not the development of antibiotics, but the development of super blood-analyzers. To understand why the biochemical analysis of blood is developing so rapidly, it is necessary to understand the development of diagnosis itself.

Before the age of scientific medicine, disease was a mystery. The gods were angry and had to be placated; the weather was responsible; or the wrong food had been eaten. It was only when people began to cut up bodies and to describe what they ob-

served in healthy and diseased people that the era of scientific medicine began. This gave us true diagnosis for the first time by identifying the part of the body affected by disease. This is still the cornerstone of modern medicine and is called first-stage or anatomical diagnosis. There also are second, third, and fourth stages of diagnosis, and it is only when all four stages have been made that a diagnosis is complete. The application of microscopy and bacteriology made it possible to show that the same part of the body could become diseased for many reasons: for example, because of infection, cancer, or the wear and tear due to age or overuse. This is second-stage diagnosis. In much the same way, further research showed that there were different kinds of infection, different kinds of cancer, and different reasons for wear and tear. The identification of these reasons is third-stage diagnosis. Finally, it has been possible to pinpoint the exact site of the action of disease at molecular level. This ultimate diagnosis is fourth-stage or molecular diagnosis.

The final truth about all living things is that life itself is an immensely complex series of interlocked and intertwined chemical reactions and that all disease is the result of interference with these reactions at one stage or another. We have just entered the era of understanding what these reactions are and how diseases result when the reactions go wrong. It is therefore inevitable from this time onwards that medicine will be more and more a biochemical subject. Indeed, the teaching and research aspects in the past 15 years have shifted strongly in this direction to parallel the usage of biochemical tests in clinical practice. We only have to compare the textbook on modern medicine published in the last year or two with one published 15 years ago to see the tremendous changes in attitudes and practices. As a result of all this, we shall in future see the development of many more medical tests with a biochemical basis. Because all the organs and tissues of the body are bathed in blood, which nourishes and cleanses them and takes on a composition closely matching the state of health of each part of the body, most of these tests will be done on blood.

Extracting and examining a few drops of blood is almost the same as extracting and examining a minute slice of every organ and tissue. Of course, such tests will not reveal everything. These will not reveal whether the pulse is regular or whether the patient is suffering from headaches or emotional strain. This will give no

information about whether a patient has a deformed leg or is
blind in one eye. But these will detect a large number of bodily
disorders long before the patient begins to feel unwell and much
earlier than can be detected by the doctor's examination. Bio-
chemical tests thus constitute an early warning system. If these
were applied to everybody once or twice a year as a routine
check, the results could be invaluable in picking out, from an ap-
parently healthy population, those who are in the early stages of
an illness and require detailed examinations. Because we have a
massive population without enough doctors, we need some
screening mechanisms that enable us to pick out the people who
in fact are ill and in need of treatment. By doing mass screening
on finger-prick blood samples, much in the manner mass chest X-
rays are routinely administered to screen for a handful of
diseases of the heart and lungs, it would be possible to look for
several hundred diseases on each blood sample. This has not
always been possible.

Blood analysis has progressed from manual to mechanical
testing. The first machines had only one or two channels, which
means they could perform only one or two tests on each blood
sample. Gradually, the number of channels, hence the number
of tests a machine could perform, increased. By the late 1960s, a
12-channel machine had been developed. It uses a fair amount
of blood by present-day standards, about 15 ccs or three tea-
spoonfuls, and does 12 tests on each sample. The operation of
these machines does not require a great deal of intelligence or
training, and this helps reduce the number of technical staff
required in the laboratory. Blood samples are placed on a
turntable, pumped one at a time into the 12 cartridges in which
the blood is mixed with appropriate reagents, and the test results
are printed on a chart by an automatic recording device attached
to the machine. Once the machine is operating, you just keep on
putting blood samples in on one side and getting results out on
the other. It does 60 samples an hour, and the usual problem is to
find enough samples to keep it fully occupied. The results are
recorded on a printed chart that has 12 columns, one for each
test being performed. Each column is scaled appropriately and
shaded to indicate the range of levels that is considered to be
normal for each substance tested for, be this bilirubin, uric acid,
total protein, or a certain enzyme. If the result of a particular
test—indicated by a line through one of the columns—falls

outside the normal range, it is worth further checking. Importantly, results falling outside the normal range can be spotted by anybody — it does not require much training to decide whether a test result falls within the shaded part of its column. Even more important is the biochemical language these separate results provide in combination.

Because each of the 12 columns represents the result for one test and because each test result can be normal, above normal, or below normal, this might be described as providing a biochemical language of 36 words (12 tests × 3 possible results for each test). Each chart actually describes disease or health in 12 of these 36 words. In many cases, one can look at the pattern of results on the chart and say that the patient has such and such a disease. For example, if the levels of bilirubin and all the enzymes are abnormally high and other levels are normal, there is a strong likelihood the patient has acute viral hepatitis, for this is its pattern. Recognition of the meaning of these words does require skill, but even this can be done mechanically. If test data is put on a computer, the computer can be programmed to give either an exact diagnosis or a list of possible diagnoses based on the test results. Some interesting experiments have been performed at Duke University Hospital in North Carolina and Veterans Hospital in New York to demonstrate the diagnostic capabilities of such machines. Patients were admitted in the normal way, medical histories were taken, physical examinations were performed, and tests were done at the doctors' instructions. Diagnoses made in this manner were compared with the diagnoses made by a 12-channel testing machine linked to a computer. It was found that the machine produced on average 10 percent more diagnoses of disease than did the doctors sticking to the old system. In other words, 10 percent of the diseases of patients are missed by doctors in their examinations. This, of course, is at hospital level, and diseases are usually pretty acute by the time a patient is admitted to hospital.

It is now possible to assemble aggregates of equipment and perform 40 different tests on a single blood sample. This increases the biochemical language from 36 words to 120. If 10 percent more diagnoses can be made with a 12-channel machine, how many more can be made with a 40-channel machine? We have seen a jump from three words in the early 1960s to 36 words in the late 1960s and to 120 words in the mid-1970s. The only ap-

parent limit to the number of words that can be added to this biochemical language is the number of tests that can be performed. Importantly, as the number of words increases, the number of possible combinations of these words increases many times more, making it possible to pinpoint with far greater accuracy the diseases reflected by test results. At present, it is possible to detect more than 200 diseases and disorders by blood analysis.

Thus, testing whether the level of a particular substance in an individual's blood is above, below, or within the species-normal range of levels for that substance is extremely useful as a diagnostic tool. It is nevertheless still very crude. For example, there is good reason to believe that although the species-normal range for uric acid is 2.5 to 8.0, a change in the individual from 2.5 to 8.0 would indicate that something had gone wrong, even though both test results would be scored as normal. The problem at the moment is that very few people know what their uric acid level was 10, five, or even two years ago. If an individual had a uric acid level of 7.5 today, he would have no way of knowing that it may previously have been 3.0 and that, despite being well within the normal range, it is nevertheless abnormal for him. Few people know what the levels of various substances are when they are in good health, because blood tests are performed most often when they are sick. This is why we have to use species-normal values, calling the average value for the human species normal. But for the individual, there must be a much narrower range of what is normal, and this true normal — the individual-normal value — can only be determined by regular testing. In the future, we will do just this. We will find individual-normal values on everybody and record them. If we find that these values have shifted in a subsequent test, we will know some disease is present.

Blood-analysis machines have some wider implications. First, tests can be done using very small quantities of blood — about 20 mosquitoes full obtained by finger prick — and on anybody of any age from babies upwards. Second, the test is harmless, unlike chest X-rays which make patients nervous if more than two are done in a year. Third, more than 40 tests can be performed on one sample, and at the present rate of progress about 100 to 150 different tests will be done on one sample before the end of the century. Fourth, the results come out in numbers that computers

can easily deal with to print out differential diagnoses. Fifth, if people are tested regularly, the computer can do several additional things. It can determine individual-normal values for the various tests and, once these variations have been followed through to see what eventually happened to the patient, interpret variations from individual normals to give even more diagnoses. The computer can compile and store all this data for an entire population and report on changes within the population—for different ethnic groups, for people in different occupations, for people moving from rural to urban areas, for the effect of changes in diet or life style, for the incidence of such diseases as syphilis, typhoid, german measles, polio, rheumatic fever, and nephritis, and so on.

