

Too many Asians / John Robbins.

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JOHN ROBBINS

TOO MANY ASIANS

A disturbing account of the current population explosion
in India, China, Japan and other Asian countries, and
how it threatens the future.



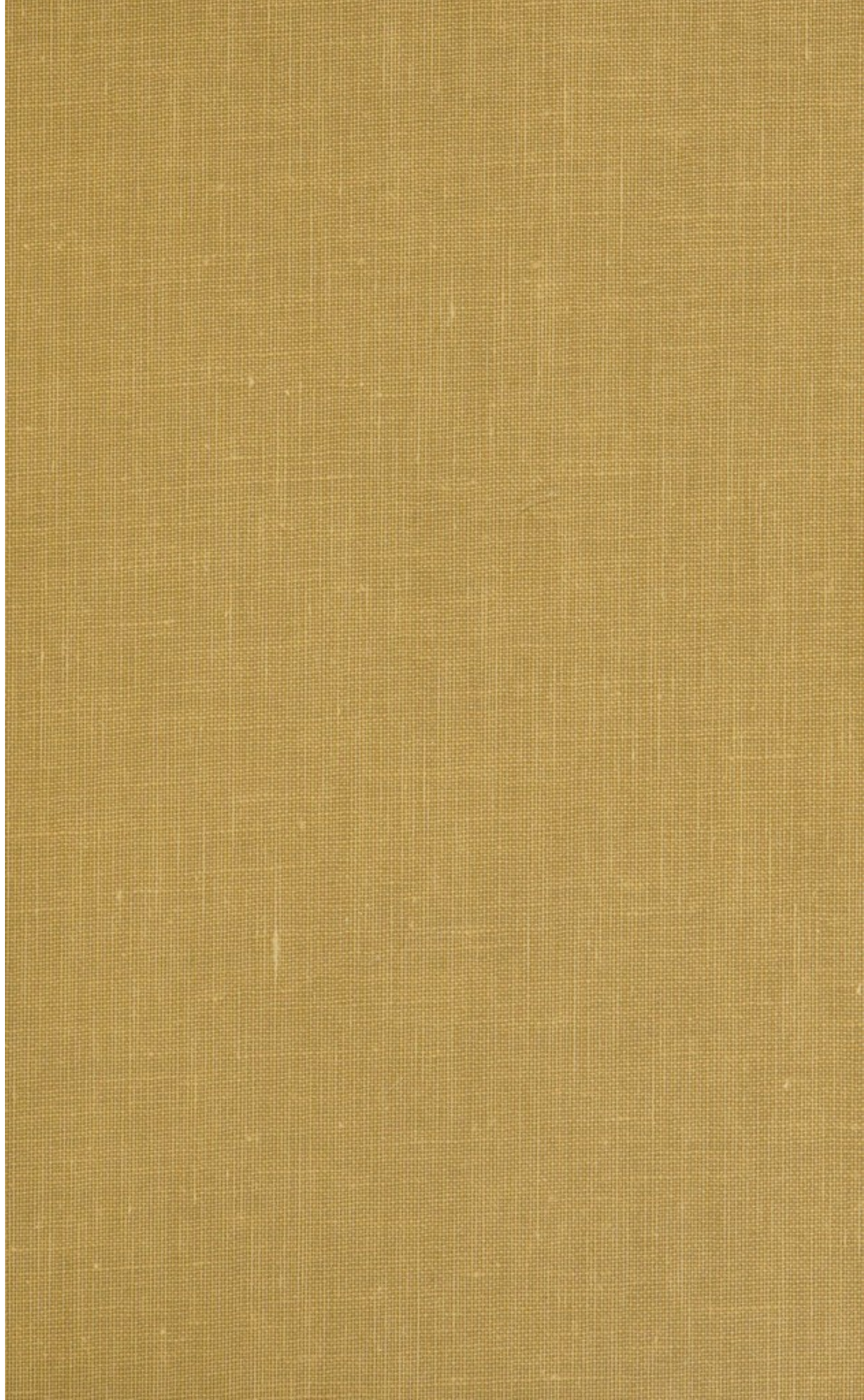
TOO MANY ASIANS is a compelling account for the non-specialist of the recent history, the mores, the economics that make today's population explosion in Asia so demanding of concerted world-wide understanding and action.

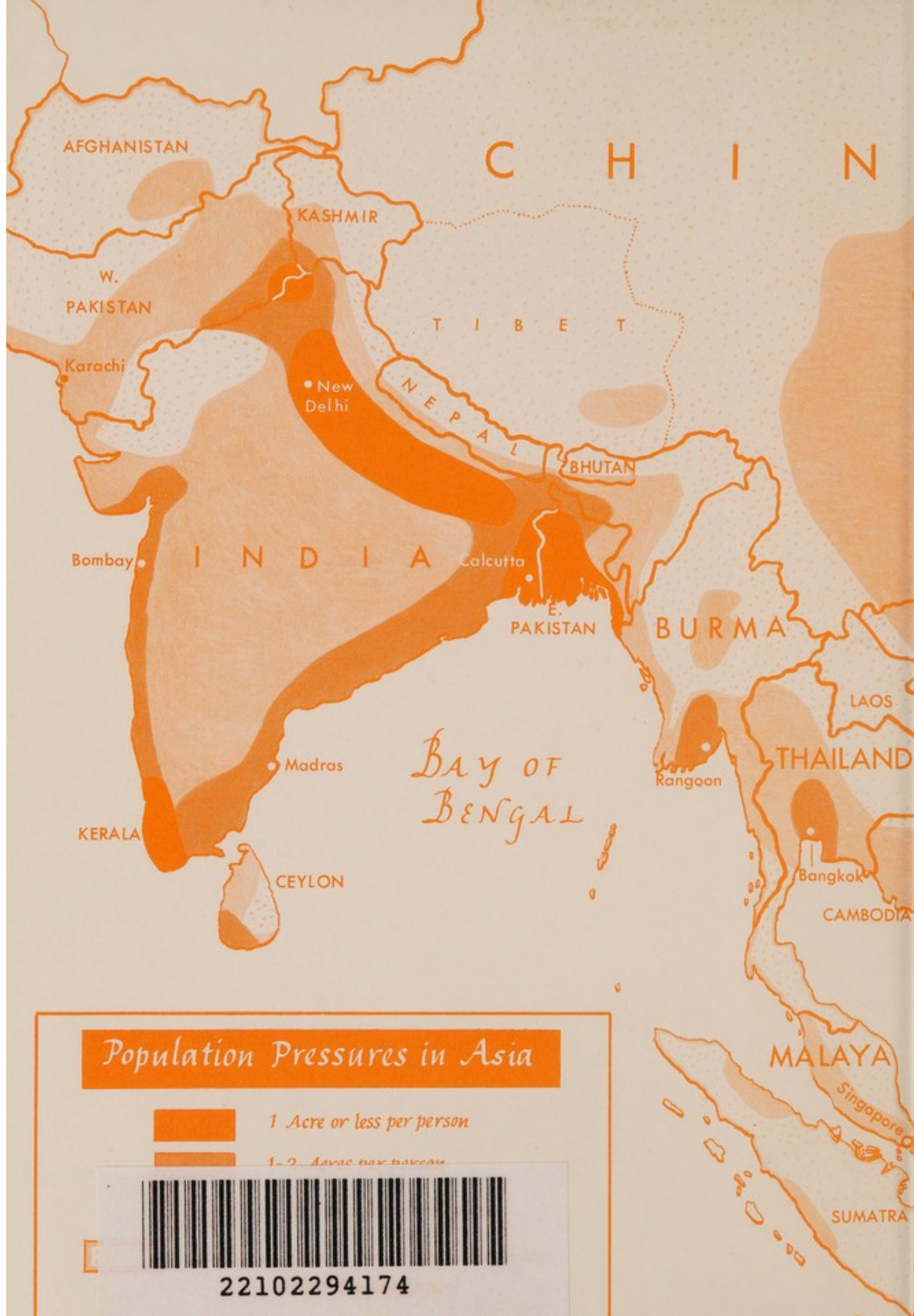
John Robbins, formerly of the *Cleveland Press*, has traveled extensively through Asia and the Middle East studying the population dilemmas of nineteen countries. This absorbing and humane book contains up-to-the-minute reports on the noble but benign efforts at population control in India; the ruthless but potentially effective programs of the Red Chinese; the tenuous hopes for a cheap and effective contraceptive pill; and the necessity for new kinds of economic aids, educational campaigns, and biological research.

TOO MANY ASIANS puts the spotlight on a problem which is considered by many even more grave than that of nuclear warfare.

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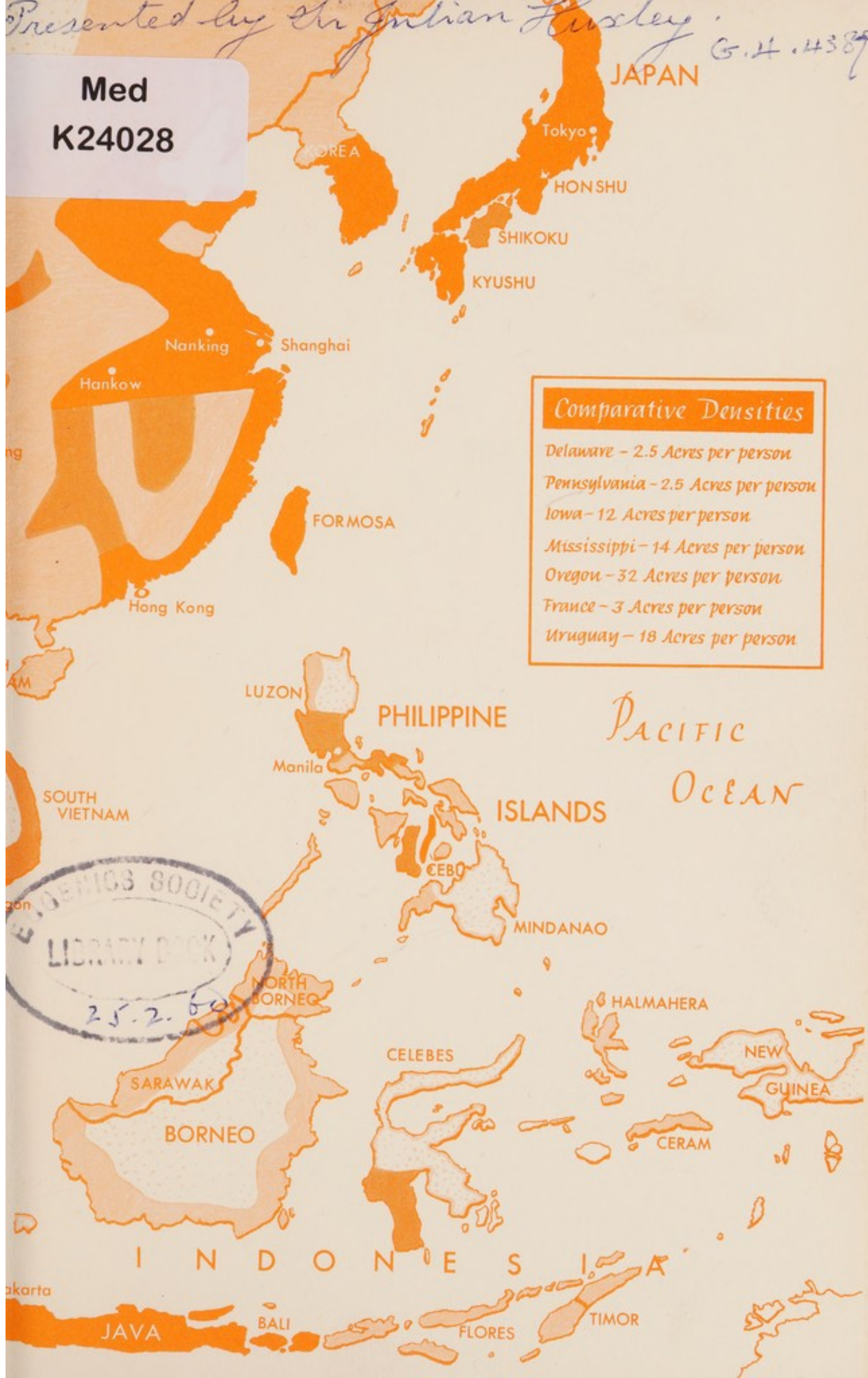
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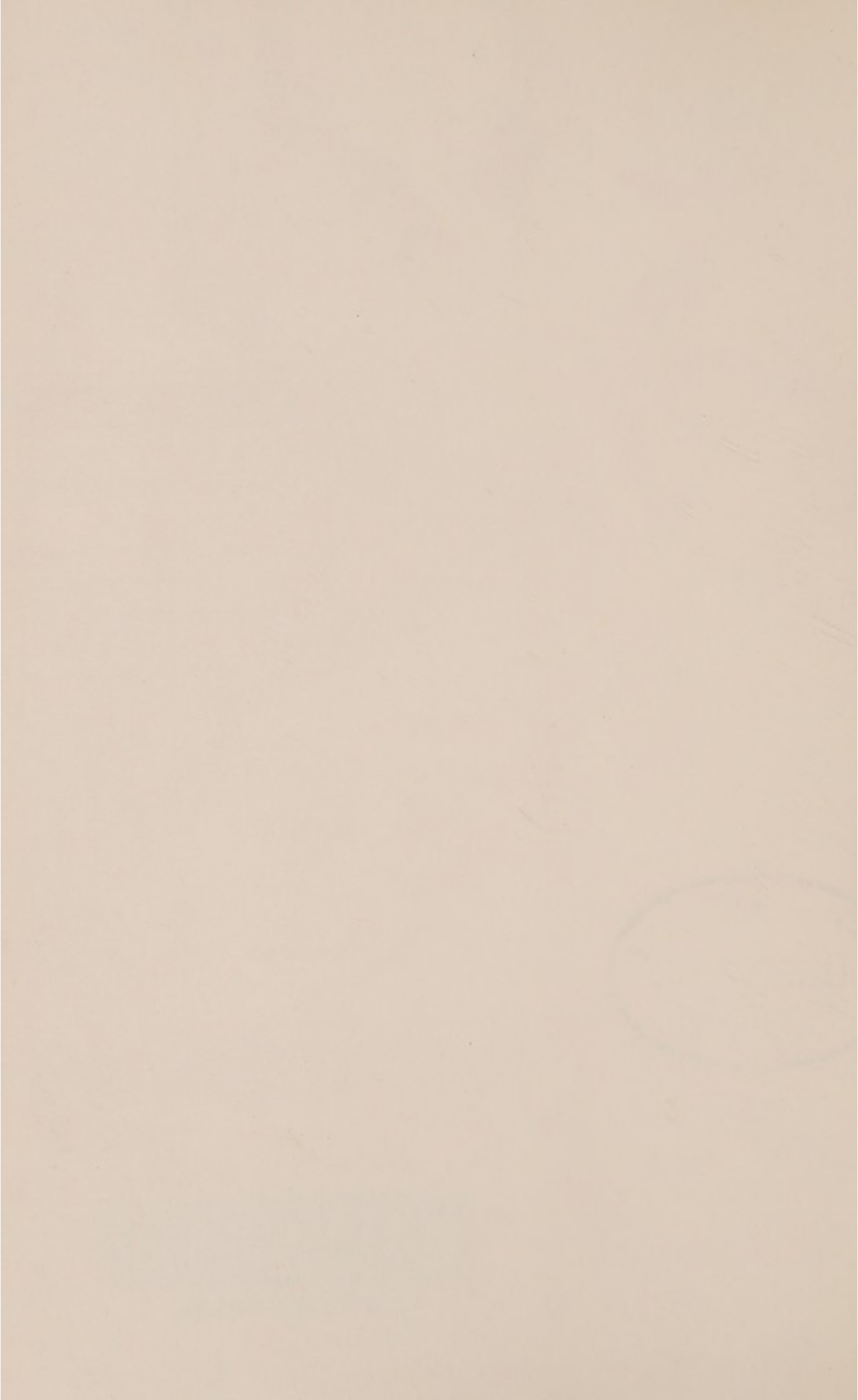




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TOO MANY ASIANS

Donald A. Duggan, Ph.D.

Editor, The New York Times

New York

1977

TOO MANY ASKING

John Robbins

TOO MANY ASIANS

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I did the initial research for this book while traveling through Asia on a Reid Fellowship, granted by the Ogden Reid Foundation. To say that I was grateful to the Foundation for the opportunity to widen my horizons would be the most severe sort of understatement.