Importantly, all these things can be done, not in the year 2001, but right now. At present, Malaysia does not have such a machine. It can determine individual-normal values for the various tests and, once these variations have been followed through to see what eventually happened to the patient, interpret variations from individual normals to give even more diagnoses. It has only a few of the old single and double channel machines, and even these are not used all that much. Doctors here still prefer to have the tests done by hand, even though it can take three to five days to get the results back. The 40-channel machine can do 100 samples per hour. Because of this incredible capacity—one test every 36 seconds—the trend is to replace the individual laboratories in a number of hospitals with a single test centre that has a transit network with all the hospitals for bringing in blood samples. You can have a 40-bed hospital 25 miles away from the centre getting results within one half hour. The limitation of this machine is the imagination.

It is possible to set up in Malaysia an advanced, fully-automated, and computerized blood-analysis laboratory that would be economically viable on a commercial basis. The cost of the hardware—a 40-channel machine that gives computer results—would be about 1.2 million ringgits. The blood-analysis machines are most economic when doing large numbers of tests: if 10 tests are done per day, one-tenth of the fixed overhead costs needs to be included in the cost of each analysis; if 1000 are done, only one-thousandth of the overhead needs to be included. We have a society in which the commercial firms and quasi-government bodies elect to be responsible for their employees' health, and they might well find it cheaper to pay for the early diagnosis of disease than for the hospitalization and treatment required when diseases become acute. Doing about

100,000 analyses per year, the initial capital outlay would be recovered in one year, assuming the cost for each analysis to be about 15 ringgits. This unit-cost is about the same as that for a chest x-ray, but a blood test is much more informative and much more acceptable to workers.

The benefits of such a laboratory to Malaysia would be considerable. It would give private doctors a very potent weapon against the diseases that are difficult to detect in their early stages. I believe that the true future of the general practitioner is not to deal only with intercurrent illness, but by the year 2001 almost the whole of preventive medicine will rest on his shoulders, and that most of his work will be done for him by blood tests. Such a laboratory would also give the private sector doctors a valuable tool in the diagnosis of the obviously sick. And with the addition of computer-directed differential diagnosis, we would be able to use paramedic staff to boost our supply of doctors, particularly in the rural areas. Finally, we would be able to compile data that at present is very difficult to come by: the normal value of blood levels in various races; the prevalence of various diseases among the different races; rising and falling trends in the incidence of particular diseases; the individual-normal values of people who have routine checks over a few years; the incidence of a particular substance in an individual's blood resulting from, say, pollution, heroin addiction, or malaria and whether the prevalence among the population is increasing or decreasing.

When people hear of the things these machines can do, they immediately wonder why one is not in use in Malaysia. The main reason is the present lack of cohesion amongst private practitioners. Primary care medicine is seen as an abbreviated and less well-performed form of hospital medicine, whereas in fact it is a specialization of its own, as distinctive as orthopedic surgery or forensic medicine. As such, it needs special expertise and specialized ancillary techniques; hospital consultant staff are not qualified to decide what the needs of primary care medicine are. And as a specialization, it is quite new. The first Professor of Primary Care Medicine in the world was appointed only in 1972; the first medical colleges of Primary Care Medicine are not much older. Another reason is the uninformed attitude of the public. Very few employers really care what happens to their workers. Fewer still would be willing to spend five cents a day per worker

on the extra medical care this system would provide. And workers themselves are ignorant as to what they should ask for in the form of medical benefits. Unless and until these attitudes change, nothing of what might be done will be done.

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The Alternative
Futures Story

Chaplin describes the responsibility of the press to present readers with alternative futures. If this were done, the press would serve as an early warning system to expose and ventilate problems before these reach crisis proportion — would better prepare readers for the changes that will be taking place in their respective worlds. For this to be done effectively, new ground will have to be covered by press reportage, implying radical revisions of editorial policies, and new methods will have to be adopted by journalists in their approach to gathering news.

I come to this conference wearing two hats. The first is that of a unique and rather old profession — the newspaper editor. The second is that of a layman interested in anticipatory democracy, and in this connection I quote the allegedly Chinese proverb: Prophecy is always extremely difficult — especially regarding the future. The task force named years ago in Washington by the late President Hoover to study national trends and foretell the results exemplifies the difficulties of prophesying the future. This task force worked diligently and predicted accurately much that followed, overlooking only the Great Depression. I suppose we have to try harder. But the real matter of delving into the future is not so much to predict it or to forecast it, but to see what can be done about designing it, shaping it, and even trying to invent it. We can take it as certain that if we do not try to determine our destiny, someone else will do it for us.

I am here primarily to discuss the role of the press with regard

to alternative futures, but first let me convey some general observations about the accelerated rate of change with which the journalist, along with everyone else, is trying to cope. Arthur Clarke, the scientist and writer, likes to say, 'The future ain't what it used to be.' He and numerous others believe that the future has prematurely arrived and is already here. Marshall McLuhan says that we shape our tools and thereafter our tools shape us. And a newspaper reader, looking up from his front page, exclaims, 'What in the world is going on?' What is going on in the world appears to be the beginning of the greatest transformation since the Creation—or at least since Adam turned to the First Lady and said, 'You know, Eve, we're in a time of transition.' Rapid change has us all spinning. Everything is compressed. Everything happens faster. Even in the ancient pre-Sputnik days of 1954, the late Dr. Robert Oppenheimer was telling audiences, 'One thing that is new is the prevalence of newness, the changing scale and scope of change itself, so that the world alters as we walk in it, so that the years of a man's life measure not some small growth or rearrangement or moderation of what we learned in childhood, but a great upheaval.' The result is that we live precariously balanced between survival and catastrophe in our small world, in our closed ecosystem, in what Buckminster Fuller calls our spaceship. We are caught up in multiple revolutions against values and institutions. We seek affirmation of our identity, and we are hungry for fulfilment. We are, each in our own way, trying to puzzle out the answer to the question put by Julian Huxley: 'What are people for?'

We are also asking ourselves how we can shape our future before it shapes us, how we can address ourselves to the problems of swift and enormous change, and how we can take charge of that change and direct it into beneficial channels. Until now, we have not been able to look to our political figures to lead the way. They are too busily engaged in crisis management, in trying to keep abreast of the recent past and just possibly the present, and in offering old answers to new questions. In the United States, the legislative branch devotes itself primarily to enacting laws to handle changes that have already occurred or are in process. I dare say this can be equally said of every congress, parliament, and town council everywhere. All this at a time when Herman Kahn observes, 'The pace at which various technological, social, political, and economic changes

are taking place has reduced the relevance of experience as a guide to many public-policy judgments.' And yet, we are tugged by the familiar. We are far more comfortable with what we think we know than with what we dare not to learn. Maryjane Dunstan and Patricia Garlan, in their book *Worlds in the Making*, have said, 'We are driving rapidly into a new and unexplored terrain with our eyes firmly fixed on the rear-view mirror. Instead of looking where we are or where we are going, we focus on where we have been. Our perceptions, conceptions, values, systems of mental, emotional, personal, and social organization, our every consciousness — all have been developed in interaction with past environments, and these do not prepare us to see a different road ahead.'

But with imagination and determination, we can make ourselves indulge in mind-stretching. We can design alternative futures and then work to make what we think is the best of them come true. We have often heard the phrase, self-fulfilling prophecy. This is another way of saying that having a dream of what one wants can be the first step towards making it a reality. In this regard, I must respectfully disagree with any who say that a good future will come only from hard work and not from any dreams. There is, of course, no guarantee of success or security when one gets involved in considering alternative futures. It has been said that planning for the future is a complex, frustrating, and exciting task. The philosopher Whitehead put it nicely when he said, 'It is the business of the future to be dangerous.' Some contend, of course, that concern for alternative futures is an attempt to avoid facing up to contemporary headaches. This overlooks the fact that many of our current problems may well have resulted from the failure in years past to consider more fully the possible future consequences of what was then being done. It seems to me that we have no intelligent choice but to move ahead to design scenarios — pictures of possible futures — then to determine the policies and actions needed to move society in the preferred direction, and finally to seek to have those policies formulated and those actions taken.

In all of this, the press has a basic role which grows out of its responsibility for enlightened public service. James Reston of the New York Times recently said, 'Those in the press need intellectual vigilance . . . and especially the gift of seeing, and seeing in time, trends that may affect the life of the world.' Put another

way, one function of the press is to serve as an early warning system that senses explosive problems long before they build to the flash point and, by exposing and ventilating them, helps to defuse them or at least reduce the severity of their destructive force. In the United States, for example, the media did not understand and report the story of the urban ghetto in time. We did not convey the alienation, frustration, and feelings of hopelessness. We did not anticipate the dimensions of impending racial strife built on the determination of the ghetto-dwellers to get a slice of the affluence dangled before them by TV commercials, department store windows, and endless lines of shiny automobiles—the things they saw, did not have, and wanted. The media were again laggard in getting to the energy story, which was there for the perceptive to see. Let us at least hope we have all learned from the energy crisis that we live in a worldwide economic system and that what happens anywhere increasingly affects what happens everywhere. Kuala Lumpur is not far removed from Kalamazoo, nor is Honolulu from Helsinki. Independence has given way to interdependence. That is one part of the alternative futures story.

The press needs to recognize the importance of the alternative futures story and to cover it with insight, imagination, sensitivity, and awareness. The press needs to sensitize readers and listeners to their ability to influence the future for the betterment of all. To do this, journalists must develop wider perspectives and become thoughtful and responsible activists. I am not suggesting that news reports be abandoned for commentaries or that no clear distinctions be made between news pages and editorial pages. I am suggesting that the press can no longer accept that its role is fulfilled by holding a mirror and simply reflecting what happens to its audience. It is far more responsible journalism to expose the school as a firetrap than to report that it has burned down, possibly with a loss of life. It is better journalism to explore where and what kind of schools should be built than, after the fact, to criticize dull designs or a lack of innovation in the choice and use of materials. It might be better journalism still to raise the question of whether congregating young people in a room with a teacher is indeed the most effective way to educate them.

Nor can the press escape its responsibility for getting into the futures field by pleading adherence to objectivity. There really is

no such thing as objectivity. Every act of the press is subjective: the story selected for the top display; the size and content of the headline; and of course the news left out for lack of space or for any other reason. All decisions made in journalism, as in all else, are based on value judgments, that fancy phrase for biases. But subjectivity need not be evil. It can be thoughtful and intelligent, and we in the press can compensate for our prejudices. We can be selective and yet be fair by providing access to those espousing all sides of an issue. And we can demonstrate a willingness to broaden our horizons, to explore, present, and discuss options in all phases of society, and to adjust and help others adjust to rapid change. We are very much a part of the educational process. The press is in the teaching business, and one of its required courses should be alternative futures.

The question has been raised whether editors should not ask their staff members to speculate on alternative futures in their own specialties or on the beats they cover — that is, to move from routine daily coverage to writing a scenario of their individual specialty or beat looking 25 years ahead. The results would make a fascinating series of articles, provoke public discussion, and thus perform an educational service. Let me cite Robert Jungk, himself a newspaperman, who says, 'The newspapers and other media will have to change their outlook and their treatment of news. They have an immense educational job to do. By giving us more information of what could, might, or should happen, they will greatly affect all of us.' And Buckminster Fuller has pointed out that newspapers are dealing with less than one percent of the new realities. If the press is to be a relevant force, it obviously has its work cut out.

Several observations about the media were made by participants at the Penang workshop on Malaysia in the Year 2001. One was that interest groups and their activities should be made better known through the mass information media. Another voiced a need for newspapers in smaller towns to serve as tools for the development of a more open society. And a third was, 'It was agreed that the role of the press should be to achieve more, if only they would try, for it is felt that the restraint in the press was imposed by the press themselves, not by the authorities.' Several comments were made about race, religion, intermarriage, education, and other pressing subjects, and many things were envisioned: Malaysia will have moved from an

agricultural to an industrial society; racial imbalances in employment will have leveled out; the urban population will outnumber the rural; poverty will have been greatly diminished if not eliminated; people will be better educated, healthier, and more socially conscious, with greater equality for women; life will be more open and leisurely; the media will be more innovative and more accessible to lower-income groups; and people in general will regard accelerated change as a challenge, not a menace. Stimulating and leading the discussion about the achievement of such goals, and the selection of appropriate means, is the clear responsibility of the press.

We in the press have a moral contract with our readers to provide them with news and ideas in such quantity and diversity — and of such quality — as to enable them to form sound judgments on vital issues and then act on those judgments. Vital issues obviously include the options open to a society. I hope that the press of Malaysia will encourage and even lead a national debate on the kind of futures the people of this country want and the ways people think such futures can be achieved. It has been said that the perpetual tragedy of mankind is that we do things 20 years too late. Perhaps for Malaysia, this conference and its follow-up, with deserved support from the press, can help cut that time-spread. What a challenge this is to intelligence, innovation, and the proposition that timely advancement of the entire society in an atmosphere of freedom and justice is the noblest of all dreams.

George Chaplin is editor-in-chief of The Honolulu Advertiser, the morning newspaper in Hawaii. He conceived and was chairman of the Hawaii Governor's Conference on the Year 2000; co-edited the book Hawaii 2000: Continuing Experiment in Anticipatory Democracy; was first chairman of the Hawaii State Commission on the Year 2000; and now is co-chairman of the project, Alternative Economic Futures for Hawaii.

Civic
Consciousness

Anwar looks at some of the unsavoury by-products of rapid urban development and questions the validity of standards usually applied to assess the quality of life in Malaysia. He suggests that business and government often provide consumers with products, services, and environments of low quality and that volunteer activists must get together to establish a countervailing power which lobbies for consumer interests. He calls for civic-minded activism that is sensitive to these problems, and he puts forth a number of areas worthy of civic action, along with some basic principles that should be kept in mind in organizing this action.

To those of us who infrequently and reluctantly visit Kuala Lumpur, the journey between the Subang International Airport and the city provides a painful scenario of the kind of Malaysia we are charging towards. My latest such journey was typical. Most of the arriving passengers took air-conditioned taxis, about 20 in all, and these convoyed towards the city with one passenger each. We were entertained by a barrage of large bill-boards exhorting us to bank, to fly, to smoke. We rolled over a dead dog already crushed flat by days of traffic. Groups of workers watched the stream of under-populated cars with envy while they waited for their over-populated bus. Two more lanes for traffic on either side of the Federal Highway are going to make it easier, but they do not say for whom. A whiff of penetrating aroma from the acid works was inescapable, even in an air-conditioned car. Only four cars had been abandoned that

morning—casualties of the daily rush to work. The heavily-fenced Angkasapuri, the source of our public information, had its perimeter security lights still on, competing with the bright morning sunshine. Nearing the city centre, we ground into second gear and moved slower than the Klang River—one big yellow milkshake of silt, a victim of development upstream. In many places, we saw wild patches of *lalang*, deceptively attractive from afar, but the symbol of ecological decadence nonetheless. (*Lalang* is a tall, dense, and coarse grass associated with anaemic secondary growth in plant life in Malaysia. It flourishes in newly-cleared areas and represents a biotic climax preventing regeneration, causing soil deterioration, and bequeathing greater problems in the conservation of the environment.) The taxi-driver had only one complaint this time—two gangsters (his term) took his motorbike away because he could not pay what was almost his last installment. He had already paid more than half at an effective interest rate of about 30 percent per annum, including an illegal premium.

The capital city's mass media tell about a higher Gross National Product and higher per capita income, but not enough about increasing gaps between the highest and lowest groups; about more cars, but not enough about less public transport; about more industry, but not enough about even more pollution, a dismal record of road and industrial accidents, dishonesty in the marketplace, drugs galore, both mind-changing and pocket-fleecing, and conspicuous consumption at all levels. All these are symptomatic of a kind of growth that bothers many of us. We are told it is the joy and price of progress—but if the joy of progress is for a small sector, the price paid and pain suffered by many others bothers us even more.

Kuala Lumpur and the life style it projects must not be allowed to become the prototype for other cities in Malaysia. We need to see a new awakening in Malaysia about these life styles and the manner in which our environment, our bodies, and our minds are being polluted. We need a sharpening of our civic responsibility, and we need to organize this responsibility towards action for a better society. In the kind of democratic society we have in Malaysia, there is an essential role for volunteer activism for social change. If we are to meet the material, social, and psychological needs and problems of the next 25 years, this role must be catalytic and provide the kind of

innovative but sensitive input that government bureaucracies have proved incapable of. It should be a critical, constructive, and key role in the open kind of participatory democracy we like to ensure in this country.