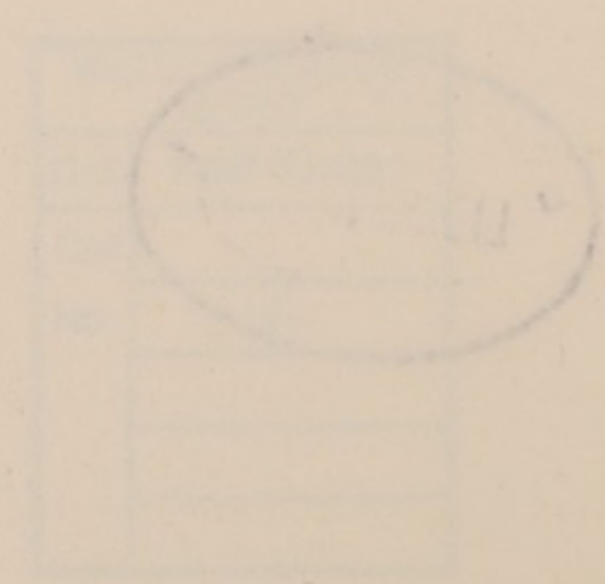
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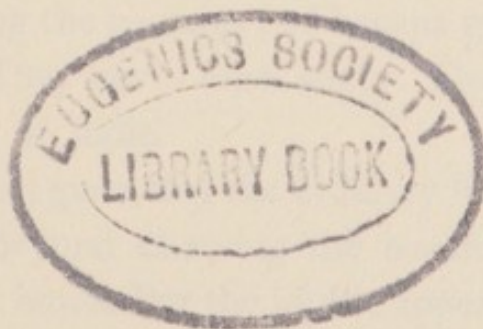
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TOO MANY ASIANS



TOO MANY ASIAN



CHAPTER ONE

Coconuts and Communism

At the southern tip of India, reaching from Cape Comorin north for four hundred miles, lies the Indian state called Kerala. The word, in Malayalam, the language of most of the district, means "Coconut Land," and Kerala lives up to its name. Each coastal village boasts its own coconut grove, and the villages are so near to each other that the groves appear to extend without a break for miles. Kerala's palm-fringed beaches on the blue Indian Ocean look like the clean, sandy shores of some utopian South Sea isle. Its weather is tropical, warm the whole year around, and the smiling Keralans in their sparkling white dhoties and saris wander gently among the coconut and banana groves. They never seem to hurry. They never seem angry. They are among the friendliest people of India.

At first glance a visitor would guess that the ordinary Keralan had no cares in the world beyond choosing the banana tree from which to pluck his next lunch. But the idyllic appearance is all on the surface. Despite its deceptive beauty, despite its spurious air of contentment, Kerala has long been a snake nest of Communists and an established outpost of world communism.

In 1957 the happy, smiling Keralans voted into power in their state a Communist government. The new premier had a name as solid and mellifluous as that of any Bombay bank president—E. M. S. Namboodiripad. But in spite of the four thousand miles that separated him from Moscow, he was as completely subject to the Kremlin discipline as the puppet premiers of Rumania, Bulgaria, and Hungary. His election gave Kerala the distinction (vacated by San Marino) of being the only area in the world surrounded by non-Communist territory to be under a Communist government. (It isn't, of course, a sovereign government. An Indian state, like an American state, leaves the conduct of foreign affairs to the central government.)

How did a calm and peaceful little part of Asia come to be such a hotbed of communism? There are a number of complicated answers to this question, based on history, politics, and economics. But two underlying reasons stand out. The first is a physical fact: Kerala is so overcrowded that its people simply do not have enough food to keep them living above the concentration-camp level. The state is one great tropical poorhouse. The second reason is psychological: Although Keralans have heard of other people who lead better, more abundant lives, they can see little hope of improvement, in the normal course of events, for themselves. At the time of the election they were ready to turn to anyone who would promise them relief from their hunger and poverty. The Communists promised them the Marxist nostrum, and any change looked as though it would be a change for the better.

If they actually did expect to provide a real and noticeable improvement in the economic status of the Keralans, the Reds quickly found they had their work cut out for them. By the middle of 1959 they were in trouble. They found themselves in the unusual position for a Red government of being faced

with widespread anti-Communist demonstrations which they couldn't quell. These were prompted partly by a Communist proposal to take over control of the private and religious schools, and partly by the deteriorating economic conditions of the state. The state government used the police to limit the demonstrations, but because it was subject to the control of the central government in New Delhi, it couldn't use the sort of forceful measure which seems to appeal to the Kremlin and Peking when faced with comparable circumstances.

The basic trouble in Kerala, which any government of that unhappy state would have to face, is that there are simply too many people for the resources of the land to support, even in the humble style to which Asians are accustomed. And every year the number of people grows larger. The land and the resources, if they are developed at all, are developed slowly.

For a century and a half, beside their tropical seas and under their waving palms, Keralans have been increasing and multiplying. In that time the population has doubled, and doubled again. Despite its Utopian appearance, the state is one of the most crowded areas in the whole crowded country of India, and in the whole crowded continent of Asia. It is a state the size of New Hampshire—and just as mountainous—with a population comparable to that of all New England. There are more than a thousand Keralans for every square mile of land, or three persons for every two acres. Much of the land is too steep and rocky to be useful for farming. In some of the more fertile coastal areas, therefore, as many as ten persons must depend on each acre for a living. There is no industry to speak of to lighten the load on the land. Although Keralans are among the best educated of all Asians—the literacy rate is nearly 80 per cent—the unemployed number almost two million out of a population of 15 million. The shady palms and banana trees merely hide the hunger and misery of the people.

If Kerala were merely an isolated example of how a certain unique set of political and economic conditions can interact to yield the result of a Communist government, its story would be interesting but not particularly significant or alarming. Instead, however, the very conditions that have contributed to the strength of the Communists in this one Indian state are strikingly comparable to conditions in most Asian countries—those lying in the broad belt running from Afghanistan on the west, through Pakistan and India, dipping down into South-east Asia, and on through China to Japan.

This belt stretches five thousand miles from end to end. It contains about one-sixth of the world's land, on which live slightly more than half of the world's nearly three billion inhabitants. The area includes such a wide diversity of lands—hot and cold, jungle and desert, mountain and archipelago—and peoples—light-skinned and dark; Aryan, Malay, and Mongol; Moslem, Hindu, Buddhist, and Confucian—that it seems highly illogical to classify it as one region, a unified or homogeneous whole.

In economic affairs, however, there is a remarkable sameness throughout the area. Country after country follows the same general economic pattern—with the main characteristics of the pattern in Kerala. Except for industrial Japan, the economy of the region is based overwhelmingly on the land. More than seven out of every ten persons owe their livelihood to some form of farming. Again with the exception of Japan, each of the countries falls into the classification of "underdeveloped." Third, each of the countries is densely populated in relation to its arable land and its resources. In other words, throughout the area the vast majority of the people are desperately poor.

Because these three factors give a basis for comparing conditions, the United Nations groups the countries of the whole area together for economic affairs. The study of the economy

of the region is the responsibility of one U.N. agency, the Economic Commission for Asia and the Far East. ECAFE does not apply itself to the rest of the massive continent of Asia, meaning Siberia and the countries of the Middle East.

It is with the ECAFE region that this book will deal. Principally it will be concerned with one particular aspect of this region—the relationship between its rapidly growing population and its future in a world torn by a “cold war.”

The population of the ECAFE region—which, for the sake of simplicity, let's just call “Asia”—is growing at a rate of around 1.7 per cent a year. The rate varies between countries. In some it is above 2.5 per cent. In most parts of Asia the rate of increase is speeding up. The precise figures are of little significance. The important thing is that population grows like compound interest. Even low rates double the principal in a surprisingly few years. The U.N. demographers—scientists who study population trends—in 1959 published the results of a study they had made of population growth and its relationship to problems of economic development in the ECAFE region. They made this prediction:

Assuming a continuing decline in mortality but no decline in fertility, projections show that the rate of increase in the region will have risen to 2.3 per cent in twenty years' time. In a number of countries, the rate of increase will be above 3 per cent. In about thirty years, the projected population of the region, on these assumptions, will have doubled and will be equal to the whole population of the world today.

The danger is that long before 1990 each Free Asian country, as it slides downhill past some final limit of poverty and hopelessness, will follow the pattern of Kerala and choose communism.

So the problems of Asia's swelling population, far distant as

they may seem from the West, are in actual fact alarmingly near at hand.

"But surely," an American or European reader is very likely thinking at this point, "the situation can't be *that* bad. Haven't I read that the government of India is already taking action to bring its population growth under control? And won't the rest of Asia follow suit?"

The sad fact is that the government of India, although it recognizes the dangerous position in which population growth puts the country, has taken only a few tiny and futile steps in the direction of placing a damper on the explosion. The Indians, in effect, have talked much and done little about limiting population growth.

"By the year 2000, China and India alone," a 1957 ECAFE report predicted, "will if these [present] trends continue, have a population roughly equal to the world's population today."

But as for China, although the truth about what is going on in that vast and populous country is hard to discern, there are indications that the Communist government in Peking not only has recognized the danger inherent in population growth but is taking active steps to halt the trend. The Chinese are also publicly discussing the growth of their population, and there is a possibility—or even a probability—that they are quietly doing a great deal about it.

The relative success or failure of the economies of these two countries during the next few years will almost certainly determine Asia's future. And population growth bears a close, inverse relationship to economic development.

With the sole exception of industrialized Japan, the rest of Asia is for the moment following China's policy of saying little about population growth, and India's policy of doing little about it.

True, even if a Free Asian country did institute a drive to

limit its population growth, it might still, for any number of other reasons, fall victim to the Reds. But the countries most plagued by overpopulation and facing the dimmest prospects of relief will be the weakest countries. These are the ones most likely to fall.

There is no single Asian country the loss of which would, in itself, be an irremediable disaster to the Free World. No one Asian country holds the keys to our security.

On the other hand, the defection of any now Free Asian country would have an adverse effect on the strategic position, both military and economic, of all the rest of us who remain free. If nothing else, it would add new resources and—for what it's worth—new manpower to the strength of the Communist bloc. More important, the loss of any one country would mean the progressive weakening of each of its neighbors.

Even the loss of all Asia would not immediately seal the doom of the United States. True, Asia is a great supplier of raw materials—rubber, tin, palm oils, tea, hemp, and alloy metals. But America has learned how to live with synthetic substitutes for most of these materials.

The blow would be felt most severely by our allies in Europe. Europe's economy depends on a steady flow of just such raw materials for industry as Asia supplies. Almost as important, Europe looks to Asia as one of its great export markets. The loss of Asia would directly weaken the strength of NATO, and the will of Europeans to oppose communism.

At the same time, were Asia to fall to the Communists, the oil-producing countries of the Middle East, with some two-thirds of the world's oil reserves, would find themselves out-flanked. Of all the raw materials which Europe secures from abroad, it could least afford to do without oil, which it is rapidly coming to depend on as its principal source of energy.

Nor would the effect of a Communist take-over in Asia stop

there. Across the Arabian Sea from India and Pakistan stand the great empty spaces of Africa, with their understandable allure for the inhabitants of a crowded continent. Even without pressure from outside, Africa is in a ferment. From bases in Asia the Reds could give a hard, direct push that would start the countries of Africa toppling like dominoes. Possession of Africa would give the Kremlin control over still more of Europe's sources of raw materials and would leave the advanced Red outposts looking across the South Atlantic at Latin America.

Finally, we should realize that there is much more involved in the population explosion than the threat of communism, important as that is. The problem of population growth concerns the future of the human race. Each new starving belly among the millions of already hungry Asians adds to the sum total of human misery by an amount so definite as to be almost measurable. If humanity is to have a future, the unrestricted growth of population in already overcrowded lands must be brought to a halt.

This is a responsibility of all of us, no matter what part of the earth we inhabit.

What can we in the West do about it?

This book is an attempt to analyze the population problems of Asia and discuss their causes and their various symptoms. It does not present final answers to these problems; to many of them, there seems to be no neat, precise answers. The book does suggest some courses of action that we can take—as well as some we cannot—in an effort to remedy what may be the world's most dangerous situation.

CHAPTER TWO

Crowded Asia

It's surely no news by this time to any informed person that the world is undergoing a "population explosion." Our remote ancestors took thousands of years to multiply to a point where their numbers reached the half-billion mark—an event which, although no one was aware of it at the time—occurred about 1650. Starting from just about that date the human race began to grow faster. In only two centuries it—or, if you will, we—doubled in numbers, passing the billion mark sometime before 1850. The pace kept speeding up. In the past century, the world population has more than doubled again, and today we are rapidly approaching the three-billion level.

Every year of our own era, the number of people on earth grows by around 50 million, equivalent to the population of New England, New York, New Jersey, Pennsylvania, and Maryland, or the entire population of Great Britain and Northern Ireland. Or, to put it another way, every day we increase in number by 140,000, adding what amounts to more than a daily Duluth to the world.

And, because our rate of growth is steadily accelerating, it appears that we are likely to double in number again within forty years. Before the turn of the century, according to United Nations estimates, we are very likely to pass six billion, and we may nearly reach seven billion. Beyond that point, no one dares forecast.

This numbers game has lost its capacity to shock. Although the population explosion is as dangerous to mankind as the H-bomb, few people are concerned about it. It's easy for anyone to picture what an atomic war will do to him, personally. It's much harder for any of us to visualize the effects on our own lives, or on those of our children, of the heedless multiplication of our race. The failure of our imaginations gives us confidence that the evil will not really occur. When it comes to worrying about the future of our crowded planet, we are a worldful of Micawbers, trusting that "something will turn up."

And it's true that in a great part of the world we can afford to delay taking action about our own increase in numbers, and that of our immediate neighbors. In the affluent societies of Europe and the United States, our rates of increase of industrial production more than match the growth of our populations. We may complain occasionally about traffic jams, urban blight, shortages of park land, and the need for "big government," but we fail to associate these phenomena with the steady rise in the census figures. In Africa, and even more so in Latin America, there are still great reserves of land and natural resources to be opened up by the new citizens. No one need feel crowded; he can always head out into the open spaces. In a few isolated countries, such as Canada and Australia, society is even crying for new members.

But one important part of the world, Asia, cannot afford to procrastinate. Not that Asians are growing in number faster

than the residents of other continents; they are being outpaced both by Latin Americans and by Africans. Even the United States has nearly as high a rate of growth as such Asian countries as India and Korea, and a higher rate than Burma.

Nor do the bare figures show that Asia is the most crowded part of the world. Europeans are packed together even more tightly than Asians. But there is a significant difference. Europeans not only are blessed with a much higher share of good, productive farm land on their continent, but, far more important, they have an advanced industrial economy to support them.

The overwhelming majority of Asians depend on the land. In relation to the amount of arable land they have available, and to the state of their economic underdevelopment, they are by all odds the most overcrowded mass of the world's citizens. They are poor almost beyond the capacity of Westerners to realize, and it is their overcrowding that has impoverished them. There are simply too many Asians.

Suppose that all the land suitable for cultivation in the United States were divided equally among all of us in the country. Each American would have three acres. If Latin American land already under the plow were equally divided, each Latin American would have 1.3 acres, plus a reserve of 30 acres, some of which would be suitable for farming if it were cleared. But if all the arable land in Asia were divided, each Asian would receive as his share slightly under one acre. And most of the land that could possibly be farmed in Asia is already being farmed. There are few reserves for expansion.

The most crowded nation in the world is Japan, where there are six persons for every arable acre. As in Europe, however, the crowding in Japan is relieved by the nation's industrial economy, so it is hardly a fair example of Asian conditions. No other country in Asia has a significant amount of industry to

rely on. Yet Formosa and South Korea have densities of four persons per arable acre. Ceylon and China have two persons. The other countries are not far behind.

Despite the already tragic overcrowding of Asia, the growth in the number of people goes on, at a rate that shows signs not of slowing but of speeding up. China each year is adding to its population about 13 million persons—a new Canada every year. India is adding about six million—a new Michigan, or a new Austria. To give each new Chinese his own plot of arable land of the national average half-acre size would annually take a fertile territory the size of Maryland plus Delaware. To give one acre apiece—a more generous allotment—to each new Indian added to the population over a ten-year period would require a “farm” the size of Illinois plus Indiana, or the size of West Germany.

Clearly, Asians are pauperizing themselves. With every year they slide deeper into the quicksand of misery and hopelessness.

And yet by 1990, according to the ECAFE forecast, if present trends continue, Asians will double in number. It is easy to imagine the United States, or Canada, or Brazil, or even—with somewhat more effort—France supporting twice its 1960 population at a reasonably decent standard of living. It is not possible, on the other hand, to imagine double the present number of Asians thirty years from now, contented with their lot, producing enough food to keep themselves strong, and living at peace with one another and with the rest of the world. The Asian standard of living is so low today that it hardly seems possible it could go lower. How can twice as many Asians hope to live on even today's miserable scale?

There seems, obviously, to be some sort of contradiction here. If Asians are living so near to the margin of existence, how

do they happen to be propagating their kind at such a record rate? The answer lies mainly in the advances in public health which have been made during the past century, and particularly during the past thirty years. Vaccination, sanitation, antibiotics, and DDT have extended the length of the human life at little expense to society. Although we as a race haven't found ways to improve the lives of all our membership, we have found ways to lengthen them. Nearly all over the world, death rates have fallen or are falling fast. Asians today aren't living better than their ancestors, but they are living longer. In particular, more of them are living through infancy and growing up to have infants of their own.

Demographers divide the world into three general classes of countries. First, there are a few regions comparatively untouched by modern civilization, in which death rates remain at very high levels. In a primitive society of this sort, where fewer than half of all the babies born live to maturity, families must have many children if the society is to survive. Therefore, birth rates are also high. Over a period of years, birth rates and death rates tend to balance, and the populations remain stable. The average annual number of both births and deaths may run as high as around 45 or 50 for each thousand persons. Only a few centuries ago, this was the pattern of births and deaths for the entire world.

In the second type of country, throughout the underdeveloped regions of the earth, modern health and sanitation measures have lowered the death rate. But the birth rate remains at or near the traditional high level. Even when society's need for a high birth rate has disappeared, its members continue the custom of breeding large families. The death rate in such a country may be 20 or 30 per thousand lower than the birth rate. The difference between the number of babies born in a year and the number of people of all ages who die in that

year represents the country's population growth. The annual population increase, therefore, may be as great as 2 or 3 per cent.

This pattern of births and deaths is considered to be a transitional phase in a country's development, but it is often a transition that goes on and on. Sometimes it seems to be endless.