Are we fostering an environment in which young as well as enlightened citizens can play this kind of role? Are we in danger of developing a kind of education system that strait-jackets youth into a kind of submission—with endless exam-inations and ceaseless but puerile extra-curricular activities? Is it a fact that civics teaching, scandalous in its neglect and effect, is indicative of the kind of citizens we will have in the next 25 years? Does the all-pervasive requirement for security measures restrain responsible civic action? Is *lalang* being allowed to grow in the minds of our young? These are legitimate concerns of thinking people, of young people searching for the answers that are no longer at the back of their text book. Our political frame-work still provides for a range of civic action to give vent to these concerns. The removal of certain sensitive issues from the realms of political debate may in fact create a vacuum that can be filled by more responsible and constructive civic action that goes beyond race, religion, class, language, or sex and seeks a better society through action in areas of common concern. This action must recognize that the quality of our lives is measured not in terms of per capita income, but the whole complex that goes to make up a responsible life style.

The kinds of concerns Malaysians can highlight and organize for are:

- fighting injustice in the marketplace and seeking new ethics in the business community.
- seeking the conservation of our environment and the res-ponsible use of our natural resources, especially energy.
- carefully reviewing technology, so that we develop and use in accord with our needs and do not end up as unnecessary prisoners of new kinds of expensive technology.
- inculcating a concern about the waste in our communities that is evidenced by the kind of goods being sold by ad-vertising and promotions—goods that people often do not need or cannot afford.
- pointing to the atrocious record in industrial and road safety and seeking better legislation, enforcement, and education.

- looking into the medical-phamaceutical industry which often penetrates the market irresponsibly, developing preventive health care still further, and achieving greater control over the food and drug industry.

Civic action on these issues can provide the kind of cooperative effort that will challenge our youth and the citizens of the last quarter of this century to play a role in building a better society. Many voluntary organizations—women's institutes, youth clubs, trade unions, and traditional civic groups like Rotary, Lions, Apex, Boy Scouts, and Girl Guides—can form action groups around such particular areas of new concern as the environment, consumerism, and safety. Alternatively, new groups can emerge that can take up the challenge of such issues either singly or on a broad front, as in the case of many consumer associations or residents' societies.

This is not the place to present a primer on how to organize for change, so I will mention only some of the principles that are important in organizing for change:

- having clear objectives and not compromising on principles.
- reading and collecting information about the field and involving experts.
- basing action on correct and adequate facts.
- having a broad base of support and involving many sections of the community.
- learning to work with the press and using it effectively.
- knowing local politicians—politics is the way things are run and one must learn how to influence those who hold political office.
- not over-organizing, but working on a task-force basis and keeping groups flexible—many volunteer groups have been immobilized by over-bureaucratization.

There is a Malaysian saying, *seperti layang-layang putus tali-nya,* which can be translated, like a kite when the string is broken. The next 25 years are going to determine whether Malaysia's development is going to be further out of control or whether, through responsible civic action, we will move consciously towards a better society in all aspects

Anwar Fazal is a young Malaysian who is active in the fields of consumerism, population, and youth affairs at local, national,

and international levels. He has served as a consultant to the United Nations Food and Agricultural Organization (FAO) and is now serving an international organization that is promoting world-wide cooperation in consumer protection, information, and education and in the comparative testing of consumer goods and services.

The Futures
Party

*The Paiges present the Futures Party as a framework for realizing
more desirable futures by injecting existing institutions with an
almost anti-political approach to power and decision-making. The
proposed organization is laden with idealistic notions which some
would describe as naive, impractical, and precisely what develop-
ing countries do not need. But to each cheerful statement con-
cerning principles, decision-making processes, programmes, and
membership qualifications, there is a twist to demonstrate some
of the flaws and fallacies of political institutions and power ethics
today. The Futures Party is seen as the beginning of a more
humane model of political behaviour.*

The Futures Party emerges in the last quarter of the 20th Century
as an expression of global aspirations to prevent war, limit popu-
lation growth, feed the starving, eliminate poverty, protect the
physical environment, and to liberate creative human potentials,
including those of women, in every human community from the
smallest to the largest. The fact that these problems exist indi-
cates that past and present institutions have not been successful
in efforts to solve them; therefore, a new political party that can
multiply the positive potentials of existing parties and institu-
tions now seems essential.

Drawing strength from the past, the Futures Party works
towards the realization of more desirable alternative futures in
the present. Although concerned with everything, the Futures
Party dominates nothing. This apparent paradox is possible be-

cause the Futures Party works through existing institutions and those to be created in the future, but does not seek organizational control over them.

We have chosen the International Conference on Malaysia in the Year 2001 to make this inaugural presentation of the Futures Party because we — as persons coming from Hawaii — feel an emotional affinity for multi-ethnic Malaysian society and because we have observed that explicit discussion of political futures has been one of the least satisfactory aspects of conferences on the future that have been held throughout the world. Please consider inviting yourself to become a member of the Futures Party.

Purpose

The purpose of the Futures Party is to work towards the realization of more desirable human and non-human futures. The Futures Party does not itself seek power, but strives to nurture the creative energies of its members and those of other political parties, organizations, groups, and individuals in order to achieve its objectives.

Principles

The party's guiding principle is to create and resolve such conflicts as may assist the realization of party purposes in a non-violent manner through mutual communication of ideas and feelings.

In the creation and realization of alternative futures, party members seek inspiration from alternative pasts, as well as alternative presents.

The Futures Party does not work in linear fashion towards either homogeneity or heterogeneity; rather it seeks those qualities of commonality or diversity that most enhance realization of its purposes.

Those who most disagree with the basic principles of the party are the most welcome members.

The party encourages multiple value loyalties and demands no mutually exclusive ideological commitment.

The party symbol is the Universe and may be represented in any way one or more members find meaningful.

The party's slogan is: 'No slogan is adequate.' Members illustrate this by creating and using such slogans as they find helpful

in party work.

Laughter, smiling, and good feelings are permitted in all party activities.

The party does not insist upon suffering as a prerequisite for the realization of more desirable futures.

The Futures Party has no official language.

Organization

Every member constitutes a chapter of the party.

Every member is both a leader and a follower, deciding when to take initiatives and when to support the initiatives of others as appropriate.

Groups of members may organize themselves for action on the basis of geographical location, shared feelings, material circumstances, organizational affiliations, or common problem-solving aspirations within and across households, places of work, local and national communities, and global associations.

The party has no central committee, and any member or group of members may convene and lead an activity on any subject at any time.

Party congresses may take place but are not essential.

Party members intuitively know, and are supportive of, the work of all other members at all times. The party is always in session.

Party meetings, when held, are not prolonged to the point of physical, mental, or emotional exhaustion.

The party has three complementary tendencies: a *radical conservative tendency* that seeks to create revolutionary future conditions that perpetuate past or present values of profound human significance; a *radical innovative tendency* that seeks revolutionary realization of new values; and a *radical integrative tendency* that seeks revolutionary realization of more desirable futures in part by reconciling differences between the other two party tendencies.

Each party member contributes to all these tendencies.

Additionally, each party member is *optimistic*, *pessimistic*, or *undecided* about the future according to specific problems and to the ways in which present circumstances and progressions to alternative futures are understood. Members ordinarily feel uncomfortable when efforts are made to force them to declare dichotomously whether they are optimistic or pessimistic about

the future.

Non-coercive administrative institutions may be created to carry out party purposes.

Decisions

No rules are established to prevent full participation by all members in all party activities.

Decision-rules and the extent of participation are decided by all persons affected by a decision.

Where consensus exists, decisions made by even a single member are considered legitimate and worthy of support by all other party members.

The full authority of the party may be invoked at any time by any member who is engaged in its non-violent purposes.

Where consensus does not exist, decisions are considered legitimate only for those members who participate in them.

For some purposes, an all-party decision-making group is randomly selected from the list of party members according to the principles of scientific sampling.

For other purposes, all-party decision-making groups are created by purposive selection of persons with extraordinary competence in the matters to be decided.

Decisions reached in both the foregoing cases are referred to the full party membership for approval.

Majoritarian decision-rules are sometimes adopted, but never for the purpose of silencing a dissatisfied minority.

Programmes

No aspect of life is beyond Futures Party concern, but party members do not define *everything* as political.

The subjective success of the party is to be measured by decreasing dissatisfaction of its members combined with increasing satisfaction of persons who are not yet members.

The objective existence of violence, material impoverishment, and cultural repression are evidence that the Futures Party is not being successful.

The Futures Party, like other parties, is capable of carrying out revolutions from the bottom, from the top, or from a middle position. Additionally, it has an unusual capability for effecting revolutions *from the side*. When this occurs, a major shift in human development will have taken place.