The third type of country, exemplified by western Europe and the United States, has developed from the first phase through the second phase, and now enjoys not only a low death rate but a comparatively low birth rate, too. Death rates of 10 per thousand or lower are common in the Western world. Birth rates run anywhere from the 15 per thousand in Sweden and England to around 25 per thousand, the post-World-War-II level in the United States. Populations are increasing in most of these countries, but usually at not more than 1 per cent a year. Even in the United States, in which the natural rate of increase (not counting immigration) is about 1.5 per cent annually, demographers consider that the growth is "under control." The death rate can't drop much further, nor is the birth rate likely to rise much above its present level.

Most Asian countries fall into the second category—comparatively low death rates and very high birth rates. There are no precise figures. Most Asian censuses tend to be little more than estimates. (In Burma's 1953 census, some of the first census takers who ventured out of the cities were attacked by dacoits or menaced by tigers. It would be hard to blame their successors for using safer methods of deciding on the population of remote villages.)

But, from the figures at hand, demographers estimate that the birth rates of most Asian countries are still well above 40 per thousand—in the same range as birth rates in the most primitive regions. In British Borneo, Cambodia, Formosa, Laos,

Pakistan, the Philippines, and Thailand, according to a 1959 U.N. estimate, the birth rates are between 45 and 50. Death rates have generally dropped into the twenties or below. What is more important, modern health techniques have hardly touched great areas of Asia, and there is every indication that they soon will. Immediately, death rates can be expected to fall, possibly to nearly the Western levels. There is no reason to believe that the birth rates will experience a natural drop. The spread between the number of deaths and the number of births in Asia appears to be about to widen. That is why the United Nations experts estimate that the rate of population growth in Asia is going to grow steadily for the next few decades.

This growth is not inevitable. There is no immutable law which dictates that Asia or the world must double in population by the end of the century.

There is, in fact, a way—a sane and healthy way—that population growth could be brought under control in Asia.

To stabilize population growth, it is obvious that the gap between death rates and birth rates must be narrowed. This method doesn't involve altering death rates. To allow deaths to climb back to their old level, whether by withholding medicines or by any other means, would be inhumane, to say nothing of being an impractical effort to turn back the clock.

But birth rates can be lowered.

They must be lowered if Asia and the world are to enjoy a future of peace and freedom.

Lowering birth rates is no easy solution to the world's problems. You can't lower a country's birth rate with an application of DDT.

But the world does have at its command a number of techniques which could be put to use, in Asia or anywhere else, to control birth rates and stabilize population growth. Contraceptive devices are, in the Western world, a part of everyday life. Sterilization of either men or women is known to be both safe and easy. And, although the very idea is repugnant to Christian ethics, scientists are beginning to believe that, in this era of antibiotics, abortion is neither especially dangerous nor inherently unhealthy.

And, above and beyond all the known techniques, the world may be on the threshold of the discovery of some new and remarkable contraceptive that will be safe, cheap, and reliable. This nonexistent and elusive product, which is being sought by researchers in many parts of the world, has come to be known in scientific circles by a nickname—"The Pill."

The lowering of birth rates, however, is far more than a question of techniques. It is, rather, a question of attitudes. A national death rate can be lowered by an executive decision. The lowering of a national birth rate depends on the frame of mind of millions of individuals. Only if enough people, as individuals, decide that they will have no more children, or that they will delay the birth of children, or that they will space out the time between the births of their children—only then will a country's birth rate fall.

Even if "The Pill" were to be made available tomorrow in every home in Asia, there is considerable doubt how many Asians, either men or women, would choose to take it.

Asians will eagerly line up for a three-year vaccination against smallpox. Would they be willing to accept a three-year vaccination against conceiving children?

If the rampaging population growth in Asia is to be halted, Asians are in need of two things: a new attitude toward family

planning, and command of the most improved techniques of birth control.

In both of these fields, the West has the power to help.

Many Westerners, and especially Americans, have one of four points of view toward the idea of slowing or stopping population growth in far-off parts of the world such as Asia. To some it seems foolish; to others, immoral; and to still others, so simple as not to be a problem at all. A fourth group, while clearly recognizing the effect that population growth is having on Asia, is willing to let the Asians stew in their own juices.

In America today, and to a lesser extent in many other parts of the Western world, population growth is automatically equated with an increase in prosperity and national strength. Each new baby born is hailed by the business community and by most economists as a potential customer. The prospect of a more populous America is held up as the most hopeful of all signs that the economy of the country will expand. The slight downturn in the number of babies born in 1958 was generally regarded not only as a result of the recession but as a deterrent to recovery. Only a few maverick economists charge that population growth is unhealthy for the United States, that the country has passed its optimum population, that it is consuming its natural resources at too fast a rate, and that we, too, are overcrowding our land and ourselves as we grow more numerous.

Whatever the essential truth in the gloomy predictions of this minority, there is certainly a case to be made that in a developed, industrial economy, population growth makes for prosperity. Land in itself is not the key element in the capital structure. "More people" means not only more consumers, but

also more producers, in the mines, in the mills, and on the machines.

But in Asia the coin shows its reverse face. There is no need of additional consumers; there are not, as it is, enough goods to go around. Little is produced except what is produced on the land. There is almost no industry, and what there is, is concentrated in Japan and a few parts of China and India. The land is already intensively cultivated. Its production can be increased, but only with difficulty and through the application of capital. There is no need of additional producers; more hands tilling the same soil won't produce more crops to feed the extra empty bellies. Population growth in Asia leads not to prosperity, but to poverty.

A second large group of people in the West believe that tampering with the force of population growth is contrary to the will of God. The most important bloc upholding this view consists of the followers of the Roman Catholic Church. It is the official Catholic view that any "artificial or unnatural" methods of controlling the conception of babies are immoral. Not only does the Church in America teach this view among its own membership, but it has injected the issue of the morality of birth control into politics. In two states with large numbers of Catholic voters, Massachusetts and Connecticut, the legislatures maintain laws forbidding doctors even to give out information on family planning to their patients, whether the patients are Roman Catholic or not.

Many Catholic leaders are well aware of the problem in morality posed by the population growth of poverty-stricken lands. Is it immoral to forestall the birth of a baby that will probably go hungry, that may soon die of malnutrition, and that will certainly add to the prevailing misery of its family, its village, and its country?

On the other hand, some Catholic spokesmen insist that no

such problem exists. The Most Reverend Joseph A. Burke, Roman Catholic Bishop of Buffalo, recently charged that "pseudo scientists" are trying to "frighten" humanity by playing up the threat of overpopulation. "I think these worshipers at the shrine of Malthus will one day have to eat humble crow," he added. Any Western action to assist Asians to limit their population growth will have to take into account such important attitudes as this.

The third point of view prevalent in the West—and in this case even more common in Europe than in America—is that the task of putting a damper on population growth is an easy one. Europeans for more than a half-century have been using one or another method of birth control to limit the size of their families. In most western European countries the balance between births and deaths has stayed relatively close, and in some areas population growth has been negligible. It hardly seems possible to many Europeans, in whose culture the idea of family planning is so thoroughly ingrained, that Asians won't automatically see the direction in which their self-interest lies.

Unfortunately, as we have already noted, it isn't so patently obvious to Asians that their interests lie in the direction of smaller families. Even if individuals were convinced of the need for limiting the number of their children, it is doubtful whether they could find or afford the means to do so.

Most Asians (always, of course, with the exception of industrial Japan) are farmers. Like farmers everywhere, they tend to be conservative. They are used to large families. They like large families. In a Western city, every additional child takes up extra space, eats extra food, needs money for clothing and an education, and, no matter how much he is loved, generally tends to be something of a liability to a family. On an Asian farm, no matter how small, each additional child appears

to be more of an asset than a liability. Each child provides a pair of hands to help with the work.

In the West, farmers' excess children have, at least for the past fifty years, left home to head for factory or office jobs in the city. This has also happened in Japan. But in the remainder of Asia there are few factories, and few job openings in offices. Village families tend to stick together through several generations. The unemployed and the landless hang around the homestead. The adults who do have land or work assume responsibility not only for their own children, but for the children of their less fortunate relatives. Togetherness is carried to a point far beyond the dreams of Madison Avenue.

Aside from this basic attitude toward children, the problem of contraception is a real poser for the mass of Asians. Contraceptive devices whose cost seems negligible to Westerners are far too expensive for an Asian with a gross cash income of fifty dollars a year. Even the simplest devices are designed for use where some elementary sanitation facilities exist. As to more sophisticated methods of birth control, they have so far proved too complex to be successfully introduced in Asia. It is for this reason that the development of "The Pill" is such an important early step.

There are no taboos on birth control in Asian religions, but there are cultural taboos. In the traditional pre-Communist Chinese culture, for instance, a man depended on his descendants to cherish his memory, to "sweep his grave," and to preserve such immortality as he could look forward to. Therefore, until the Communists started to reshape the family life of China, the Chinese were accustomed to a tradition of large families. In the Hindu culture, procreation itself plays an important part. The power of some of the Hindu gods lies partly in their reputation for sexual potency.

There is also considerable opposition to birth control in

Asian countries at a national level. For decades, Asian leaders (like Western leaders) have looked on the population growth of their countries as a sign of prosperity and future power. It is difficult for them to reverse their viewpoints. In addition, the idea of birth control has a certain taint to it because it is a Western idea. Most of the countries of Free Asia are newly loose from colonial ties. Their leaders have a built-in mistrust of the West, and a fear that the West intends to harness them once again, by economic means if not by political imperialism. The fact that Westerners advocate birth control to limit the growth of Asian populations strikes them as suspicious.

Despite all these difficulties, the population growth of Asian countries *can* be controlled. One nation, Japan, has proved that population can be stabilized.

The process of bringing the Japanese population growth under control was a long one. Commodore Perry "opened" the country to trade and commerce with the outside world in 1854. For nearly a century after that date, Japan's population grew steadily. The death rate fell quickly, and the birth rate lagged behind. Only gradually did individual Japanese decide to limit the size of their families. Most of the reasons for their change in attitude were connected with the country's industrialization and urbanization. When the government, soon after World War II, legalized abortion and began to encourage the birth control movement, the Japanese birth rate dropped precipitously. Today, although Japan's population is large and still growing, the growth is within bounds. Given prosperity for another generation, and no abrupt change in the national attitude, Japan will have solved its "population problem."

But Japan, because its people today depend on industry as well as the land for a living, is no longer directly comparable with the rest of Asia. Japan is in a class by itself.

The rest of Asia doesn't have a century to spare. Of the an-

nual increment of 50 million new citizens of the world, half are born into the poverty of Asia. If Asians want to preserve themselves and their children from untold misery in the future, they must act now.

"So?" asks the hardheaded or cynical American and European. "How does that affect me? Let them breed until they pack their continent like sardines in a can. It's their misfortune if they rot."

This philosophical outlook might be admissible, however unedifying, if the world were not in the process of a bitter and remorseless semi-war between the Communist and the non-Communist powers. In the economic form of warfare that is being waged, the population growth of Asian countries is one important element. The control of population growth could prove to be the most important strategic weapon—for both sides.

Politically, Asia, like the world, is divided in two between the Communist countries—China, North Korea, and North Vietnam—and the sixteen nations and the half-dozen remaining small colonies which make up Free Asia. But most of the non-Communist half is not firmly committed to anti-communism. Many Asian countries, in fact, are wavering. The lives of their people are so beset by poverty that any change looks tempting, even the one-way leap into the Communist camp. For the Communists, such underdeveloped countries are prime targets.

An increase in the population of these countries means a narrowing of the economic straits in which they already find themselves. The poorer they grow, the weaker their resistance.

The Kremlin seems to be well aware of the connection between population growth and economic retrogression in Asia.

Whatever Peking may be doing about population growth in China, Moscow continues to register opposition to the idea of birth control programs for Free Asian countries with a fervor equalled only by that of the Roman Catholic Church. At an ECAFE meeting in Melbourne early in 1959, the Soviet delegation was the only one to oppose the principle of a continent-wide campaign of population limitation.

For the individual, "freedom" is more a slogan than a reality in Free Asia. The conditions that might have made for strong, democratic governments have steadily been deteriorating. In country after country, crisis succeeds crisis. In some areas, riots, disorder, revolution, and chaos have become the accepted order of the day, so routine as to be hardly newsworthy. In Pakistan, Burma, and Thailand, even the trappings of democracy have been abandoned, and military dictatorships are attempting to halt the disintegration of the state.

In each of the Asian trouble spots, the immediate reasons for the continuing crisis are much the same as those which have turned Kerala—"Coconut Land"—into a Communist state. They consist of a complex welter of economic, political, psychological, and sociological factors. And, as in Kerala, if two reasons can be picked out as the prime causes of the difficulty, they are that vicious pair—the overcrowding of the land and the hopelessness of the future. There are already too many Asians. There are more appearing on the scene every hour.

Many of the Free Asian countries have been making valiant efforts to develop their economies, to make more intensive use of their land and resources, and to introduce new industries. But for every advance they achieve in production, new babies are born to use up the increase. Every additional bowlful of rice is offset by an additional hungry mouth. If production succeeds one year in forging ahead of population growth, population catches up again the next year.

Asians, like people in the Red Queen's land behind the looking-glass, must run as hard as they can merely in order to stay in the same place. During the past fifty years, while Westerners have been making steady economic progress, Asians have been standing still. Few Asians today are enjoying a higher standard of living than were their great-grandparents when the century was new. Of course, there are half again as many Asians today as there were fifty years ago, but many of them have been reduced to an even lower standard of living than that of their forefathers. Almost universally in Asia the living standard is a miserable, barely marginal existence which shows no signs of improving.

In some of the Asian countries people have almost given up trying to keep up with the endless belt of their dreary treadmill. As a result, it is carrying them steadily backwards. In Indonesia, a civil war continues at a low level, only occasionally flaring up into the headlines, but generally putting a stop to hopes of economic progress. The struggle is between the outer islands, such as Sumatra and the Celebes, with their reserves of resources, and Java, where the central government is based. It is more than coincidence that Java is one of the most crowded spots on earth, and that communism plays an important if half-hidden role in the government.

In Ceylon, the increasingly frequent strikes and riots have ostensibly been touched off by issues of race, religion, and language. Barely behind the scenes, however, lies the growing strength of the Communists, using Moscow money to keep the pot boiling. It is more than coincidence that Ceylon's population has increased by a third in the past ten years, while its economy has been stumbling along at the same old pace. Ceylon's rate of population growth today is one of the highest in the world.

In most other Free Asian countries, too, these same factors

are at work. In some, they are hidden by the existence of a reserve of surplus land and resources, as in Thailand and Burma. In others, as in the Philippines and Formosa, population growth and economic development are engaged in their crucial race, but strong government action has so far kept the Communist party from playing an overt part.

In fact, in only one country of Free Asia, Japan, is economic development clearly and steadily outpacing population growth. Not only is the average Japanese living at a higher standard than ever before, but he has reason to hope that his lot will be still better in the future. It is more than coincidence that Japan is the strongest bastion of democracy in Asia, certainly economically and probably also politically. But, as we have seen, because of its long established industrialization, Japan is not a model which the other Asian countries can imitate, no matter how much they may envy its prosperity and economic stability.

Instead, the eyes of most Asians today are turned on Red China in its drive for economic development. We in the West are accustomed to thinking of communism as having a threatening aspect. We forget that to many Asians it looks alluring. To Asians far more than to Westerners, the Chinese "great leap forward" sounds impressive in its goals and its achievements. If the dictators in Peking can succeed in relieving the Chinese of their overbearing poverty, millions of Asians will hail the victory as a triumph for the Communist way of life. Freedom, as it exists for most Asians, will seem a small and unimportant asset, well worth bartering for an extra bowl of rice.

The hope of the Free World lies in the leaders of the uncommitted nation, India. India's leaders, too, are fighting to develop their country's economy and to relieve the desperate poverty of their people. But they are proceeding in a different fashion

from the Chinese leaders. They are attempting to use democratic means to develop their country's economy, and they are battling at the same time to maintain and strengthen the freedom of their people. Because their methods are those of persuasion rather than force, their successes are slower and less flashy than those of the Communists.

In their First Five-Year Plan, between 1951 and 1956, India's leaders did score a notable success. The country's economic development pulled ahead of the steady growth of population. Today, for a variety of reasons, the Second Five-Year Plan is falling behind its schedule. Progress is tortuously slow. It is largely for this reason that other Asians and the world are paying more attention to China's boasts of success than to what happens in India.

Because India is so aggressively determined to remain uncommitted in the "cold war," its leaders have a singular knack for saying and doing things which irritate Americans and Europeans. Many Westerners even go so far as to think of India as an enemy: "If it's not with us, it must be against us." But the truth is that in the success of neutralist India's economic development lies the main hope of the Free World that the freedom of Asia will be maintained.

In both India and China, population growth is running true to form for Asia. Death rates have gone down, and are likely to drop still further; birth rates remain high. In both countries the increase in population is a drag on the progress of economic development—a drag that may turn progress into retrogression.

If it should happen that India fails to cope with the population problem and China succeeds, the entire Free World will suffer a massive defeat. Yet that is a prospect now facing us.

CHAPTER THREE

India Thinks; China Acts

Ask any Indian intellectual, from Pandit Nehru to the most recent university graduate, about his country's population growth, and you're likely to get a brilliant and lengthy discourse. Educated Indians are aware that the population of their country is growing at an alarming rate. They realize the danger this population growth poses to India's economic development. They talk intelligently of the Malthusian doctrine—that a population tends to increase faster than its food supply; of rates of capital growth; of ancient Ayur-Vedaic contraceptives; and of "The Pill." There is little disagreement in India on the theory of population growth, or on the principle that something should be done about it.

India's leaders know what they are up against. They realize that if their country's birth rate remains at its present high level, and the death rate continues to decline, the population will almost double by 1986. They know that even if they start immediately on a determined campaign to reduce the birth rate, they will still for many years face the problem of a growing

population. They know that the longer they postpone such a campaign, the more difficult the solution of the problem will become. In short, they are aware that their program for economic development is in danger of being stifled by sheer numbers of people.