The principal mode of party influence is diffusion by example.

Membership

The Futures Party aspires to universal membership and accepts all who wish to join on a voluntary basis, regardless of their other commitments.

Diverse interim membership is sought on the basis of age, sex, race, occupation, economic class, ideology, culture, and geographic position.

No secret memberships will be accepted since participation in the Futures Party does not demand that members abandon other loyalties.

Nevertheless, persons whose lives may be endangered by carrying a party card may choose to become non-card-carrying members and are entitled to full party privileges.

Party members recognize each other not only by identification cards, but also by observational inference and direct questioning.

The party has no dues and members incur only one responsibility: to voluntarily contribute such ideas, feelings, experiences, and resources as many contribute to the realization of its purposes.

Self-expulsion for violation of party principles when evoking the authority of the futures party is expected.

Self-reinstatement under conditions of felt capability to reassume membership responsibilities is also expected.

Persons who wish to obtain numbered Futures Party identification cards should request them from its membership coordinators: Glenn and Glenda Paige, c/o Department of Political Science, University of Hawaii, Honolulu, Hawaii.

Party identification cards no. 1 and no. 2 have been reserved for Mohandas K. Gandhi and Kasturbai, should they desire to ask for them.

Futures Party futures

The principles of the Futures Party as well as other aspects of its expression are never fully or adequately specified. Therefore, every member of the party is expected to contribute such revisions, additions, and subtractions as will facilitate realization of its purposes. We hope that all participants in the International Conference on Malaysia in the Year 2001 will

consider joining the Futures Party and devoting creative energies to the non-violent realization of more desirable human and non-human futures. *Aloha!*

Glenn Paige is a professor of political science at the University of Hawaii. Glenda Paige works in private business on the accounting and operations staff of the McDonald's Corporation of Hawaii. They worked together on the book Hawaii 2000: Continuing Experiment in Anticipatory Democracy, *which Glenn co-edited with George Chaplin. Glenn's most recent book is* The Scientific Study of Political Leadership *(New York: The Free Press, 1977), in which he acknowledges the creative influence of the Malaysia 2001 conference.*

The More-with-less
Transformation

Fuller traces large patterns to develop some rather spacious notions about man, mind, and Universe. His sequence of thought runs something like this. Man, because he possesses mind, is differentiable from other creatures that have brains. This mind, fortified with a calculating facility, enables human beings to understand relationships between special cases that are in no way indicated by the behavioural characteristics or data of the special cases in isolation. This unique capability has enabled man to gain a fuller understanding of the workings and design of the Universe. From this, it can be inferred that man's function in the Universe is to solve problems, the solution of which resides in discovering the principles of the design of the Universe. By applying artifacts based on some of the generalized principles discovered thus far, man has been able to do more than his muscles alone would allow. Fuller observes, moreover, that man has been able to do more with less, that man recently has been doing much more with much less, and that there has been an exponential acceleration in technological developments and their application. He feels that it will soon be possible, using known and available technology and resources, to supply all humanity with the basic essentials of food, energy, and shelter. This is not some distant prospect, for it is theoretically attainable by 1985. Fuller feels also that we are on the brink of discovering the comprehensive design of the Universe, that is, of discovering many more of the generalized principles operative in the Universe. Applying the artifacts that can be derived from these new discoveries will enable having enough

of everything for everybody and transform life as we presently
know it, thereby demolishing all politics and economics which
throughout history have been based on the assumption of funda-
mental inadequacy of life support. Fuller says that we now have
the capability to feed, house, educate, and take care of everyone
on the planet. For this to occur, man must use his mind, not his
muscle, and apply the artifacts derived from generalized
principles to the well-being of humanity, not to the preparations
for war which have been the main preoccupation in the past. If
man continues to concentrate on muscle and war, there is little
point in thinking about Malaysia or the world in the year
2001—although the Earth will still be here, Fuller is fairly certain
that human beings will not.

We are on the brink of the greatest revolution in history. If it
pulls the top down and is bloody, all will lose. If it is a compre-
hensive design-science revolution that uses artifacts to elevate
the bottom and all others to unprecedented new heights, every-
one will live to dare spontaneously to speak and live and love the
truth, however strange this may seem.

In my study of the science of prognosticating, I make the
basic working assumptions that man did not invent the Universe
and that all human beings were always born naked, absolutely
helpless for many months, and utterly ignorant. All humans have
also been born with hunger, thirst, curiosity, and a procreative
urge. They have had to find ways to satisfy that hunger, thirst,
and curiosity by trial-and-error experimentation, and they have
had a great spontaneous courage to keep on experimenting. By
their scientific experiments, they have disclosed that a number
of most extraordinary principles are operative in the Universe,
like the principles of optics, mass attraction, and electromag-
netics. Universe is a great complex of these principles, and
integrity is always found in the beautiful design of all biologicals
and in the design of the stars. Universe is never at a loss what to
do. Universe always knows exactly what to do under any circum-
stance. Universe is such an incredible integrity that, as far as
physics can discover, no energy has ever been created or lost.
Universe is eternally regenerative, and the operative principles
are so adequate as to guarantee the integrity of this eternal re-
generation.

Because such competence is manifest in all the designs and

complementation, I would assume that if Universe wished to have man advantaged by a set of instructions, Nature could have arranged to give him these instructions. Nature could have arranged, for example, when man was hungry, for all green berries to be safe and all red berries to be dangerous. But man has found this not to be so. The clues seem to be greatly unreliable. So, the design quite clearly is one in which human beings have designedly been born ignorant and helpless to force them, in order to survive, to discover things by trial and error. It is now known that human beings have been on our planet for 3.5 million years; it may in due course be discovered that this presence extends over a much greater time span. During that time, they have learned a great deal by trial and error. They have learned how to make sounds so they could communicate their experiences and learning with one another. This must have taken millions of year. Today, we have 100,000 words in the Oxford dictionary, indicating that human beings have discovered 100,000 nuances of experience, each warranting a special word. That human beings, who have such difficulty agreeing with one another on fundamentals, have agreed on the meaning of 100,000 words seems to be one of humanity's great victories.

Because human beings have only been able to learn by trial and error, they would possibly have become so unquestionably dismayed with all the errors they made that they would have developed a great inferiority complex and not wanted to go on. So, Nature has endowed human beings with a vanity by which humans could always say, once something has happened or been discovered, that they knew it all the time. The feeling seems to be that anybody who makes a mistake has something wrong with him. But everybody make mistakes. That is all human beings do make. One reason they do not learn very much is that they do not admit their mistakes, for it is only when mistakes are admitted that something is learned. The built-in vanity factor that keeps man encouraged and enables him to gloss over his errors is one thing we must watch out for if we are to avoid deluding ourselves.

Mind and the discovery of principles

Human beings are differentiable from all other organisms in that all the other organisms have integral, built-in equipment with which to cope with special environments. A little vine gets on

well in the Amazon, but no place else. Birds have beautiful wings to fly in the air, but on the ground they cannot divest themselves of wings and are hampered when they try to walk around Human beings do not have this special integral equipment. Many creatures have brains, and human beings are not unique in having a brain. But human beings have, in addition to the brains which other creatures have, a phenomenon of mind. Mind is very different from brain, even though the words are often used interchangeably. Mind has the extraordinary capability to discover relationships existing between special cases that are not in any way indicated by any of the behavioural characteristics or data of the special cases by themselves.

For thousands of years, human beings were intuitively excited by the fact that in addition to the fixed stars, which held their patterns beautifully, and the sun and moon, there were five lights that moved around. These five perverse lights were a little bigger than the fixed stars and seemingly moved around very randomly. What were they doing there? Gradually, human beings called them planets and recorded a great deal of data regarding their annual cycles and so forth. But not until human beings had a calculating capability — the positioning of numbers did not come into the common world until AD 1200 and did not become widely enough understood until AD 1500 — did they do anything with this data. Suddenly, we have a Copernicus, a Kepler, and a Galileo fortified with a calculating capability. No matter how excited human beings may have been before, they did not have any capability to calculate. This does not mean there were no great intellects. There were, but they simply did not have the facility to develop or accumulate their experience. Copernicus, with a calculating capability, found that we apparently were on a planet ourselves, not on a fixed platform with the rest of the Universe going around us. Excited by Copernicus' findings, Kepler used beautiful astronomical observation instruments to make a powerful inventory of observations. He knew that the five lights moved around the sun in elliptical orbits, but he found also that each one was a different distance from the sun, was going round the sun at a different rate, was a different size, and that although they were part of the same team, they appeared very disorderly. Because he had a mathematical calculating capability, he decided to give them something in common. As I remember it, he gave them 21 days, which is very much less

than any one of them could make an orbit or even a very short part of an orbit. And in 21 days, because they were moving in an ellipse, he determined the exact distance each one was from the Sun. Each one moved in an arc — 21 days of an arc — and the starting and finishing radii back to the Sun made a sort of piece of pie. He then decided, again because he had a calculating capability, to calculate the areas of these pieces of pie. Some were short and fat; others were long and thin. In calculating them, he made an extraordinary discovery. The areas were not just a little alike. They were exactly alike. So despite the superficial disorderliness, there was a most elegant mathematical coordination hidden there. He felt as if they were touching one another, like gears or by friction, but they were incredible distances apart. How could they coordinate at that distance? He must have said to himself, 'If I swing a weight on a string around my head, it is in orbit. If I let it go, it leaves the orbit in a straight line. The fact that the planets are in orbit means there must be some kind of tensile restraint, something like a piece of string. There is a visible phenomenon of tension, but the piece of string is invisible.' This greatly excited Galileo, who was making measurements of free-falling bodies and bodies going down inclined planes at various angles. He found in free-falling bodies that the rate of fall accelerated and that the rate of acceleration multiplied the rate times itself. This is what is called *second power*. Then, Isaac Newton was greatly excited by all these findings and deeply eager to understand what the tensile restraint between planets and heavenly bodies might be. Newton was greatly advantaged by the findings of astronomers and navigators who by this time had a beautiful cataloguing of the patterns of the sky, the different constellations, and their relationships to the Earth as it rotated and orbited around the Sun and who could tell where you were on the planet Earth by making angular observations of the height of a celestial body above the observed horizon. Newton had all this information plus the generally acknowledged information of the correlation between the Moon positions and the great water tides of our Earth. He decided that if billions of tons of tidal waters were being lifted daily, the pull between the Moon and the Earth must be something phenomenal. Newton must have said, 'If I swing a weight around my head on a string and let go of it, it goes out there, but the Earth takes over. The Earth is a planet and is absolutely overwhelming in its

pull.' And he could see why two apples sitting on a table, even though they had a mass attraction for one another, would be so overwhelmed by the big pull of the Earth that the friction against the table would make it impossible to realize that there was an attraction between them. Human beings had not assumed any attraction up to this time, and Newton wanted to go much further. So, again having mathematical capability, he recognized that when you let go of a swinging weight, it goes off in a line and would persist in a straight line, except that it is affected by other bodies. This is the first *law of motion*. Then he must have said to himself, 'I'm going to make a working assumption of the Earth's being suddenly annihilated for some reason or other and letting go of the Moon on a given night.' Having beautiful astronomical predictability on the positioning of the Moon in relation to the constellations in the sky on that night at that given moment, he asked what line the Moon would describe if it were suddenly released by the Earth. Having a mathematical capability, he then calculated the rate at which the Moon fell away from the theoretical line and moved towards the Earth. He found that the rate exactly agreed with Galileo's rate of acceleration of falling bodies. He then assumed that if you took the two great masses and halved the distance between the two, you would increase their inter-attractiveness four-fold; a second power function, or if you doubled the distance away, you would reduce the inter-attractiveness to one-quarter of what it was. Newton's hypothesis was then tested by astronomers, and sure enough it began to explain all the celestial behaviours. And long after Newton, we get into the microcosm where, with no electromagnetics involved, the same mass attraction law obtained. Newton discovered what is called in science, a generalized principle, and this generalized principle is only mathematically stateable. It is stateable in terms: if the inter-distance is varied arithmetically, the inter-attractiveness is varied exponentially, to the second power. So, there was a constant covarying. He also found the law that the total amount of initial inter-attractiveness is in terms of the relative masses. Newton made discoveries, then, of relationships existing between special cases that were not of any of the special cases per se. There is nothing in the geometry, chemistry, or physics of the Moon by itself that says it is going to attract another body, nor of the Earth, nor of any of the planets, nor of any of the celestial objects. It was not

until man discovered through thousands of years of observation that something was going on and tried to find out what was going on that he was able to find a rate of change in an inter-relationship that had nothing to do with the Moon or Earth by itself. Mind has this capability to discover inter-relationships existing between, that are not of, special cases, and these inter-relationships are only mathematically stateable, completely abstract generalizations which can nevertheless be objectively employed. The principles of leverage have a beautiful arithmetic and have become the laws, purely and only mathematically stateable, that are the very essence of all machinery and mechanics. Human beings, with their minds, have abstractly discovered quite a number of generalized principles operating in the Universe, such as refraction of light and chemical emulsions, and have applied them to develop telescopes, microscopes, and photography.

Man in the scheme of things

Man is up against a great deal when he tries to get the kind of data that such experimental undertakings have enabled accumulating so very reliably. Our planet is 8,000 miles in diameter, and it is quite something that we were able to measure this a long time ago. Human beings are very tiny on Earth. Looking at the planet from space, one sees the blue of the water and the brown of the land, but not a mountain or a valley or the depth of sea. These do not register because the greatest distance between the highest mountains and the deepest ocean is only 10 miles, or 1/8,000th the diameter of Earth. The size of a human being is about 1/10,000th the distance between the heights of the mountains and depths of the oceans, so we could not be more invisible. Our planet seems big to us, but is incredibly small in the Universe—the small planet of a star-sun that is small when compared to Betelgeuse in Orion's belt, a star with a diameter larger than that of Earth's orbit around the Sun. So, the Earth is in the system of one of the small stars, and its star-sun is one of a hundred billion stars in this galaxy. And, little human beings on this planet, dealing in principles and developing optics, lenses, cameras, emulsions, and so forth, have now been able to make observations and discover a billion such galaxies—galaxies of a hundred billion stars each. The range of observation from the human beings on the planet is 11.5 billion light years—just

multiply each of those light years by 6.5 trillion miles to get an idea of the incredible distances. 99.9 per cent of what man has been able to photograph is invisible to the human eye or is not directly seeable by the human eye, and we have gone inside the microcosm to photograph the atom as well. 99.9 percent of all the observed Universe measured so far is invisible to the human eye. Having learned the unique frequencies of the 92 regenerative elements, man has taken light coming from all galaxies, run it through the spectroscope, and been able to measure the relative abundance of all chemical elements present within 11.5 billion light years of this little planet. Human beings are invisible here, yet able to do these things with this kind of mind.

Look at the integral equipment, the muscle. Nothing. Absolutely nothing. The planet itself is nothing in the scheme of things, let alone the muscle of man. It could not be more inconsequential. Yet, our minds are extraordinary and through these minds we have discovered principles. Whereas all the other living creatures have an integral set of equipment that is burdensome, human beings do not. Human beings have learned, as Bernoulli did, about the pressure differentials in gases and about the principles by which you could explain the negative lift which made the Wright brothers' wing fly. By virtue of the Bernoulli principle and understanding its application in the wing foil, human beings today are making their own wings and flying 20 times faster than any bird ever flew. And when they are not flying, they can take off their wings and let others use the wings with complete interchangeability. Human mind has this ability to discover the principles of the special equipment used by all the creatures and to use the principles much better than the creatures do, even without the burden of having to carry all the integral equipment around when it is not being used.

In studying human beings, I have found that our relationships to our planet and the universe are completely changing. For example, it used to be that everyone was inherently remote and looking out for themselves in the centre of their own wilderness. The average human being at the end of the last century walked about 1100 miles a year, as measured by pedometers. Humans are still walking this same distance today, even though having all kinds of vehicles. By the beginning of World War I, when more vehicles were appearing in America, human beings were riding 340 miles annually in addition to the 1100 miles of walking. Man

was still principally a walking creature, however. World War I was a world mobilization war, and mobilization suddenly brought transportation. After World War I, mass production capabilities were used to produce automobiles, and by 1919 human beings were riding an equal distance to their walking. By the time World War II came, the average American housewife did 10,000 miles a year in vehicles, plus the 1100 on foot, and the average salesman did 30,000 miles. Today, a point has been reached where people like myself have been around the world 39 times, and I am only one of 10 million people to have done this. The total sweep-out of a human being's life, that is, the distance covered in a lifetime, has increased from 39,000 miles at the end of the last century to three million miles today. And the average astronaut can do that in less than a week.