They have studied the trends well enough to be aware that the continuation of a high birth rate works against them in additional ways. The steadily changing ratio of births to deaths keeps the proportion of children under fifteen in the country at an unreasonably high level. A study has shown that if the present level of fertility continues until 1986, 42 per cent of the population of India will be under fifteen. This is twice as high as the present child-adult ratio in Australia, France and the United Kingdom. This will mean a still lower proportion of hands to aid in production, compared with mouths to eat the limited supply of food.

The leaders' awareness of the problems posed by population growth is reflected in the official attitude of the government of India. It is one of the few governments in the world which has officially recognized the need to call a halt to the increase in the number of its citizens. Its attitude is liberal, constructive, and, in the words of Aldous Huxley, "less superstitious" than that of most Western governments.

The theory of the Indian government was set down in clear and incisive language in the official statement of the Second Five-Year Plan:

Given the over-all shortage of land and of capital equipment relative to population as in India the conclusion is inescapable that an effective curb on population growth is an important condition for rapid improvement in incomes and in levels of living. This is particularly so, if one bears in mind the fact that the effect of improvements in public health and in the control of diseases and epidemics is to bring about an almost immediate increase in survival rates.

While there may be differences as to the likely rates of population growth over the next 20 to 25 years, indications clearly are that even with the utmost effort which can be made—has to be made—at this stage to bring down birth rates, population pressure is likely to become more acute in the coming years. This highlights the need for a large and active programme aimed at restraining population growth, even as it reinforces the case for a massive development effort.

The brave words of India's recognition of its population problem have been widely publicized in the West. The act of recognition has been regarded as a hopeful sign for the future. Yet for all the theorizing, all the thought devoted to the problem, and all the official statements of policy, India is doing practically nothing to meet the situation.

In the First Five-Year Plan, which was launched in 1951, the government allocated the tiny sum of \$1.3 million for research and action on family planning. To meet a problem which it conceded was of the most imperative urgency, it appropriated just one-fortieth of 1 per cent of the total five-year national capital budget.

And even then the administrators spent only three-quarters of the allotted sum!

In 1956 in the Second Five-Year Plan the government stepped up the allotment for family planning to \$10 million. This made it the equivalent of one-tenth of 1 per cent of the total planned expenditure.

The sums allotted to family planning in the two Plans have amounted to less than 2 per cent of the total provided for medical and public health services. Certainly there is a real need for improving the health standards of a country in which the average life expectancy at birth is only thirty-eight years. But is that need fifty times greater than the need to protect Indians from the consequences of their own multiplication?

Ironically, the money allocated for health services complicates still further the population problem. In one year alone, for instance, India appropriated \$14 million for malaria control. Just this one phase of one health program—a fraction of the total health plan—is bound to have the effect of reducing the death rate. But the minuscule amounts spent on family planning—three cents for each Indian over the whole ten-year period—will hardly make a dent in the birth rate. So India intensifies its own population squeeze.

“Every year that no effective attack is mounted against high fertility moves India one year nearer the demographic point of no return, when the rising tide of people swamps economic improvement,” Dr. Robert C. Cook, director of the Population Reference Bureau, has written.

In 1951, just four years after India acquired its freedom, the government extended a long-standing British tradition by taking the regular ten-year census. The count revealed a population total of 357 million, an increase of 44 million over the population of the same area in 1941, and of 122 million since the census of 1901. The census figures also indicated a birth rate of about 40 per thousand, and a death rate of around 27, with a net annual rate of population increase of 1.3 per cent. (A comprehensive study made in 1956 by American population experts put the birth rate at 43 per thousand and the death rate at 26—an annual increase of 1.7 per cent.)

The Registrar General of India, R. A. Gopalaswami, in his official census report, warned his countrymen that they could not afford the luxury of an additional population each year of four million more little Indians. He urged that if the country was to avoid a national disaster, the government should embark immediately on a campaign to promote family planning. He believed that if the campaign got under way promptly, by 1969 every couple in India could be persuaded to limit the size of its

family to three children. Instead of such a campaign there has been almost complete inaction. Indians are no more prepared today to limit the size of their families than they were when Gopalaswami issued his gloomy report.

Instead, if anything, the rate of increase has accelerated. According to the U.N. estimates, when India's census takers recount the population in 1961, they will probably find more than 420 million Indians, an increase of 65 million in ten years.

Prime Minister Nehru indicated his awareness of India's lack of accomplishment in the field of population control in February, 1959, when he addressed the opening session of an international conference on planned parenthood, in New Delhi. Although the Indian government had adopted family planning as an official policy, he admitted rather sadly, the results of the previous eight years had not been encouraging.

He remarked that the success of birth control programs depends almost entirely on the extent that literacy and living conditions improve. He neglected to suggest how literacy and living conditions can improve in any country where population gains are eating up any improvements made in the national income. He left the impression that while he is well aware some action should be taken, he has no idea just what it should be. He has been paralyzed into inactivity. Pandit Nehru and the rest of India's leaders sit like so many King Canutes at the water's edge, making sage comments about the incoming tide. In their case, the tide is likely to drown them.

Across the Himalayas, "the roof of the world," in Communist China it's not so easy to find intellectuals to comment on population growth. When Western visitors brought the subject up recently, the answers have had a certain "who's afraid of the big bad wolf" quality.

"We're not worried about Malthus," a Peking economics professor told American correspondent John Strohm. And an engineer in a fertilizer factory boasted: "We can feed 15 billion people if we have to."

Malthus and Karl Marx clash head on in China. Where Malthus looked on population growth as a disaster, Marx insisted that increasing a country's population was tantamount to increasing its supply of capital. In the Marxist view there is no such thing as overpopulation. Poverty, according to the traditional Communist lines, is caused not by an excess of people in relation to resources, but by weaknesses and failures inherent in the capitalist system.

The Soviet Union still religiously maintains the Marxist line, just as it was expounded by Lenin. At an ECAFE conference on population early in 1959, for instance, the Soviet delegation was the only delegation present to oppose the principle of limitation of Asian population growth. "The key to progress," said the spokesman, "does not lie in a limitation of population through artificial reduction of the birth rate, but in the speedy defeat of the economic backwardness of these countries." There is, however, a serious question as to how thoroughly the top leaders of Red China still accept the validity of this orthodox Marxist thesis.

The Bamboo Curtain has turned the vast area of China into a land of inscrutable mystery beyond the wildest imaginings of a Sax Rohmer. It is almost impossible for an outsider to pierce the veil of censorship and controlled lies and to figure out just what is happening in any phase of Chinese life. Among the most difficult areas in which to separate fact from propaganda is that of population growth. Outside China—and maybe inside China—there is a wide difference of opinion as to what the official population policy is.

A study of the controlled Chinese press indicates that there

is a split in the ranks. Among some of the top Chinese Communist leaders there is an apparent unwillingness to jettison the Marxist-Leninist theory that "labor creates wealth." These authorities can make life very difficult for any minor official who even hints that population growth is not, in itself, beneficial to China.

On the other side, but apparently fewer in number, are some of the ranking powers in the hierarchy, known to be orthodox, who believe Marx must have erred on population growth—that it isn't always a Good Thing.

Among the leaders who have in the past expressed this heretical point of view is Party Chairman Mao Tse-tung himself. Whether he, in his own mind, has since reverted to pure Marxist population theory remains one of the imponderables.

Paradoxically, both camps end up by adopting, for different stated reasons, the same conclusion: China needs a campaign to control births. And, as far as can be told from outside looking in, China is proceeding with the most massive program the world has ever seen to alter a national birth pattern.

The original stimulus to the controversy over population policy in China was the census of 1953—the first census taken throughout China in some 1,800 years. Before 1953, guessing at China's population was one of the great international sports of demographers, but no one had facts against which to check the estimates. The census came up with a total count of 583 million people, 200 million greater than some widely accepted guesses, more than 100 million greater than the previous estimate of the United Nations, and certainly far greater than the Red leaders themselves must have figured.

The census takers also reported that the Chinese birth rate was 37 per thousand, and the death rate 17 per thousand.

This would mean an annual population growth of 2 per cent, or, at that time, 12 million persons a year. Most demographers had estimated that the deaths in China just about canceled out the births, and that the population level, therefore, remained fairly constant. Now, studying the age structure revealed by the census and the large proportion of infants, they wonder if the birth rate isn't really higher than the reported 37 per thousand, and the population growth each year more on the order of 15 million.

At any rate, it must have come as a surprise to the Red leaders in Peking, as well as the demographers, to find by what a wide margin their country was the largest in the world, and to learn that a population equivalent to that of Czechoslovakia or Pennsylvania was being added each year to the number of their subjects.

The first reaction of the Communist theoreticians to the census figures was one of unalloyed joy. "600 Million People Are China's Great Force for Socialist Construction," trumpeted the headline in the Communist party newspaper, *People's Daily*, on the day the figure was announced. ". . . the most precious of all the categories of capital," echoed an official of the Census Bureau who was quoted in the same issue.

Second thoughts soon began to creep into men's minds. "It is a good thing to have a large population, but there should be a limit set," commented a deputy at a "people's congress" late in 1954. For two years a restrained sort of debate went on in the newspapers, with no one actually admitting that population growth might be harming the nation's future, but with more and more opinions expressed that something should be done about it, anyway. By 1956 there was enough agitation to prompt the government to authorize a nation-wide campaign of instruction in contraceptive techniques.

The new attitude grew progressively stronger through the

spring of 1957. In March of that year the Minister of Health, a lady named Li Teh-chuan, made a strong public plea for birth control and planned families, to improve the welfare and health of the people. Without planned childbirth, she added, "China can not free itself from poverty and become prosperous, rich and strong."

The *People's Daily* promptly came out with a supporting editorial: "The Party and Government support the demand of the masses for contraceptive techniques." It urged the promotion of all forms of contraception, and a change in the custom of early marriage. A law was passed setting the minimum marriage ages at sixteen for girls, eighteen for boys.

In May, 1957, Mao Tse-tung himself joined the chorus, in one of his rare, public, policy-making speeches. The world was made extremely conscious of this speech, because it was in the course of it that Mao made his famous statement: "Let a hundred flowers bloom, let a hundred schools of thought contend." In fact, so much attention was paid to this radical shift in the Party line that few observers even noticed another Mao statement in the same speech which gave a hint of a possible shift in Communist policy which would be even more revolutionary: a new official attitude toward the population explosion.

The "hundred flowers" bloomed briefly, as the world watched in amazement. Then the Party line zagged where it had zigged, and the heads of the flowers were lopped off. For all its long-term effect on Chinese policy, the famous statement might as well never have been made.

It is more difficult to assess the results of the less frequently quoted words from the same speech—the obscure paragraphs on population policy. Although Mao has not repeated them, and although they did not become a part of the Party line, if Mao believed his own words, they could prove in the long run

to have a fundamental and permanent influence on the present and on the future of China, of Asia, and of the world.

Mao, as reported on an inside page of the *New York Times*, said that the number of births in China, 30 million a year, was "a sign of great progress made in medical service and the general rise in living standards, especially in the countryside, and of the faith people have in the future.

"But this figure must also be of great concern to us all," he added.

"I will quote two other figures. The increase in grain harvest for the last two years has been 10 million tons a year. This is barely sufficient to cover the needs of our growing population.

"The second figure concerns the problem of education. It is estimated that at present 40 per cent of our youth have not been placed in primary schools.

"Steps must therefore be taken to keep our population for a long time at a stable level, say, of 600 million. A wide campaign of explanation and proper help must be undertaken to achieve this aim."

A month later the trend toward overt recognition of the dangers of population growth reached the high-water mark. Apparently emboldened by what Mao had said, Ma Yin-ch'u, a distinguished, sixty-seven-year-old economist who was at that time president of Peking University, delivered a thoughtful talk entitled, "A New Theory of Population." He was careful to take a full quota of pot shots at Malthus, and to endorse the views of Marx and Lenin. But his essential message was that population growth was holding back the progress of China's economy by impeding the national accumulation of capital.

"If we let the population take its natural course uncontrolled, it will affect the progress of industrialization," he said. "We must impose strict control over the size of our population."

His talk brought a quick reaction, which must have had official sponsorship. The newspapers were filled with accusations that he was perverting the Marxist line, and insulting all 600 million of the great Chinese people. He was last reported, fifteen months later, begging the government to be allowed to do farm work in order to escape further criticism and humiliation, much of it from his own students.

No one in China since has dared to suggest that there might be too many Chinese.

The curious aspect of the new breed of Marxist population theorists in China is that, while loudly hailing the benefits of population growth, they continue to endorse birth control.

This doesn't make sense. The latest spokesmen on population policy rail at "bourgeois neo-Malthusianism," and then calmly jump a dialectical hurdle to a position of all-out support for family planning. The grounds they use vary—maternal health, population imbalances caused by the vicious capitalist control of China when it was ruled by the Kuomintang clique, the need for female production workers, or others. The illogic of an argument never seems to bother a good Communist theoretician.

"A teeming population is a good thing because people constitute the most precious wealth in the world," stated a Kwangsi newspaper late in 1958. "However, many women have borne children at brief intervals; this has greatly hindered their production, work, and studies. Hence the broad masses have a universal demand for birth control. Under the present conditions of big forward leaps in particular, women cadre members, workers and peasants have a more pressing desire for planned childbirth . . . to speed up socialist construction."

The *Peking Review*, an English-language weekly, stated the argument this way in July, 1958:

But even today, some people still regard China's huge numbers as a heavy burden and liability. They are parroting the old ideas of Malthusianism. . . . Construction and life in New China have, in fact, given the lie to all Malthusians, old and new. . . . Agriculture needs even more manpower now and in the coming years. . . . Industry may take 800,000 new workers and employees each year. . . . It is the people who create the social wealth. But this does not mean that China intends to let her population grow in a blind, uncontrolled way. On the contrary, the socialist system, which has changed the content and nature of the population question, also makes it possible gradually to plan population increase. China's aim is to adjust her population growth in such a way as to benefit the whole socialist planned economy and the welfare of the people.

Even the critics of Ma Yin-ch'u and his "New Theory of Population" ended their diatribes with statements of belief in the necessity of a birth control program.

Despite the ebb and flow of the theoretical argument, there is evidence that China has been developing a very practical birth control campaign. Whatever the official theory at the top is on population growth, it is apparent that government officials on down the line are doing something about cutting down the birth rate. In fact, policy or no policy, the Communists at the village level seem to have been taking steps along the lines which are best designed to have an effect on individual attitudes toward birth control and, therefore, on the national rate of population growth.

The word is being given to the people on how they can improve their lives by limiting the size of their families. The mothers will be healthier. The babies will be healthier. The children will have a better chance in the world. And, perhaps

most persuasive of all in the minds of a hungry people, the mothers, by avoiding pregnancy and maintaining their ability to work, will preserve their earning power.

No appeal is made, one way or another, to the motive of aiding the national welfare. This may be because the leaders in Peking can't make up their minds just where the national welfare lies in terms of population, or it may be by design. The net effect is the same—to increase the chances of success of the birth control campaign. As dictators have learned in the past, few families let patriotic appeals influence their decisions about having or not having babies.

In widely scattered Chinese villages, visitors report seeing posters graphically demonstrating methods of contraception. Slides and strip films are shown, explaining the facts of life in vivid terms. Posters on the walls of village buildings use the "comic strip" technique, and leave little to the imagination. A lady spokesman from the Ministry of Health told the British writer Dennis Bloodworth that 24 million male contraceptive devices—presumably she meant condoms—had been sold in China in 1957.

Abortion has been condoned, as it was by the Soviet Union soon after the Russian Revolution. Legal limitations on the sterilization of men have also been lessened. The Chinese government, however, has scrupulously avoided giving encouragement to women to induce abortions, or to men to volunteer for sterilization. Few specific mentions of such operations are made in official newspaper accounts, although the terms "abortion" and "sterilization" are both included within the Chinese meaning of "birth control."

Newspapers all over China have spurred on the birth control campaign, and, more lately, have been reporting successes. These are a few typical headlines:

"Nanking Gets One Child in Every Ten Minutes; Appropriate Contraception Should Be Prompt" (March, 1957)

"More Contraceptives on Sale" (July, 1957)

"830,000 Persons Receive Contraceptive Education in Peking" (August, 1957)

"People Take Serious View of Contraception" (October, 1957)

"Birth Control Propaganda Spreads Far and Wide in Hopei Province" (April, 1958)

"Further Develop Birth Control Work in Rural Areas" (May, 1958)

"Actively Promote Late Marriage and Contraception" (September, 1958)

In March, 1958, a paper in Wuhan reported that cadre members in that provincial city were showing an example of family planning to the citizens by competing among themselves in birth control activities. "Of 70 cadre members, nine are unmarried, ten are aged, two are sterile, and three are already operated on. The rest will limit impregnation to three to five years. Twenty-three have decided to have no more children, including eight who will have [operations], while the remaining 23 will use condoms."

At the same time, a search for new contraceptives has been going on. The Ministry of Health has reported it is testing ancient, sacred herb formulas, said to have been used successfully centuries ago to prevent conception. One traditional formula, advanced in all seriousness by a deputy of the National People's Congress, consisted of this recipe:

Fresh tadpoles coming out in the spring should be washed clean in cold well water, and swallowed whole three or four days after menstruation. If a woman swallows fourteen live tadpoles on the first day and ten more on the following

day, she will not conceive for five years. If contraception is still required after that, she can repeat the formula twice, and be forever sterile . . .

"This formula," the deputy added, "is good in that it is effective, safe, and not expensive. The defect is that it can be used only in the spring."