It also used to be that it took three months to travel between the two most distant population concentrations on the globe. It now takes two days—a 45-fold contraction. Suddenly, population concentrations are in what is called *critical mass*. It is possible to telephone people almost anywhere in a couple of minutes. We are absolutely together. All the conditions that once obtained to warrant the formation of separate countries looking out for themselves in the wilderness no longer obtain. We have a completely different set of conditions. Not one of these changes was predicted by anybody. There was no organized activity to make a great one-town world in this great proximity. Not at all. And yet, despite all these changes, we are still in 150 separate pens. Imagine an airplane run by 150 nations, each one having sovereignty and no requirement to coordinate with others if they do not want to. The Russians control the port engine, the Chinese control the starboard engine, the Americans control the ailerons and the rudder, and so forth. They may have some meetings once in a while, but they do not agree about anything and the airplane cannot get anywhere. This is exactly the condition we are in today on our spaceship Earth, and this is precisely the condition that cannot be allowed to persist.

Mistaken assumptions

If any prognostications of any reliability are going to be made, these will be based on the use of the generalized principles. But in learning about these principles, human beings began to employ them in a very negative way. It must be realized that

although human beings are really quite courageous, they have one great weakness: the sense of love and compassion for those they care about. Their fear for the safety of those they love makes them commit themselves to all kinds of fearful programmes. And human beings, having started naked, helpless, and ignorant, have been convinced through the ages that whereas one set of human beings seemed to find a place where nature was very bountiful, some strangers always appeared who did not have such success, were in desperate need of food, and wanted to share this bounty. Both sides rationalized that they were most favoured by God and committed themselves to conflict. The experience of human beings throughout history has unfortunately resulted in the working assumption that there is a fundamental inadequacy of life support for all humans. As a result, only a few can be fortunate. The number of fortunate has increased in this century, and more people seem now to be in on it, but the life support is still inadequate. This is the fundamental working assumption of all politics. Politics exist on our planet solely on the basis of the question of scarcity.

In the beginning of the 19th Century, Thomas Malthus was Professor of Political Economics in the training college of the East India Company. He was the first economist in history to relate the knowledge that we were on a sphere with the total vital statistics received from around a closed-system earth. Until this time, all the great empires had been open systems, going to infinity and giving people all kinds of hopes and all kinds of religions to back their hopes and justify the realization of them. Malthus said: 'Because human beings are multiplying themselves in a geometric rate and producing goods to support themselves only at an arithmetic rate, human beings are quite clearly designed to be a failure.' This was said only a century and three-quarters ago, after all those millions of years of struggling to succeed. And 45 years later, we have Darwin being taken around the closed-system Earth by the great exploiters of the water ocean route. They wanted the scientists to explore with their microscopes and discover what there was to be exploited that could not be seen with the naked eye. Darwin, among all the biologists and geologists being taken around the world, discovered that all the designs and relationships of biological species which had developed in the closed-system Earth were the result of a series of design evolutions which took place as a con-

sequence of the survival only of the strongest strains — the survival of the fittest. So, Karl Marx runs into Darwin and Malthus, agrees with the data on the survival of the fittest, and arrives at the conclusion that workers are the fittest because they know how to handle the tools, the seeds, and the land. All the other people are parasites. The other people, who happened to be in command of things, felt that they themselves were obviously the fittest because they had all the information and controlled the great ocean world. These two great extremes still persist today. Each one of these ideologies says, in view of this natural inadequacy, that it has the best, most logical, and fairest way of coping with fundamental inadequacy. Join us. You may not like our system, but it is the fairest, and you will feel better about things. We cannot guarantee you are going to eat; we certainly cannot guarantee you are going to like it. But because there is not enough to go around, there is going to be a revolution to see which ideology is the most fit to survive. Therefore, the greatest capability must be committed to arms — to getting ready for Armageddon. For the last 20 years an average sum of $200 billion has been appropriated annually for arms by the United States, China, Russia, and NATO. In some years the figure is much higher, but just multiply $200 billion by 20 to get an idea of the incredible waste. We take the highest capability of man, focus it on one thing — how to kill — and in so doing aggravate the fundamental inadequacy. It is wonderful that we have this data today and can realize there is something questionable about what is being done and whether so much waste can be afforded. Still, during this century we have gone from having less than one percent of humanity enjoying a reasonable standard of living to having more than half of humanity, 52 percent, enjoying a standard of living in terms of absolutely superior capabilities of longevity, communications, and getting from here to there that is better than experienced by any king at the opening of the 20th Century. So, despite all the waste that has been going on, we have also been making some kind of a gain. The gain apparently is coming as a fallout of really doing the right things for the wrong reasons — of developing the principles which have been discovered by science, but giving a high priority to destruction. The highest priority of all the great countries, their greatest commitment, has been to achieve an advantage over their enemies. Priorities, then, are established when there is an

emergency—priority of access to the most effective tools, the most effective resources, the things with the highest performance, the best brains, the best trained people.

In engineering, every action has a reaction, so every priority must have an anti-priority. Who gets what is not wanted by anybody else? Who gets the leftovers? Throughout history, because the focus has been on war and because there has not been enough to go around, the home front has gotten the leftovers. Everybody knows there is not enough to go around. No great country has suggested looking after everybody. We know that this is hopeless and that you can go broke trying. But the home front is what people do not know about. As a result, the building world is at least 5,000 years behind the arts of designing for the sea, the sky, and the electronics world. What scientists have ever studied plumbing? They may look into the plumbing when there seems to be a fault with it, but they still call the plumber. The plumbing of ancient Crete is still operating today, and we still use the same system, having added only some purple terminals. How much does a skyscraper weigh? Nobody has any idea within a million tons. They know the weight of the Queen Mary and of a Boeing 747, but if the weight of a building is not known, it obviously is impossible to know what its performance is. We do not know what is being built and are abysmally ignorant in the building world.

In 1927, I decided to commit the rest of my life to trying to discover whether something might be wrong in Malthus and in all the working assumptions based on there not being enough to go around. Malthus assumed food would rot before getting from the place of production to the place of consumption. He did not know that we were going to have refrigeration. He did not know that we would have thin-sheet steel cans plated with tin which would not rust, that we would have hermetic sealing, and that the food he thought would rot before reaching distant mouths would one day reach those mouths by refrigeration and preservation. What else did Thomas Malthus leave out? He assumed that in order to send a message across the ocean we had to send a great big ship and that this would take a long time. Now, with 200 pounds of apparatus, it is possible to talk across the ocean at 186,000 miles per second. Nature is clearly allowing man to do much more with much less, very much more powerfully. I call this doing more with less, ephemeralization. It is apparent in

many things: the number of telephone messages that can be transmitted through a given cross-section of copper cable; the weight of building materials required to create a given amount of enclosed space; the tensile strength of a material in relation to the weight of that material. Nature is also accelerating events, such that the new environment, and the new information we are getting from it, will bring about both further acceleration and a further doing of more with less. We might be soon able to do so much with so little that we might be able to take care of everybody. Implicit in this ability to do more with less is the capability someday to take care of everybody. If this is so, all the political assumptions would become invalid and all war would become invalid. There would no longer need to be a trial of war to see who is the fittest to survive. Fittest, then, would become fittest in the sense of using our minds and abilities to discover the principles of the Universe and to employ these principles. Only by using the principles of the Universe are we able to do more with less. But there is no book on economics around the world, and not even a chapter or sentence in any book on economics, about doing more with less. The fundamental model of economists, of all political economists in history, is fundamental inadequacy. But they are all so highly specialized that none of them knows anything. They do not understand technology. They have not considered this overall doing of more with less.

The function of man

I am very interested in why human beings are here and what our function is. Human beings, in the linear arrangement of things, are not the biggest or smallest. Human experience is omni-directional. We are at the centre of things, and whereas other creatures have brains, we have this beautiful mind. We were unencumbered, unburdened by integral equipment, at the beginning, at the centre. When you get into the order of things, you cannot improve the middle. I expect no changes. Human beings are in the middle of information, learning the principles completely unencumbered, except by the information gathering capability, and possessing an extraordinary ingenuity in developing non-integral tools as a part of their equipment. Human beings are a very different class from any other consideration of other life. Why, then, are human beings on this planet? I think the key resides in a capability of the human mind which we know

of no other phenomena having the capability to discover principles which are mathematically stateable, absolutely and completely abstract, and inherently eternal because there can be no exceptions to generalized principles Because our brains are always dealing in special cases which begin and end and are always terminal, our brains have asked us to explain things in beginnings and endings. But when we get into dealing in principles, we are really dealing in eternity. Human minds have access to eternity. We know of no other phenomena like this. We have already discovered quite a few of the generalized principles. These principles can be employed, but only in special cases again. What do we know about all the generalized principles that have been discovered so far? They are all eternal, all concurrently operative, and none has ever been discovered to contradict any of the others. That is, they are all inter-accommodative. They are all inter-accommodative in a most extraordinarily orderly way and can always be counted on to be so. When we get a complex of something such as this, we speak about a design—a design in contradistinction to randomness. By design, we mean that the parts are deliberately inter-arranged and inter-accommodative. I believe that the human mind is gradually and unexpectedly pulling aside a curtain to discover a great design of Universe and these principles. So far as we know, we are the only creatures having this capability and the only pheonomenon having this capability.