British correspondent Jack Gee wrote early in 1959 that an experiment with tadpoles had been tried in Hangchow with forty-two women. Two of the women were pregnant within four weeks and eighteen others within four months. "The *People's Daily* reported," Gee went on, "that the twenty-two other women had reverted to 'traditional forms' of birth control. This probably meant abortion: Peking hospital records show that one woman patient out of every three is treated for abortion's aftereffects."

The tadpoles were not the only fantastic recipe. The Shanghai Tobacco Industrial Company gave its workers medicinal herbs as a protection against "impregnation." One contraceptive preparation was offered to villagers under the brand name of "Healthy Pleasure Honey."

The birth control campaign seems to be still continuing in China. There has been less publicity about it since the hullabaloo over the formation of the communes began in the summer of 1958. Through early 1959, in fact, discussions of the population question were notably absent from newspapers and magazines. But that does not mean the campaign has been called off. In fact, it seems highly probable that the communes will give a new twist to the campaign. They may even have been designed partly for their effect on China's population problem—which the powers in Peking certainly know very well to exist, whatever their official propaganda line.

The process of voluntary, individual contraception may have

been too slow in its effects to suit the ambitions of China's rulers. Even 24 million condoms can't make much of an impact on the birth rate of a nation of 650 million.

This is in the realm of conjecture, but Mao Tse-tung may be instituting something frighteningly new in the history of the world—a system of forced, communal contraception.

The communes, of course, are the highly disciplined working units in which, the Communists claim, nine out of ten Chinese are enrolled. Every phase of the life of each man and each woman is highly organized. The paramilitary structure of the commune is made to order for the ultimate intrusion by the government into the personal affairs of its citizens—control of their sex lives.

The details of everyday life in the commune can only be gleaned from the propaganda accounts in the newspapers, from reports by a few outside visitors, and from the stories of a small number of refugees who have escaped to the outside world. Some phases of communal life have been made clear: the breakup of the family, the nurseries for the children, the communal mess halls, the long work hours from before dawn to after sundown, the shortage of social activity, and the almost complete lack of privacy. In addition, scattered reports have indicated that barracks were being built in model communes, the men to live in one dormitory, the women in another.

Refugees from such communes have reported that their relations with their wives have been systematically controlled. Once about every two weeks, they say, a couple is allowed twenty minutes in private together.

Could any system be more brilliantly devised to lower the birth rate of a nation?

The Shakers, a small religious sect in nineteenth-century America, believed that bearing children was sinful. They, too, lived communal lives, the men in one barracks, the women in

another. They withheld from sex relations—voluntarily. Eventually they reduced their birth rate to zero per thousand, and, in the course of time, the sect died out and disappeared.

The new Chinese communes could turn out to be twentieth-century Shaker villages—with Big Brother watching. Except, of course, that the Communist leaders have no intention of letting their nation die out or disappear. They certainly wouldn't reduce the birth rate of their people beyond what the planners consider to be the optimum point.

Should the control of sex relations prove not to be feasible, the Communists could still establish through the communes an even more ruthless form of birth control. Communists have never been noted for their respect for human lives. Some expert observers believe that Peking might well institute a rigorous check on pregnancies in the communes, and line up women for abortions as though the operation were a new form of vaccination.

Because of the contradictory nature of official Chinese statements on population policy, some observers in the West have concluded that China has abandoned any thought of birth control and is working to increase its population as fast as possible. This seems unlikely.

In August, 1958, for instance, Paul Reynaud, former premier of France, speaking before the high-level seminar of World Brotherhood in Bern, commented that he was amazed that "public opinion was not more moved" by Communist China's switch from approval of birth control to opposition.

"China has been exciting Russia against Poland, Hungary, and Yugoslavia," he went on, as quoted later by Arthur Krock in the *New York Times*. "Why is Russia so obedient? Is it because Khrushchev is wondering about the time when China

with her billion inhabitants will announce: 'My vital space is Siberia'?

"... And when Khrushchev, on the subject of a united Germany, asked me why we want a united Europe, my answer was: 'Because in twenty-five years you will have one billion Chinese.'

"He stopped a few minutes, then spoke of another problem, but I am sure he understood perfectly what I meant."

M. Reynaud was working on two assumptions: that China had switched to opposition to birth control, and that an increase in population would strengthen Chinese pressure on the empty spaces of Siberia.

As to the first assumption, two months after M. Reynaud made his statement, John Strohm, the American correspondent, emerged from China and reported on the "great leap backward" in babies which he had found. "Every doctor I met in farm and factory told me frankly that he gave birth control advice to the women," he wrote.

As to the second assumption, in this industrial era the size of a country's population cannot be equated with its military power. A billion Chinese won't put any effective pressure on the open spaces of Siberia unless they have a military machine to back up the human bodies. The real pressure of a country's population in the twentieth century is felt internally on its own economy rather than externally on its foreign affairs.

Mao Tse-tung is said to have commented that China could lose half its population in an atomic war and still have 300 million people. This does not mean that China could win an atomic war. Without nuclear weapons itself, and facing an enemy armed with nuclear weapons, it might suffer losses far greater than half its population. In other words, without Russia's support, China would be in somewhat the same position to

fight as Primo Carnera used to be: well able to take it, but not capable of dishing it out.

Even allowing for the exaggeration in the published production figures, it seems clear that China has, under the Communist regime, made notable—even amazing—increases in farm output and in industry. But this progress has been made despite the country's population growth, not because of it.

China may even succeed in industrializing its economy, in relieving its dependence on Russia, and in acquiring its own sources of nuclear weapons. Until such a time, its rapid population growth threatens neither Siberia nor the open spaces of the Free World. In fact, it is this very population growth that may upset China's plans for economic development and slow down its industrialization. In 1980, a China of 700 million, thoroughly industrialized, would pose more of a threat to all its neighbors than a China of one billion, suffering from the economic backwardness that this population growth implies.

CHAPTER FOUR

How Asia Grew

Asia is a very old land, possibly the cradle of mankind. More than 100,000 years ago Java Man and Peking Man were out of the trees that had been their ancestral homes, and roaming around the river valleys. There certainly weren't very many of them, and they faced a hostile world. Not until the last glacier withdrew, beginning only about 10,000 years ago, did mankind really begin to prosper—in what is now the Middle East, in Asia, and eventually in Europe.

Population pressure must be nearly as old as mankind. Imagine a small tribe of wanderers emerging from a desert into a lush valley—perhaps the Ganges or the Yellow River. There they settle down beside the flowing stream. They plant a few seeds and domesticate a few animals. To their joy—and surprise—the land prospers as no land they have ever seen before. Their children grow up strong and healthy, and they in turn produce large families of sturdy youngsters. Famine is unknown. Each young generation brings new lands under cultivation until finally, after a few centuries, the descendants of the

small tribe find they have extended to the very edge of the valley. The land must be divided into smaller and smaller parcels. Jealousy and quarrels spring up over the division. The strong seize more land; the weak go hungry. It is in such days as these that men look back on the life of the pioneers of the valley as having been a paradise on earth, a Garden of Eden. Finally comes the expulsion. Hunger—the pressure of population—drives another small tribe out of the valley to find a living on the dry plains, or to wander in search of a new and greener home.

Such a history must have been repeated many times in the early years of man's life on earth. It was in the fertile valleys of the Middle East and of Asia that civilization first developed. Men learned to divide up their labors. Some remained farmers; some became traders; some assumed positions of authority as priests, governors, and judges. At the height of a valley's prosperity men developed new crafts, devised new arts, invented languages, and amused their fellows with music and poetry. Then as a valley grew overcrowded, the warriors became more important. Sometimes wars and plagues would sweep across a valley, cutting the size of a population. Often the result of such a catastrophe was undoubtedly the easing of the pressure on the land and the establishment of a new Golden Age.

Among the greatest of the remains of those ancient times are the ruins of a city which must have been the capital of just such a culture—Mohenjo-daro, in the Indus River valley of West Pakistan. It dates back more than three thousand years before the Christian era. Its buildings, preserved in the dry air, have revealed to archaeologists many of the secrets of an early valley civilization. In the city in its prime, and in the countryside around it, lived a cultured and prosperous people. Mohenjo-daro's citizens lived in commodious houses equipped with baths, and the city boasted a well-designed drainage system.

Its streets were laid out according to a systematic plan. Its merchants apparently were wealthy, and they formed the dominant class. They carried on trade with the contemporary valley civilizations of Persia, Mesopotamia, and Egypt. A surprising wealth of ornaments has been found in gold, silver, and precious stones. Every sign points to the existence on the site of a populous civilization.

How Mohenjo-daro came to die no one yet knows. Perhaps a flood of the Indus washed away the farm lands on which the people depended for their food supply. More probably the climate of the valley changed, and the land progressively dried up and lost its fertility. Whatever the cause, the civilization disappeared completely. What had been a well-populated land became a barren desert. The very existence of the city and its people was forgotten and unknown for nearly five thousand years.

Mohenjo-daro is not an isolated example in the long history of Asia. Other peoples have prospered, multiplied, established civilizations, risen to power, and then faded out of existence. Such was the civilization of the Khmers, in what is now Cambodia. Their capital, Angkor the Magnificent, was said by Marco Polo to have one million inhabitants. The European traveler passed through Angkor in 1291, and noted the wealth, the pomp, and the glory of the Khmer emperors. A century later something went wrong. The empire collapsed. How the disaster happened no one can be sure. Some authorities believe the silting up of the Mekong River ruined the agriculture on which the economy of the country was based. Others suspect that attacks by the fierce Thai tribes, ancestors of the Siamese, just pushing down from the north into Southeast Asia, finished off the empire. So suddenly did the emperors, the court, and the entire population desert the city of Angkor that some buildings were left uncompleted. The jungle grew back over

the whole expanse. Europeans, when they arrived in Asia in force, thought Angkor must have been another of the imaginary cities of the ancients. Not until 1867 did a French engineer, exploring the jungles of Cambodia, stumble across the ruins of the mighty Hindu temple, Angkor Wat.

Still another civilization which rose and fell was that of the Shrivajaya Empire, whose capital was the city of Palembang, on the island of Sumatra. In the ninth century Sumatra was prosperous, and it must have been densely populated. "When the cocks of this country begin to sing at dawn as they do in Araby," reported a visiting Arab merchant, "they answer one another over a stretch of countryside reaching 400 miles or more, because the villages are contiguous one to another, and follow each other without interruption." Yet who today remembers the very existence of the Shrivajaya Empire? The countryside around Palembang is uninhabited swampland. Palembang itself reveals no traces of a glamorous past; its main reason for existence is the presence of two huge oil refineries.

But despite these examples of whole cities and nations that disappeared, for the most part the fertile valleys of Asia proved to be more lasting homes for mankind. Slowly through the centuries the population of Asia grew. At about the same time that the Christian era was beginning around the Mediterranean, Asians' growing mastery over their environment leveled off on a plateau. The land, even under optimum conditions of peace and prosperity, could support only a certain number of people with a given command over the techniques of agriculture. The slow growth in numbers came to a halt, and the population of each part of Asia began to follow a curving pattern—steep drops in response to wars, droughts, floods, plagues, changes in climate, and a dozen other forms of calamity, each drop followed in turn by a gradual climb back to the point of balance.

In China, for instance, historians believe that the fluctuations of the population were extreme. At the beginning of each new dynasty there appears to have been a period of peace and order, cultural development, and population growth. As time went on, the growth in the number of mouths to be fed exceeded the capacity of the land. Hunger bred disorder, which led to civil war, famine, and pestilence. Only when, after a "time of trouble," a new dynasty took over the control of the empire, did the cycle of growth and decline start over again.

The pattern in ancient India was different only in degree—recessions followed by advances, but somewhat less steep than those in China. The population may have hit a high point in the peaceful reign of the Emperor Ashoka, at the beginning of the second century B.C. When the brilliant young English general, Robert Clive, fought and won the battle of Plassy in 1757, there very likely were fewer people living in India than there had been two thousand years earlier when another brilliant young general, Alexander the Great, descended on the land from across the Khyber Pass.

In its population fluctuations over the centuries, Asia didn't differ from other settled parts of the ancient and medieval world. The countries around the Mediterranean probably grew steadily until the breakup of the Roman Empire. From that time on, their population levels behaved erratically. Greece declined in numbers; Italy rose, fell, and rose again; Egypt remained densely settled through the Arab era, but under Turkish rule its population declined far below its ancient level. Only in the "frontier" territories—northern and western Europe and Russia—was there a steady population growth. Even in those areas, where forest lands were being opened up to civilization,

there were occasional catastrophes, such as the Black Death, which set back the population expansion.

The question of whether or not Asia was already overcrowded when the first Europeans arrived will probably never be decided. Asians, and particularly Indians, like to paint a picture of their homeland flowing with milk and honey until the imperialists arrived to destroy the utopia. Early European visitors both in India and in China, however, were impressed by the density of settlement compared with what they were used to at home. The best modern estimate of the population of India in 1600 is about 125 million. Europe at that time (including Russia) had 100 million people spread over a larger area. It seems evident that India was the more densely populated of the two regions. But in the same era many parts of Southeast Asia were sparsely populated. People in countless tropical villages from Burma to the Philippines had all the food they needed—fish in the water, rice in the paddy, and coconuts and bananas on the trees.

In general, Asia was probably somewhat more crowded than Europe, and its people almost certainly lived on a lower scale, even 350 years ago. But the difference was not, as it is today, all out of proportion. The essential reasons why there are too many Asians today lie not in ancient times but in the centuries of European imperialism.

Two decisive events altered the population pattern of the world, not only in the East but in the West as well. The first was Columbus' voyage, which opened up to Europeans an empty new world to be settled. The second, six years after the first, was the voyage of Vasco da Gama around the Cape of Good Hope. Da Gama initiated direct contact between East and West at a time when the people of the West were bursting with a vigor and energy such as the world has seldom seen. The impact on demography of Columbus' voyage was soon felt, and

from about 1600 the number of people on earth who were Europeans or of European ancestry began to rise at an increasingly rapid rate. The impact on population history of Da Gama's voyage wasn't really felt for another two centuries. In the long run, however, it has proved to be equally as significant demographically.

The first Europeans to arrive in the East were traders. They were not looking for colonies, but for the "riches of the Indies," and particularly for spices with which to disguise the taste of the poorly preserved meat served on European tables. Their trading goods consisted chiefly, for many years, of gold and silver which had been brought to Europe from the Americas. They didn't try to conquer countries, as the Spaniards overran Mexico and Peru. Except for the hardy missionaries who followed in the tradition of the great St. Francis Xavier in India, in Japan, and in China, few Europeans ever ventured inland from the seacoast ports at which the Western powers had established trading stations.

Like Cortez and Pizarro, the European adventurers in Asia had to do battle, but they fought not so much for territory as for the right to trade. Until their arrival, Arab merchants had held a monopoly on the spice trade. In 1610 the Portuguese Admiral Affonso de Albuquerque, at the head of a flotilla he had led around Africa, smashed an Arab fleet in the Indian Ocean and established a Portuguese hegemony over the trading rights.

For nearly a century little Portugal rivaled Spain as the richest kingdom in Europe. Its trading stations extended from India to Japan. Each year its fleets brought back from Asian waters the spices and silks for which all Europe was eager. But the brief period of vigor of the Portuguese died away. Toward the end of the sixteenth century Dutch ships began to appear in Asian waters, and the Portuguese were too weak to

drive them off. One by one, the Dutch seized the rich Portuguese galleons, picked off the Portuguese trading stations, and established themselves as the principal trading nation. For the last half of the seventeenth century and the first quarter of the eighteenth, the Dutch East India Company was the dominant maritime force in Asia. Eventually the Dutch, in turn, were overthrown in most of Asia by the British and the French.

During all these years the effect on the Asians of the arrival of the Europeans was slight. Life in Asia went on as it had for centuries. Only a tiny percentage of all Asians ever came in contact with Europeans or with their influence. Asian kings and emperors continued to rule. The population of Asia continued to wax and wane.

The change began to come when the British and the French, in their effort to drive each other out of their Asian trading stations, began to play politics in India. By the eighteenth century, the ruling Mogul dynasty had decayed. India was in a state of anarchy. Dozens of princes, large and small, fought among each other for land and power. The French and the British began to take sides, first hoping for small mercantile gains, finally playing for the stake of an empire.

There were neither enough Frenchmen nor enough Englishmen in India to endanger by themselves the smallest of principalities. But the Europeans, hardened by centuries of fighting on their own continent, had an asset that was valuable to all the Indian rulers—a knowledge of warfare. The European artillery, especially, was important. The Chinese had known the secret of gunpowder since ancient times, but it was the Europeans who applied it to the science of warfare. There was no reason why Asians should not have learned the art from the foreigners, but for the most part they didn't choose to do so. Even the master of the Mogul emperors' artillery was traditionally a Europeanized Turk.

The British and the French East India Companies secured valuable trading privileges by lending their European officers and gunners to Indian princes for little dynastic wars. When the Seven Years' War began in Europe in 1749, the British and the French extended their battles against each other to their dominions, and especially to North America and India. Clive, using Indian troops to fight his battles, and skillfully buying off the Indian princes who were allies of his enemy, drove the French out of the subcontinent. His successors, using much the same tactics against Indian rulers, conquered practically all of India during the next half-century, at almost no expense to Great Britain. In the same era, another enterprising young Englishman, Stamford Raffles, was establishing the strategic naval base at Singapore, at the southern tip of the Malay Peninsula. Singapore gave the British Navy control over all trade and traffic between the Indian Ocean and the China Sea.