The Boeing 747 is a very complex piece of machinery. Whereas a house has about 500 types of parts and an automobile 5,000 types of parts, the Boeing 747 has almost one million, each scientifically designed, tested, and applied. Human beings do not realize what goes into these extraordinary aeroplanes that are designed to go through the air at 10 times the velocity of a hurricane. The velocity or resistance of the air increases as a second power of the speed. Therefore, the velocity of interaction of the Boeing 747 with the atmosphere is 100 times that of a hurricane. When a stewardess asks you to fasten your seatbelts, you may be passing from one air column that is moving at 100 miles per hour in one direction into another moving at a similar speed in another direction. The stresses the Boeing 747 is going through are equivalent to taking the Queen Mary over Niagara Falls and telling passengers to fasten their seatbelts because it may be a little bumpy. The Boeing 747 is like a piece of spaghet-

ti, however, when compared to the design complexity of the eternally regenerative Universe and its 92 regenerative chemical elements—a Universe that everywhere is always and only inter-transforming. With every turn to play, you get 12 moves, six positive and six negative. If you do not have the same frequencies as something else, you have no interference and can move from here to there. It is an omni-directional affair that is always omni-inter-transforming, operating at all these different frequencies with all the different chemical elements—an incredible number of programmes of frequencies. And it has such integrity of inter-complementation that it is eternally regenerative.

I would think that to have this eternally regenerative Universe —and we now know just a little, of just a few billion galaxies, and we may know of billions more as time goes on—some local sensing capability or organism would be needed. I would think it very important that there be in this local Universe some sensing capability with recourse to the great principles of design. With the freedoms that are possible, it is possible for Universe to design a daisy or a galaxy. All things are possible. Some things take longer than others, but they are all possible. And with such extraordinary capabilities and such integrity, I think a part of that integrity would be to have a local sensing capability, for everything about the Universe seems to have this sensing capability. Human beings are probably here, then, as local monitors to solve local problems. When it is considered what has been common to all lives in all history, the things everybody knows about absolutely are problems. Problems, problems, nothing but problems. But we do not have this problem-solving for a problem-less world, as we have often talked in some nonsensical way, as though the entire Universe was invented to please human beings and the role of human beings was to get it problem-free. This Universe has not been invented to amuse or to displease human beings. I am confident we are here, then, as a function of Universe and as a very important function of Universe. Moreover, we are here to use our minds, not our muscles, for our muscles are nothing. But because we start with the working assumption that there is not enough to go around, we start ignorant. We have this $200 billion a year going for muscle, for resolving things with power and a gun, not with the mind.

The more-with-less transformation

Human beings have been on our planet at this time very much in the way the embryo of a chick has been designed in an egg that has all the chemical nutriments to develop the embryo. Gradually, with the right chemical inputs, with additional inputs of heat, and with the right frequencies, the embryo develops into a chick. Having used up the nutriment inside the egg, it looks around for more nutriment and starts pecking around. Suddenly, it inadvertently breaks the egg open. I think all humanity has been in a group-permitted egg of ignorance. We have an incredible amount of resources with which to discover by trial and error what we are really here for, but only if we can get over the idea that we are inside our little egg and that is all there is to it. I am tempted to say, ego. At any rate, I think we are just now breaking out of our egg, and the most difficult of all phenomena is birth. I think we are going through a final exam to discover whether we really are developed, and the acceleration of the critical curve (of new discoveries, of the invention and application of new technologies, of human patterns, and so forth) indicates to me that in 1985 we will know whether human beings are going to stay on our planet. To pass the final exam, we must get mind, not muscle, in control of our affairs. Are we going to do things by really thinking about the data? The data now is very exciting and surprising.

I have been carrying on something called the World Game, which is simply a modification of the war games of the Navy. The Navy's idea was to see how to get the world under control. Mine is the same, but with different objectives: to make the world work better and have everybody win. I thought it might perhaps be possible to prove that it is possible to take care of everybody. The environment is continually changing, and the goal is to develop an environment that is very favourable to human beings. The World Game deals in total world resources and total technology and sets about to find out the problems of making human beings a success. In the World Game, all the resources, trends, and so forth are studied, but problems are solved only by comprehensive, anticipatory design-science. This comprehensive, anticipatory design-science is exactly the way a Navy is organized or an airplane that can safely cross the great oceans is produced. Having comprehensive, anticipatory design-science, all problems must be solved by artifacts.

One World Game Seminar, conducted by well-educated young people, has tackled the energy problem. Their report, *Earth, Energy, and Everybody*, is a programme like the Apollo moon programme which detailed all the first and overlapping things that had to be done to get man to the Moon and back safely. Doing the same kind of programme on energy studies and dealing only in proven world resources of energy, in proven technologies, and in proven rates at which those technologies can be produced, installed, and made operative, the World Game was able to put out a report which makes it absolutely clear that by 1985 all humanity can be enjoying the same energy income as enjoyed exclusively by the United States in 1972, while concurrently phasing out the use of all fossil fuels and all atomic energy. All humanity by 1985. This is very relevant to everybody. This was not known to be possible. We now know, absolutely incontrovertibly, that it is possible.

In 1975 the World Game undertook a study of world food, and we now have an incontrovertible report that the food is adequate for all humanity. There are a great many inefficiencies in handling, in holding off, and in the game of price controls, all of which frustrate food distribution, but the world's food-producing capability is adequate to take care of all humanity. With the resources, technologies, and rates of production and reproduction now known, it is highly feasible to take care of all humanity at a higher standard of living than ever before and to do this in 1985. This will make the working assumptions of all the great political states—based on the assumption that there is not enough to go around and that it has to be you or me—totally invalid. All the great perils on this planet have been centred on those working assumptions. A fairly prodigious number of people, several million and possibly one quarter of a billion, have looked into, and now know more or less, what it is I am saying. But the great majority of humanity is still engaged in bureaucracies or great corporations or great states and is not thinking. Humanity still has an enormous non-thinking inertia and an enormous fear of yesterday's seemingly incontrovertible pattern of inadequacy.

Whether humanity will be able to make it, I do not know. I do know something that humanity did not know before, and that is that we have an option. I do know that it is absolutely clear that survival only of the fittest is no longer the reigning phenomenon. This is a startling change. You and I have watched a great many

beautiful children grow up, suddenly discover that there was not enough to go around, and develop what is called enlightened self-interest. Having to look after their family and their friends, they rationalized why their side should have things, giving rise to religions of all kinds and to different ways of saying who is the most devout and the most deserving to survive. Now, all this is simply unnecessary. Rationalized selfishness, which seemed to be absolutely valid up to yesterday, is no longer valid. Quite clearly, we are here for Universe and, always born of two, not one, we are all of us involved with one another. All the information and all the experiences of humanity are involved and being integrated here. The curves show quite clearly, when we talk about our future, that by 1985 everybody can be successful. Only under these conditions can all humans function as the local-universe problem-solvers they were invented to be. Only if right has come into complete ascendancy over might will humanity remain alive on board our planet in the 21st Century and be here for untold millenia to come. Humanity is now going through its final examination as to whether it can qualify for its universe function and thereby qualify for continuance on board the planet. Whether humanity will pass its final exams for such a future is dependent on you and me, not on somebody we elect or who elects themselves to represent us. We will have to make each decision, both tiny and great, with critical self-examination—Is this truly for the many, or just for me? If the latter prevails, it will soon be curtains for all.

This article has been adapted from a talk by Buckminster Fuller, the design-science explorer whose work as an architect (the geodesic dome) and as an engineer (dymaxion applications of doing more with less) has changed many people's perceptions about man's relationship to the Universe.