At the end of the Napoleonic Wars in 1815, the British put the finishing touches on the stage setting for the colonial era in Asia. They established the Dutch in control of the East Indies (now Indonesia). The Portuguese were permitted to keep control of the tiny remnants of their trading empire—Goa in India; half of the island of Timor in the Indies; and Macao off the South China coast. The French were granted a few port cities in India, and later in the nineteenth century they established a new colonial empire in Indo-China. The Spanish, who had arrived from the west coast of Mexico rather than around the Cape of Good Hope, continued in power in the Philippines. Such was the colonial line-up, with Britain, recognized as the primary power, extending its control progressively over Ceylon, Hong Kong, Burma, Malaya, and northern Borneo. It was in these colonies, starting with the middle years of the nineteenth century, that the population of Asia began its extraordinary explosion.

The most immediate stimulus to the population growth in its early stages was not that Asians and Europeans were suddenly thrown into more direct contact with each other than before, but simply that imperialism brought with it an era of peace. For nearly a century and a half, with such minor exceptions as the "Mutiny" in India in 1857 and the British expedition up "the road to Mandalay" in 1885, the European colonies in Asia enjoyed a Pax Britannica.

The men of such warrior castes as the Moslems and the Sikhs in India, the Malays in Malaya, and the Amboinese in the East Indies were recruited into the armies and police forces of the imperial powers to protect the borders and the internal peace of the colonies. Tribes with warlike traditions were subdued and put to peaceful and productive tasks. Among the Dayak headhunters of Sarawak in northern Borneo, for instance, a boy used traditionally to be considered a man only when he brought back to his village a human head which he himself had taken. A century ago the Brooke family, the "White Rajahs of Sarawak," persuaded the Dayaks to give up fighting and settle down to farming, and to substitute a pig's head for a human's in the manhood ceremony.

So peace descended on the troubled lands of South and Southeast Asia. War, in itself, is not such a destroyer of lives as are the troubles it leaves in its wake—poverty, famine, and disease. In the absence of war, these scourges struck less frequently. More Asians were spared to live—and to produce still more Asians.

Prosperity is normally considered a handmaiden of peace. In the colonies of Asia, imperialism brought its own limited form of prosperity as well. Looking back from their new nationalistic vantage point, many Asians hate to admit that imperialism brought any benefits whatsoever. But it surely did. The imperialist prosperity was, it's true, selective. In India,

for instance, the British used their power to discourage the age-old Indian manufacture of cloth. Tariffs and taxes were so regulated that an Indian could buy cloth woven in a Manchester factory from Indian raw cotton more cheaply and easily than he could buy homespun woven in his own neighbor's cottage.

If weavers didn't prosper, millions of other Asians did. Their imperial rulers brought new land into cultivation. British engineers established irrigation schemes throughout India. French engineers planned the dikes and drainage canals which opened up the great deltas of Vietnam. Under European direction, Asians cleared jungles and drained swamps so that they could grow more crops. European surveyors laid out roads so that farmers could get their crops to markets. Using, of course, Asian labor, the imperial rulers developed the land of Asia to support more people than ever before.

The Europeans encouraged Asians to grow crops that could be sold for cash, such as coconuts, palm nuts, hemp, coffee, cinnamon, and citronella grass. If the crop was more productive when grown intensively on a large scale, Europeans provided the capital to establish plantations. Europeans introduced new crops which Asians could grow for cash, or, in some cases, for food. The British stole a few rubber shoots from Brazil, nurtured them in Kew Gardens, and then planted them in the red soil of Malaya, with fantastic success. The British and the Dutch brought tea plants from China to the highlands of Bengal and Java. Europeans introduced the intensive culture of sugar, corn, sweet potatoes, and tobacco.

The Europeans developed mineral deposits that had been little used, and European geologists and explorers searched for and found new deposits. Under European direction, Indians produced coal, iron ore, and rare metallic ores; Malays and

Indonesians produced tin; Burmans produced lead and rubies; and Filipinos produced gold and salt. Europeans and Americans are still directing the search for oil—a search that has led to the development of important oil fields in Indonesia, in northern Borneo, and in Burma. Most of these minerals were only valuable because of the growing industrial market for their use in the West.

It's all very well to say that the profits from these ventures were returned to Europe. In many cases, though not all, they were. But the new lands, the new crops, and the new minerals brought better economic conditions to the Asian regions in which they were developed such as those regions had never known before. And the surest test of this improvement was the increased capacity of these parts of Asia to keep people alive. Asia as a continent gained in productivity, but for Asians this step toward prosperity was too often erased by population growth.

A prime example is Malaya. Sixty years ago, before the emergence of the importance in the world economy of tin and rubber, Malaya was a sleepy, tropical peninsula covered with jungles from shore to shore. Its principal inhabitants were the Malays, a water-loving people who built their villages only on the banks of rivers or along the seacoast, never in the highlands. They lived by one of two means; either they practiced piracy on the coastal trade, or they relaxed, catching a few fish from the streams and the seas, growing as much rice in their village fields as they could raise without hard work, and gathering such fruit and coconuts as grew locally. On the east coast of Malaya you can still see villages of exactly this sort, except that the piracy has been subdued.

On the west coast of Malaya, the soil was found to be ideally suited to rubber culture, and the great tin deposits were dis-

covered. When the Malays proved unwilling to do the hard work of cultivating and mining, the British imported laborers from China and India. This was the cheapest labor in the world. The Chinese and Indian coolies flocked to Malaya because at home they were hungry. In Malaya they could get jobs. They ate; in Asia, that's prosperity. Eventually they brought wives. They had children. The economy of Malaya expanded, not steadily but, as the use of the automobile increased the demand for rubber, in great jumps. Jobs developed for the children of the immigrants as they grew up, and they abandoned all thoughts of returning to their homelands. Today, little food is grown in Malaya—only enough to feed a third of the inhabitants. The rest must be imported. The country depends on the two great exports whose production was developed under imperial rule—rubber and tin.

Since 1911, including the figures for Singapore, the population of Malaya has increased fivefold, from 1.7 million to more than 8 million. The Chinese immigrants led the way, with a birth rate regularly running around 40 per thousand. The Indians soon passed them, with an average annual birth rate of 45 per thousand, and in one year, 1949, the census takers clocked them at an astronomical 50 births per thousand. It was assumed by all the population authorities that the sleepy Malays were doomed soon to be outnumbered in their own country. To the surprise of everyone, however, after World War II the Malays roused themselves. Their birth rate began to spurt. In four years, between 1948 and 1952, it is reported to have soared from 37 per thousand to 46 per thousand to take over the lead in the Malayan national baby derby. The three-way population race among the three groups is reflected in the political jockeying for position to see who will inherit control of Malaya from the departed imperialists.

In addition to bringing a prosperous colonial situation to Asia, the Europeans brought new measures with which to cope with such disasters as floods, droughts, and famine. In the pre-colonial days, starvation could strike one area while in a region only a few hundred miles away a food surplus was being built up. There were no ways to co-ordinate relief efforts, or to transport the food even over short distances. But when the Europeans took control, their ships could be counted on to bring food to any stricken country. In India the British built a network of railroads, designed primarily for transporting troops but also capable of carrying large quantities of food in a hurry to any areas hit by disaster. A measure of the British success is the record of thirty years after 1913 during which India went without a major famine. In fact, when in 1943 the monsoon rains failed to come to Bengal, and the drought ruined an entire rice crop, no one in authority had experience in the technique of coping with such a situation. Thousands on the farms themselves died of hunger, and in Calcutta the sidewalks were covered with the dead and the dying. It was months before relief was effectively organized. This one exceptional occurrence merely proves the rule. Over the years, the incidence of death by famine in colonial Asia was drastically reduced.

But of all the Western imports which have caused the population of colonial Asia and, more lately, of all Asia to grow, the most important have been the public health measures. In some cases the Westerners brought their modern medical methods to Asia out of motives of charity and good will. In other cases, the motives of the Europeans were more selfish, or at least dictated by self-interest. They set up water purification and sewage-disposal facilities with the sensible purpose of protecting their own civil and military communities living in the colonies. In many areas the imperial powers established hospitals and health stations for the sound economic reason

of protecting the labor force from disease. The owners of rubber plantations in Malaya, for instance, long ago inaugurated regular physical examinations of all their workers.

The Western impact on health standards was not brought about chiefly through doctor-patient relationships. The most successful measures introduced were the mass schemes involving sanitation, water supplies, vaccinations, and epidemic control. The departure of the Western colonial governments from the Asian scene, therefore, has not in itself altered the standard of health services the average Asian can expect. To use Indonesia as an example, the Dutch used to station a Western-trained Indonesian public health technician in every market town throughout the Indies. By 1938 the public health service had stamped out all the major epidemic diseases except malaria. The Japanese occupation and the long years of civil war undid this achievement. Thousands of Indonesians died from new epidemics. Now the Indonesian government has re-established the system much as it was before the war, and the ordinary citizen enjoys the same type of care he got under the colonial regime.

Western standards of medicine still make themselves directly felt through medical missionaries, through the Rockefeller Foundation, and through the World Health Organization. The hospitals of the Presbyterians, the Seventh-Day Adventists, and the Roman Catholics are among the best in Asia and probably maintain higher standards than the great majority of the local government hospitals. Most of the mission hospitals, however, are located in cities or large towns. The great mass of Asians do not have access to their facilities.

Only occasionally does an adventurous spirit set up a clinic in a remote, rural area with all its discomforts. Such a one is Dr. Gordon Seagrave, the famous "Burma Surgeon," who still maintains his hospital in the Namkham Valley of north-

eastern Burma, a half-mile from the Red Chinese border. The Burmese of six separate tribes come from four hundred miles around to seek his care. Perhaps even more important, his system of training nurses has sprinkled the region with his "girls," thoroughly educated in modern medical practices.

Since World War II the anti-imperialist prejudice of the new nationalist regimes has hindered the operations of the missionary hospitals. American and British missionaries of all the Christian sects, driven out of China by the Communists, have been looking for places to establish themselves in India and Southeast Asia. The Asian governments have received them only with suspicion, and in many cases have refused to allow entry permits even to trained doctors. In Burma, Dr. Seagrave himself was subjected to eighteen months of prison, charged with treason, before he could prove his innocence and get back to his hospital.

The contributions of the Rockefeller Foundation in the fields of research and experimental medicine have had a great effect on the health of Asians. Its work over the past twenty-five years in studying new ways to combat both the epidemic and the endemic diseases of Asia is paying off today in the health campaigns being conducted throughout the continent.

The United Nations has introduced a new element into the Asian health picture—the contribution by the West of the latest weapons of science to fight Eastern diseases on the village level. Through WHO and UNICEF (U.N. International Children's Emergency Fund) the Asian countries can get help in their battle for better health for their people. Campaigns against malaria, yaws, trachoma, hookworm, and all the epidemic diseases have been going on in all sorts of out-of-the-way spots under U.N. sponsorship. In most cases such campaigns are co-operative ventures. The government of the country supplies the bulk of the personnel and the facilities; WHO adds

the trained doctors and scientists; UNICEF, if the campaign concerns children, contributes funds. In Indonesia, American aid dollars have been added to make the anti-malaria drive a success.

Under the impetus of all these agencies, the health of Asia is slowly improving. Epidemics of plague, cholera, typhoid, diphtheria, and smallpox are controlled by sanitary measures and inoculations. DDT is reducing the threat of malaria in mosquito-ridden sections of India, Java, and Thailand. A shot of penicillin has cleared up the painful yaws of more than a million Javanese children. With every passing year the Asian countries are improving their mastery of the techniques of fighting the diseases peculiar to their countries.

What are the effects of the improvement of health standards in Asia? In the first place, healthy people are, obviously, able to accomplish more than sick people. "In areas where large proportions of the people are afflicted by debilitating diseases," United Nations demographers reported in 1953, "improvement in the health status of the population may be the most rapid means of increasing the efficiency of labour." A single seasonal anti-malaria campaign carried out in the East Bengal area of Pakistan, according to the U.N. reports, was believed to have been responsible for a 15 per cent increase in the rice crop yield. After a similar campaign in the Philippines, managers of a number of business enterprises reported that absenteeism had fallen from 35 per cent to 4 per cent. In addition, the managers said, only 70 to 80 per cent as many workers were needed to perform a given job after the campaign as before it.

But the secondary result of any improvement in health standards is, in the long run, a far more noticeable phenomenon—a jump in the population figures. In every Asian country,

to a greater or less degree, death rates have been progressively driven down. More people today live longer than ever before.

It is a comparatively simple trick to reduce the death rate of an underdeveloped country. There are no figures to show exactly what happened in any Asian country in the nineteenth century when the Europeans were first introducing their systems of health protection, but a more recent illustration will give an indication. The Japanese, after having learned Western methods of administering a colony, took over Formosa from China in 1894. They wanted to use the cheap labor of the Formosans and the rich soil of the island to help make up the food deficit in their homeland. To protect the labor supply they set up one of the most efficient public health systems in Asia, with a thorough network of hospitals and first-aid stations. In 1905, when they began to keep records, the death rate on Formosa was between 35 and 40 persons per thousand per year. By the middle thirties, Japanese public health measures had reduced the level to 20.6 persons per thousand, nearly halving the death rate in thirty years.

Today's public health measures, which utilize the "miracle" drugs and chemicals, produce even more startling results, an example of which occurred in the single year 1947 in Ceylon. Under the impact of British imperialism, Ceylon's population is estimated to have increased steadily from about 2.5 million in 1870 to 6.7 million in 1946. Although some of this growth can be attributed to immigration of laborers from India, the bulk of it was a result of natural increase—the excess of births over deaths. The Sinhalese were not, however, healthy by Western standards. The death rate in 1946 was 20 per thousand, and it had remained at that level for fifteen years. The great killer was malaria. The Sinhalese, as it happens, are concentrated in about one-fifth of the territory of their island, the only portion that is habitable. The entire population,

therefore, is easily accessible. The World Health Organization decided to make its first major experiment with DDT on the mosquitoes of Ceylon. In the single year 1947, a systematic anti-malaria campaign reduced the death rate on the island by one-third, from 20 to 14 per thousand.

The death rate in Ceylon has continued to fall—to 12 in 1952 and to 10 in 1956. But the birth rate has remained steady, between 35 and 40 per thousand. In other words, the crude increase in the population each year has been above 25 per thousand, or 2.5 per cent. In ten years the population of Ceylon climbed from 6.7 million to 8.9 million, an increase of one-third.

At an estimate, the 9.2 million Sinhalese of 1959 were living on only a 10 per cent greater gross amount of food than that which fed 6.7 million in 1946. The latest information indicates that the island population is continuing to climb at the explosive rate of 2.8 per cent a year, a fast enough increase, if it is continued, to double the number of Sinhalese every twenty-five years.

Reducing a birth rate is a different matter from reducing a death rate. A birth pattern is built into a culture. Even if the nineteenth-century imperialists had wanted to establish a check on the growth of population, they couldn't have done it. As it was, they were delighted with the increase among their colonial subjects, both from an economic and from a psychological point of view. The expansion of the labor force seemed all to the good, and the rulers of each colony pointed with pride to the population growth as a proof of the success of imperialism.

In most Asian cultures, public health measures have had a notable effect on the efficiency of reproduction. They have increased the proportion of babies born alive and healthy rather

than dead or diseased. They have reduced the shockingly high infant mortality rates. No one can argue that these were not praiseworthy results.

Still, the haunting fact remains that to this day in practically no part of Asia outside Japan has the birth rate perceptibly fallen because of any form of public health activity.

Not all the countries of Asia felt the impact of the West in the same fashion. The two great nations the farthest east and the most removed from Europe reacted to the arrival of the imperialists in ways far different from those of their neighbors.

Where India faced the early Western adventurers with an empire in a period of decadence, China had just acquired a brand-new dynasty in the middle of the seventeenth century, and the nation was ready to meet the threat of European domination. The Manchus invaded the empire from their bleak northeastern prairies, and in 1644 drove out the last Ming emperor. One of the curious phases of the war was the first example in the history of Asia when a colonial power was forced by Asian troops to evacuate an Asian territory it had occupied. A warlord supporter of the Mings, usually known in the West by his Europeanized name of Koxinga, retreated to the seacoast before the Manchu attack. There he put his soldiers on ships and invaded Formosa. Formosa at that time was held by the Dutch, who had replaced the Portuguese, the first Westerners to have seized the island. Koxinga drove out the Dutch and made Formosa his refuge. He and his descendants held the island on their own for half a century, defying the new power on the mainland in a manner strikingly similar to that of a more modern refugee from China. The Manchus finally subdued Formosa and added it to their empire.

In the "time of troubles" of the latter days of the Ming

dynasty, the population of China had declined. In the long era of peace and prosperity under the early Manchus, the population rapidly picked up. Why, no demographer really knows. During the first two centuries of the Manchu rule, from 1650 to 1850, the Chinese are believed to have multiplied at a greater rate than any other people of Asia. In that period the population of China is thought to have tripled in size. Working backwards from the latest census total, we can make a guess that it soared from something like 150 million to 450 million in the two centuries—and all without benefit of Western influence.

From 1850 on, just as such impact as the West ever did have on China began to be felt, the growth that had developed under the early Manchus slowed nearly to a halt. Even at a quarter of 1 per cent a year, the population could have grown to reach the 583 million figure by 1953.

Why did the West have so little influence on Chinese life? The first Manchu emperors were tolerant of Western visitors and allowed Jesuit missionaries the freedom of the country. But differences arose over the application of ancestor worship to Christianity, and over the proper interpretation of the meaning of God. The Manchus soon changed their policy and suppressed the Jesuits and their converts.

As for Western merchants, the emperors restricted their activities to one small area of Canton. There they were permitted to deal only with an officially designated group of Chinese traders. The trade, however, grew more and more important to both sides. Chinese teas, silks, and cottons were in demand in the West. The Europeans paid first in gold specie, and when that ran short, the British found a valuable new trade commodity—opium, grown in the hills of northeastern India. When the Chinese tried to restrict the import of opium in 1842, the British sent a fleet to harass the China coast and the Yangtze

River. The emperor came to terms, granted the island of Hong Kong to the British for a trading post, and agreed to open four new ports to Western commerce. On two later occasions the British and the French made war on China. As a result, more and more ports were opened to foreign trading. For a century—until the victory of the Communists in 1949—the coastal ports of China were continually under Western or other foreign influence.

But the great interior of China was never directly affected by the West. The “foreign devils” stuck to their cities, except for a few missionaries, most of them American. For better or for worse, the Manchus and later the Nationalists clung to their right of sovereignty over the country. They were backed by the United States with its policy of the “open door,” equal trade rights for all. The Western imperial powers never had an opportunity to “develop” China as they had India or Java. China got no real road net, no public health system, and no great engineering projects to irrigate the land. The Chinese government developed no means of fighting famine, floods, droughts, or plagues. Civil wars and invasion swept across the country as they have no other nation of modern times. For all these reasons the population of China, unlike those of colonial India and Southeast Asia, remained roughly static for a century. China felt the impact of the West, but never in ways that caused an immediate increase in population.

The population history of Japan has also been distinctive. The Japanese as we know them today are composed of a mixture of three immigrant stocks—Manchu-Korean, Mongol, and Malay. The population of ancient Japan apparently rose steadily from the time of the first few immigrants from the mainland, and it had reached 18 million when Europeans first arrived on

the scene. The initial impact of the West was great. The success of the Jesuits, led by St. Francis Xavier, was immediate and phenomenal. In 1581, just thirty-two years after his arrival in the islands, a count showed that his followers had made 150,000 converts. The Shoguns who ruled Japan decided that Westerners were becoming too influential, and forced both the Jesuits and all other Europeans to leave.

For more than two centuries the Japanese shut their doors to all Westerners except a handful of Dutch merchants who were permitted to maintain a small trading station on an artificial island in the harbor of the town of Hirado. In its isolation, Japan prospered. Its population continued to grow for the first century, then leveled off between 28 and 30 million and stayed there. In years of good harvests it rose. It fell when such diseases as cholera, dysentery, typhoid fever, and smallpox took more than their usual toll, or when a severe plague struck.

There was one significant demographic difference between Japan and the countries of the continent; isolated on their island, the Japanese were very much aware of the threat of overpopulation. Their country had what amounted to a closed economy. Its rice fields could support only a population of a certain limited size. Even in an individual village, "excess" children were unwanted. The people themselves practiced infanticide and abortion. The warriors of the Samurai caste commonly waited to marry until they were financially able to support families. This ancient tradition of population control has become important in recent years.

The story of the return of Japan to the world is well known. Commodore Perry arrived in Tokyo Bay in 1853. By the end of the next thirty years the impact of the West on Japan was greater than it had been in three centuries on the rest of Asia. Almost from its first contact with the outside world, the country enjoyed a new prosperity and an increased ability to produce

goods. The population resumed its climb. It hasn't yet stopped climbing, although, as we have noted, it is finally slowing down. Despite the disasters of World War II, Japan's population has tripled in the past century.

The pattern of increase, however, has been of such a special nature, and the outlook for the future is so different in Japan from that in any other country of Asia, that to discuss Japanese population growth will require a section to itself later in the book.

It must be kept in mind that while Asia has been growing in population, the rest of the world has not stood still. We're all in this explosion together. More people are living on the earth today than ever before. In merely the thirty-five years between 1920 and 1955, according to United Nations estimates, the population grew by 900 million, from 1.8 billion to 2.7 billion, an increase as great as the total world population in 1800.

A demographer has estimated that the total number of human beings ever to have lived since our ancestors first began to fashion rough stone tools is around 50 billion. Assuming that this figure is somewhere near right, 6 per cent of those human beings, or one out of every 17 persons who ever drew breath, is living today.

During most of the past three centuries, Asia hasn't even grown as fast as the rest of the world. Through most of ancient history, Asians are believed to have made up about three-fifths of the population of the earth. In 1800, when the greatest burst of Western expansion was about to begin, Asians probably formed two-thirds of the world population. During the nineteenth century, although Asians themselves increased their numbers faster than they ever had before, the rest of the world grew at a still speedier pace.

It hasn't been until the past thirty-five years that much of the rest of the world has slowed down, and the Asian rate of increase has caught up. Since 1920, Asians have constituted just over half of all human beings. The human race is expected to hit the 3-billion mark sometime in 1962. Asia probably passed 1.5 billion in 1958, making its population nearly equal to that of the entire world in 1900. And, as we have seen, Asia's share of the total is expected to grow still further in the years ahead.

But the fact that Asia hasn't really been growing in population faster over the long haul than the rest of the world doesn't alter the exceptional seriousness of population growth in the East. New masses of people have been added to lands that were already teeming with human beings.

It is impossible to set up exact standards as to what constitutes "overcrowding." Are Great Britain and the Netherlands "overcrowded"? In any case, few Western observers would deny that such areas as the Red River delta of North Vietnam, the entire islands of Java and Ceylon, and, in fact, the whole great land masses of India and China contain more human beings than any conceivable optimum number.

There are too many Asians for their own good. They have been breeding trouble for themselves—and for the world as a whole.

CHAPTER FIVE

Asian Life: The Village

The roofs of the houses may be made of nipa palm leaves thatched to keep out the monsoon rains, or of rusty galvanized iron as a protection against Himalayan snows. The walls may be of mud bricks or of rice paper. The floor may be hard-packed dirt, or slender rods of split bamboo, mounted six feet above ground on stilts and undulating gently each time someone walks across them. It doesn't matter what the building materials are, or the color of the faces of the residents; there is a certain sameness to the villages of the free areas all over the great continent of Asia.

Allowing for differences in climates and customs, village life follows a common pattern from the dry plains of Pakistan to the damp jungles of the Philippines, and from the crowded coconut groves of Ceylon to the bleak, war-torn hills of Korea.

Until ten years ago, that same statement might well have included China. But in their brief period in power the Communists have succeeded in breaking the pattern of village life that had endured for centuries. They did so first by executing

the landowners and redistributing their acreage, and then by decreeing the rule of collective ownership of the land of each village. Finally in 1958 they imposed a far more radical change on the villagers—the system of communes, with their regimentation, their mess halls, their nurseries, and their complete abolition of the rights of the individual.

In the non-Communist countries, village houses are usually grouped companionably together along the dusty road that wanders away toward the next town. The well is the social center, and not far from it are the village shops, which may be nothing more than open-air booths. Down at the stream—if there is one—the women chatter as they pound and knead the family washing on the rocks. Even if the countryside around it has been deforested for centuries, almost every village can boast a few trees—an ancient banyan with its entwined trunks, among which live the guardian spirits of the community; a line of plane trees to give shade in summer and to break the wind in winter; or, in the south, an orchard of mangoes, papayas, and bananas. Except in the poorest of villages, almost every house has a small back-yard garden, a tangle of family vegetables—squashes, peppers, and greens.

Perhaps the most striking quality that Asian villages share in common is their deceptive air of relaxed impermanence. Termites eat the wood; rain melts the mud, walls of stone collapse, and humans die. But many of the settlements which seem to have the most tenuous grasp on their environment have been located in one place since long before the English hamlets listed in the Domesday Book. Good soil, a river, protecting hills, a pathway to the neighboring town, a good harbor for fishing boats—those were the reasons a village was founded and those are the reasons why it remains in existence. In India, high mounds of mud often mark the site of a village that melted away many generations ago. The new mud houses are

standing a stone's throw away, or even on top of the old mound.

A village may range in size from 100 persons up to 3,000. The one test that determines the difference between a large village and a small town is the dependence on the land. If the majority of the people of a community make their living from trade or manufacturing or providing services, the community is usually considered to be a town. If the majority work on the land for a living, it is accepted as a village.

Nine Asians out of every ten live in villages, and most of them depend on the land. The entire economy of the continent is rooted in the soil. A high proportion of laborers is necessary on the land to keep the economy rolling. In America one farmer, working with his tractor and his intricate machinery, can produce enough food to support himself and his family, and 16 to 18 city dwellers besides. In Asia it takes two farmers, sweating and laboring with their oxen, their simple plows, and their own hands, to produce enough of a surplus of a food to support one city dweller.

The margin between subsistence and starvation is a slim one, even in the village. One year of bad weather, one season when the monsoon rains fail to come, can bring tragedy to an entire countryside.

Three-quarters of all Asians depend on rice as their basic food. Through all of South Asia the cultivation of rice forms part of the pattern common to the villages. Americans have proved that rice can be economically grown by mechanized methods, such as spreading seed from airplanes. But to mechanize the agriculture of Asia would merely deprive millions of farmers of their jobs without increasing production or providing substitute employment. Besides, mechanization isn't suitable to the tiny fields that surround the Asian village. The intensive Asian system requires constant labor to prepare the ground, to plant the seeds, to transplant the seedlings, incessantly to

weed the growing crop, and finally to harvest it. In the growing season there is work not only for the men and women of the village but for the children as well.

For the villagers the fallow months—the dry season in un-irrigated land, or winter in the mountains and the north—are periods of welcome laziness. The house may need rethatching or the mud walls repairing, but those chores don't take long. The farmer owns few tools, and their upkeep is simple. Men have few productive hobbies. Only in a few highly developed parts of Asia—notably in Kashmir and Bali—do the villagers themselves produce fine works of craftsmanship in their leisure time. The bulk of the arts and the handicrafts of Asia come from the towns. In the villages men spend their non-working months sitting under the trees, calmly and passively, for days on end. The villager knows no other skill than farming.

Like women all over the world, the village women in Free Asia have their household tasks and their children to keep them busy when they aren't working in the fields. In some areas village people continue to weave their own materials for clothing, but homespun has an increasingly difficult time competing with machine-produced cotton or wool.

Basic to village life everywhere in Asia except in Communist China is the family. It is the social and economic core of society. It provides the manpower supply. It is the substitute for social security and old-age insurance.

As we have noted, any farmer, whether in Asia, Europe, or America, is apt to consider a child to be an economic asset. The Asian farmer doesn't shy away from a large family simply because it will crowd his little house. He thinks he needs as many children as possible. Within a comparatively few years after their births he hopes to put them to work in the fields to ease his own burdens. If he has enough children, he believes, he can

retire and let them support him while he sits in the shade of the village trees.

Every Asian village swarms with children—alert, curious, often naked, potbellied, and cheerful. By the time a boy is five he is out herding the family ox or water buffalo. At the same age a girl, not as welcome an addition to the family as a boy but still useful, is taking complete charge of a younger child, carrying it around the village on her hip. Before they reach adolescence both sexes have mastered most of the skills they will need during their lifetimes.

The death of a child in an Asian village is a frequent event. The family's grief is real and intense, but parents are usually resigned to the loss of some of their offspring. A child's funeral rates less pomp and ceremony than an adult's. The father may, singlehanded and without mourners, carry his sad burden wrapped in a white cloth to the burning ghat or the burial ground.

Asian villagers usually seem to have no concept of time as a continuous flow into the future. They seldom worry about events beyond their own life spans. Traditionally, a farmer isn't concerned with the affluence his grandchildren and their grandchildren will enjoy. Even if he owns only half an acre of land—a moderate size for a landholding in Asia—he doesn't worry about the difficulty of splitting the property among four or five heirs. In some crowded regions a child's inheritance may consist only of the annual yield of fruit from one tree in an orchard.

Except in Japan, there is hardly a village in Asia that has not grown in population during the past fifty years. Despite the departure of villagers in some countries for the cities, and their migrations in other countries to unsettled areas, the villages get more and more crowded. There has been some expansion in the amount of land available to a village for farming, but rarely has it been enough to match the population growth. Villages in

what used to be food exporting regions, such as the Punjab in India and Pakistan, and the Red River delta in Vietnam, now produce only enough for their own needs. Villages that used to produce just enough for their needs now go short.

Nowhere in the world can a farmer's prosperity or poverty be measured solely in terms of money. Farmers traditionally produce many of their own needs on their own land and get along on a minimum of cash. The poverty in monetary terms of most Asian villagers is far more extreme than anything known in Europe or America.

The figure of fifty dollars per capita is often used to represent a sort of median Asian income. It's a handy, round figure. But it is doubtful whether the average Asian subsistence farmer sees the equivalent of fifty dollars in cash in the course of a year. Of course it's true that he doesn't require much money. With a little rice, a few bamboos, a palm tree for its oil and its leaves, and a fishing pole, an Asian can feed and shelter himself and his family. But even in the most primitive village today he needs some cash for a few pieces of cotton to clothe the family, for spices and condiments for his food, and for an occasional pack of cigarettes. He must buy tools with which to work his fields, and occasionally he must make a capital investment in a work animal. The sum of money he gets from the sale of his products after one harvest is seldom enough to last until the next. As a result he is almost perpetually short of funds. He turns for assistance to the local moneylender.

The moneylender is a standard part of the scene in nearly every village in Asia outside the Bamboo Curtain. Often he is the village shopkeeper. In Southeast Asia he is usually Chinese; in India he belongs to one of several special moneylending castes, such as the Chettiars. In either case he is a well-hated man. He habitually charges from 50 to 200 per cent interest on his loans. He deals in short weights, he falsifies his figures, and

he otherwise cheats the illiterate farmers he deals with. Often he holds mortgages on most of the lands around the village, or owns them outright. Many farmers are in debt to him from the time they are born until they die.

The special pitfall of the Asian peasant is the feast day. A wedding or a major religious celebration always calls for a big blowout. The head of the family throwing the feast must provide food and, often, strong drink for the entire village. The cost may be as much as his entire income for a year. A farmer who marries off a few daughters in traditional style incurs a debt to the moneylender which he and his heirs must spend years paying off.

In ordinary day-to-day living, however, the needs of village people are small. Their diet is based on rice in the south, on wheat in the north, and, in scattered regions, on a few other staple grains such as millet. In most rural areas people eat two meals a day, morning and evening. The rice is almost universally polished and boiled. It may be eaten plain, or with a sauce of fish or vegetables. In northern China the wheat is made into noodles; in northern India and Pakistan, into "chapatties," or flat, unleavened pancakes.

Of all the people of Asia, only among the Chinese has there been a tradition of tasty peasant cooking. In even the poorest pre-Communist Chinese home the smell of the cooking pot was appetizing. It is hard to believe that Mao Tse-tung's communal kitchens will ever be able to provide a substitute for a home-cooked Chinese meal.

The foods of other Asian farmers are less appealing. Only with difficulty can foreigners learn to like the raw fish of Japan; the Indian "dahl," a gravy made of mashed peas or beans; or "nguoc mam," the Indo-Chinese sauce made of fermented fish and salt. The sticky rice of Laos, which one dips into a little dish of red pepper to give it taste, and the millet ball of southern India,

which looks like a wad of red clay and tastes, to Westerners, about as it looks, are the foods of people who eat only to stay alive, not to enjoy gastronomic pleasures. The meat dishes known in the West as oriental cooking—Chinese sweet and sour pork or Peking duck, Japanese sukiyaki, Indian curries, and Indonesian rijstafel—are the luxury foods of townsmen. Villagers eat meat only occasionally, such as on feast days.

Western standards of men's clothing have made inroads on the villages because of the essential simplicity of shirts and trousers. But the majority of male villagers still wear the white muslin dhoty in India, the bell-bottomed black trousers and tight jacket in Vietnam, and the sarong in most of Southeast Asia. In the rice paddies farmers strip to their shorts to wade thigh-deep in the mud. Village women maintain the traditional local styles, but they use machine-made cotton cloth for most of their sarongs, pajamas, saris, trousers, or skirts.

For a child, the chances of getting an education in a village vary from country to country. In Japan, nearly every village child goes to school. In the Philippines, with the highest literacy standards in Asia outside Japan, the school is the center of village social life, for the adults as well as for the children. At the other extreme, in Laos and Cambodia there are no village schools except an occasional temple school run by the yellow-robed Buddhist priests. In general, governments pay less attention to the schooling of village children than to that of town children, probably because the village parents show little interest in getting an education for their offspring. A boy or girl, after all, becomes economically valuable far earlier in the village than in the city.

Without much education, without books, magazines, newspapers, and radios, villagers in Asia are to a large extent out of touch with the world around them. In a village only twenty miles from Bombay an American sociologist tried to take a

public opinion survey on national and world affairs. He was surprised to find that the villagers had no opinions at all on many of the questions he asked. They simply had no background of knowledge. Most of them had vaguely heard of something called America, and knew it was a land across the sea, but their acquaintance with it stopped there. Although all of them were familiar with the name of Gandhi and knew he was a great teacher, few of them knew more about him—even that he was dead. Surprisingly, the name of Pandit Nehru rang no bell at all with many of the villagers, and few could identify exactly who he was. In varying degree the same insularity would show up in villages all over Asia. It hasn't been the villagers who have brought about the great revolutions of the past fifteen years. The real nationalist revolutionaries have been the educated members of urban minority, who came in contact with the West and learned its ways.

In all the time that Westerners were ruling the roost in Asia, few of them had much direct contact with the villages. Even in relatively accessible parts of the great empires, such as Java, it's likely that many villagers never came in contact with Europeans. The Europeans lived in the cities, where there was governing to be done and trading to be carried on, or on the plantations, where there was a profit to be made.

Indirectly, however, the West has influenced even the most remote village. The evidence is the local shop. Universally the tiny Asian village store carries much the same line of goods. In a few bins will be locally produced staples—rice, peppers, flour, and spices. The rest of the stock will be a compound of manufactured goods—cigarettes, hard candy, knives, canned sardines, kerosene, crackers, soap, and patent medicines. Asia's passion for soft drinks has meant a new industry for the cities. In the

village the bottles of orange squash and "aerated waters" are increasingly popular. Above all, it gets harder and harder to avoid the pause that refreshes. Miles deep in the jungles of Mindanao or in the highlands of upper Thailand, village headmen ceremoniously offer Western visitors a bottle of Coca-Cola, which may have been brought to the locality by pack-pony. The villagers themselves usually prefer to drink their Cokes with a pinch of salt added.

For most villagers the big trading spree takes place at the weekly market in the nearest town. The produce of the villages for miles around changes hands. The women sell their pepper to buy underpants made in Japan, or new pots and pans. They sell their home-woven cloth to buy beans from the next village, a pair of silver earrings, or some artificial flowers. The men, meanwhile, haggle over plows, pigs, and goats. The market also has its social aspects. At the bazaar at Namkham on Burma's northern border with Red China, the menfolk can seal a bargain with a peaceful pipeload of opium; the bazaar rents them the pipes, and even provides benches for them to lie on while they smoke.

The West has introduced sanitation to the cities and the larger towns of Asia, but plumbing facilities in the average village are sketchy. An uncovered hole in the ground or a platform built out over the river usually suffices. Throughout their own country and their settlements in South Asia, the Chinese utilize "night soil" to fertilize their fields, and in doing so extend the endless cycle of intestinal diseases. Most of the rest of rural Asia lets its wastes float away on the streams—the same streams which all the villagers along the banks use for washing and for drinking water.

But if Western influence hasn't wiped out the causes of disease, it has at least begun to provide cures. Villagers are intrigued with Western medicines. They may continue to use the

traditional roots, herbs, and prayers, but they also invest their meager savings in aspirin and sulfa drugs. Such public health centers as the Western imperialists established still exist in the free countries of Asia, along with the scattered missionary outposts. Particularly in India the public health centers are being extended to smaller towns and large villages as fast as the country can afford. Often a medical technician armed with antibiotics, even if he has only the most rudimentary education, can cure a sick child that would have died if it had had to depend on village remedies. In most of rural Asia the great advances in "death control" are yet to be made, but they appear to be on the way.

It is equally true that if there is to be a change in the pattern of Asian births to match the changes in the pattern of deaths, it must come in this same rural environment of the village. There are no signs that such a change is likely to occur spontaneously. Any attempt to promote a change in the pattern of births must take into account the poverty, the dirt, the conservatism, and the ignorance which are integral parts of village life.

A variation on Free Asian village life is the plantation system which produces most of the export crops. Whether on a rubber estate in Malaya or Sumatra, a sugar centrale in the Philippines or Formosa, a tea garden in India or Ceylon, or an oil palm or coconut plantation in any of a dozen countries, the life of the workers is much the same.

In its externals, the plantation is organized somewhat like the southern cotton or tobacco plantation before the Civil War. The workers live in "coolie lines"—rows of shacks provided for them by the management. The foremen and clerical employees live in small houses of a better standard. The owner or manager lives in a comfortable villa, often with wide verandas, a broad

sweep of lawns, and gardens full of the exotic flowers of the tropics.

The wages of a typical worker seem minute by Western standards. In Asian terms, however, the plantation worker may fare much better than a villager farming his own lands. A rubber tapper in Malaya or a tea picker in India gets about fifty cents a day. Besides his wages he gets a sort of bonus in kind. Every country in which plantations are found has laws requiring the management to supply each worker with a ration of food for himself and his family, plus a certain amount of cloth each year for clothing. The regular ration of rice is about a pound and a half per day for each working adult. The management in most areas must provide salt, tea, sugar, soap, candles, and kerosene. In Indonesia every planter is required to supply six yards of white muslin for a winding sheet for the body of any employee who dies.

Except in Indonesia the workers are rarely organized into effective unions. There is a union organization in Malaya, but it finds its progress slow. The coolie lines are on plantation property, and organizers are not welcome. The plantation employees' union in Indonesia is a part of SOBSI, the Communist labor federation. In practice, its negotiations with the plantation owners are arbitrated by the government, which is generally sympathetic with SOBSI. Even so, the union has managed to engage in frequent violent strikes, which have helped to keep Indonesia in a state of turmoil.

In every country the new nationalist government is the plantation worker's real protection. Politicians equate management with the West and the workers with Asia. The new era of nationalist control, therefore, has brought many labor reforms, and the laws passed in the past ten years have raised the standards of plantation life. But the government regulations are always tempered by the realization of even the most nationalistic

legislators that they must keep the prices of their national exports low enough to be able to compete on the world market.

Since most plantations are run either by Westerners or along Western lines, the coolies have more contact with the West than most villagers. Working for wages on the plantation, however, doesn't seem to stop them from having babies. The standard size for a hut in the coolie lines is two rooms, each about twelve feet square, plus a tiny alcove in the rear for a charcoal stove. Into the two rooms the workers cram their families—four, five, and six children. The chances of survival of a child on a plantation are greater than those of a child in a village because the health facilities are better. Every plantation, even the smallest, must provide a first-aid station and hire a doctor or nurse to make regular visits. The larger estates have their own doctors and hospitals. Children on a plantation, brought into the world by trained midwives or nurses, vaccinated at an early age, and enjoying permanent medical supervision, stand a better chance of living to maturity and having children of their own than do their village cousins.

Few plantations have been expanding their acreage or their working forces since World War II. More children are growing up in the coolie lines than are needed to replace the workers who leave or die. There is already an unemployment problem. Boys who have grown up under the shelter of the plantation system are reluctant to leave for the free but risky life in the city or in a village. They stay with their parents even after they lose their ration status as a family member. Plantation managers don't evict them for fear of causing a disturbance among the workers. In the Darjeeling tea district, for example, the problem of the surplus young men has become so severe that the plantation owners have asked the provincial government to step in and help them. However, since the government of Bengal already has a population headache in

every village in the province, to say nothing of Calcutta, it's unlikely that it will come to the rescue of one group of tea planters.

To a Westerner the life of a worker on a plantation seems little above the slave level. The work is hard, and the living is dreary. The plantation workers, however, have a security that is denied the farmers living in villages. Only in the hardest of times, such as the depression of the thirties, do the managers seriously prune their labor force. When raw material prices are low, as they have been since the Korean War boom ended, the workers' wages go down. But the worker knows he will always get enough rice to feed himself and his family.

As a matter of fact, to most Westerners, even those in the less prosperous sections of Europe, life in an Asian village would certainly seem depressing. The standard of living is lower than anything known in the West. The discomfort, the inconvenience, the dirt, the disease, the manual labor, and the boredom would be insufferable to the average American.

On the other hand, the best of the Asian villages have a strong appeal for Western intellectuals. Bali, especially, has lured artists and writers from the West, and the appeal is not the famous figures of its young women. Bali is in a sense the Utopia of Asia. Its villages are models of what ideal Asian rural communities could be.

Bali is an island of volcanoes, and its soil is exceptionally fertile. A mild rainfall occurs steadily around the year. Over the centuries the Balinese have adapted themselves to their environment and established an almost perfect balance with it. Their terraced rice fields, irrigated by mountain streams through intricate systems of little canals, produce enough for the two million Balinese to live on comfortably, and very little surplus.

The death rate, until very recent years, remained high, and the population level has been steady. There is a peace and calm about a Balinese village that makes itself felt by even the most sophisticated visitor.

While the rest of Indonesia was being converted to Islam, the Balinese remained faithful to the Hindu religion. For six centuries they were almost isolated from contact with the West, and even with Java a few miles away. Somehow, whether because of their isolation, their religion, or their state of balance with nature, the Balinese developed a high cultural level. Their painting, their sculpture, and above all their dancing, have made them famous around the world. But their magnificent state of ecological balance is now in danger. The Dutch administrators of the East Indies, sensing that Bali was something special, preserved the island from Western influences, including missionaries and doctors, and protected the Hindu Balinese from the more aggressive Javanese and Chinese. The new Indonesian government, unimpressed by the archaic nature of the Balinese culture, has withdrawn the restraints. It isn't tourists who are spoiling Bali so much as it is missionaries, both Christian and Moslem, and salesmen.

At the lower end of the scale of Free Asian villages there are many possible choices for a horrible example. A Korean village, still suffering from the effects of the war; a village of Moslems in Kashmir, occupied by the Hindu troops of India; a "new village" in Malaya, surrounded by barbed wire to isolate the villagers from the terrorists in the jungle—life in any of these would be dismal indeed.

But for year-round misery, it would be hard to picture something much worse than a village in Rajasthan, an Indian state the size of New Mexico, which consists of the arid semi-desert running southwest from New Delhi. Rajasthan must once have been prosperous farm land. It supported dozens of Rajput

princelings, the remains of whose magnificent castles and palaces still stand around Jaipur and Jodhpur. By now the good soil has blown away. There is no shortage of land around the villages; each is isolated from its neighbors by miles of barren rocks and sand.

The whole aspect of such a village is one of discouragement and despair. The starved cattle wander across the road in search of a blade of grass. The oxen tread up and down inclined planes of earth, hauling buckets of water from the deep wells. The children stare wide-eyed at the occasional cars and trucks that pass along the road. The farmers and their wives bend over the hard barren earth, trying futilely to break its crust with their wooden hoes.

Dust settles everywhere. The village is a monotone in a shade of dirty beige—mud houses, trees, animals, and people. In such a village there is no art, no culture, no dancing. Each villager lives out his life at the lowest possible material level of existence. The only touches of color in the vast plain are the wild peacocks, which seem to thrive on a diet of dust.

But if life in such a village in Rajasthan seems dreary, at least the villagers have one compensation; they maintain their freedom as individuals. If anything, their hold on freedom has been strengthened during the years since the British left India and the princes were deposed. Both Pandit Nehru and the Rajasthan state government have placed great stress on the redevelopment of the ancient Indian system of village government, the panchayat, or village council. For centuries in India the real power of the panchayat in most villages was smothered by the control of landowners, moneylenders, and appointed government administrators. In many parts of India today, including Rajasthan, the panchayat is once again playing its traditional role.

So, despite its dreary aspects, the typical Rajasthan village

today has an elected council, which makes decisions on local problems. It serves as a court of law. It administers the co-operative business of the village. It acts as an economic planning agency on such questions as the crops to be planted during an approaching rainy season, and the amount of fertilizer to be purchased.

Local initiative on this pattern is something that Nehru is encouraging throughout India. The development—or redevelopment—of the panchayat is certainly a hopeful sign. If it has served to introduce in democratic fashion new concepts of agriculture and community life to Indian villagers, it might also prove the means through which villagers could be educated to an even more revolutionary idea, the value of family planning.

More immediately, and in the realm of politics, it has been suggested that Nehru sees the panchayat as the democratic answer to village progress through regimentation in Communist China.

The structure of the Chinese commune has been so often described to a horrified world recently that there is no need to repeat the description here. The Communists are trying, apparently successfully, to turn the Chinese peasant, once the most thorough individualist of all Asians, into a disciplined automaton. If the stories are correct, they are forcing him to rise at four-thirty in the morning, to work in the fields until sundown, and then to put in a few licks at the communal back-yard blast furnace. His children are taken from him and his wife and assigned to a nursery. His wife works in the fields or the factory along with him. They may be forced to live, as we have noted, in separate dormitories. By early 1959, at least on paper, 90 per cent of all Chinese farmers had been

assigned to one of the 25,000 communes. The implications of this rural regimentation for the pattern of births in China is tremendous.

The Western world—including even some of its Communist segments—has been shocked at the stories of communal discipline. In Warsaw there is said to be a joke making the rounds of the coffeehouses:

“Thank God for the Soviet Union! We are lucky to have a buffer state between us and the Chinese.”

But in Asia, the reaction to the commune has not been the same. In most of Asia freedom is not such a highly valued asset as it is in the West. Freedom in his daily life means less to an uneducated Asian farmer than an opportunity to get a larger bowlful of rice each day.

If Red China proves that the commune is a useful tool for improving the country's economic position, no matter what the price to the individual, the enticement will be great to other Asian countries to adopt the communal system—and communism. The traditional pattern of the Asian village might well vanish from the earth.

CHAPTER SIX

Asian Life: The City

Nowhere is the Western influence on Asia more evident than in the major cities. Shanghai has a nest of skyscrapers. Tokyo is a maze of neon lights. The water-front buildings of Hong Kong look like British versions of Venetian palazzi, and the sidewalks of the main streets run under arcades like those along the Rue de Rivoli in Paris. Bombay is a sort of tropical Brummagem, complete with red streetcars and busses. The villas around the outskirts of Saigon might have been transplanted from Provence; even their yellow stucco and their shutters are unmistakably French.

It isn't strange that these port cities should have such an international look. They were developed to serve the needs of trade between East and West. Many of them didn't exist until Westerners arrived on the scene. Hong Kong island was the site of a few fishing villages until 1842 when the British took it over as a base for their opium trade. Shanghai and Singapore were swamps until Westerners saw their possibilities for trade and defense. Saigon was just another rice-paddy village until

the 1860's when the French began developing Cochin China as a colony.

Inland and away from the ports one sometimes catches glimpses of the Asian city of the past. Luang Prabang, where the dragon palace of the king of Laos overlooks the muddy Mekong River, has hardly been touched by the influence of France. The walls of the ancient royal ghetto of the kings of Burma still stand near the center of Mandalay. Chieng-mai, once the capital of the princes of northern Thailand, boasts 100 Buddhist temples. The cities of Tibet, Nepal, and the western interior of China have been visited by few foreigners, and remain free of occidental influence. Appearances, however, can be deceiving. One of the most oriental-appearing of all cities is Kuala Lumpur, capital of Malaya. Its government buildings are so thoroughly covered with domes and minarets that they look like palaces out of a Hollywood set for *The Arabian Nights*. They were all carefully designed by British architects.

The influence of the West on the major cities is more than skin deep. The entire technology of the cities is Western. Automobiles, busses, trucks, railroads, water purification systems, power plants, and even air-conditioning machines are as much a part of Asian urban life as they are of life in Europe or America. Most of the people of the cities have acquired some education in Western ways, either formally in schools, semi-formally in their machine shops and offices, or informally in the movie theaters.

Overlaid on this Western environment, however, there is one distinctive feature that sets the Asian city apart from its European or American equivalent—the masses of people. The density of population in Asian cities is far greater than that in the most industrialized nations of the world. Bombay, for instance, has more than 50,000 people per square mile, greater than twice the density of New York City. In one ward the density has

been calculated at 79,000 per square mile. And yet the people of Bombay have no tall, efficient apartment buildings to live in. They are crammed into tenements of one or two stories. The same sort of crowding occurs all over Asia, in Lahore, Singapore, Kobe, Tientsin, and every other great urban center.

In Calcutta, perhaps more than anywhere else in Asia, a visiting stranger feels hemmed in by the crowd. Sidewalks, streets, arcades, and bazaars are jammed with humanity. At almost any time of day the Chowringhee, central artery of the city, resembles a rush hour in the West. But it is a rush hour without the rush. The wave of people rolls along slowly; time is not of the essence. A Westerner, trying to walk at a normal speed along the sidewalk, has to elbow his way through the crowd of rich and poor, businessmen and beggars, street urchins and Bengali peasants, Parsees dressed in Bond Street suits, and ash-smeared fakirs in loincloths. Once caught in the flow, a visitor can understand why Calcutta is such a center for riots. Any spark of religious or political ill-feeling can turn the mass into a mob. The city was the scene of many of the worst battles between Moslems and Hindus in 1949, and of some of the bitter Communist-provoked strikes and riots that have occurred since then.

Calcutta, a city of four and a half million, doubled in size in the twenty years between 1931 and 1951. Its growth wasn't unusual for Asia. The population of the Japanese cities over 500,000 increased from 10 million in 1920 to 27 million in 1940, and the increase outnumbered the total growth of the country. Singapore shot up from 290,000 in 1911 to 558,000 in 1931, and to 1,041,000 in 1951. The nine largest cities in India each doubled in size between 1931 and 1951.

The reasons for the urban growth in an agricultural continent are complex. Partly, as in any society emerging from an era of economic backwardness, it has happened because the cities have

been the most exciting places in Asia. Farmers have been drawn to them by a sense of adventure. The troubles of the past twenty years have speeded the growth of urbanization. The dislocations of World War II swelled the cities of the Philippines, Indonesia, and Burma. Karachi, Calcutta, Lahore, and Delhi are heavily populated with refugees from the Hindu-Moslem massacres that followed the partition of India. Hong Kong and Saigon have been more than doubled in size by an influx of refugees from communism, and during the 1940's the urban population of South Korea doubled.

But the primary reason appears to be that the cities offered the lure of jobs to the unemployed and underemployed people of the overflowing villages. To some degree, there really were new jobs to be had. All the cities of Asia are trade centers, and many of them have seen at least the beginnings of industrialization. Markets, harbor facilities, railroads, power plants, and the occasional factories have required increasing numbers of workers. But a part of the lure has been a mirage. More villagers have arrived in the towns than there were jobs to keep them occupied. Once caught up by the magnetic attraction of urban life, these immigrants have stayed on. Many of them have been able to earn meager livings in the marginal jobs of baggage coolies, porters, watchmen, and "trishaw boys," who pedal the semi-mechanized taxis common to practically all Asian countries—combinations of the rickshaw and the tricycle.

Ernest Weissmann, a United Nations planning expert, has expressed the opinion that the rapid growth of Asian cities has not only created intolerable conditions in the urban areas, but has robbed the farm lands of manpower that could have been used to produce food. Cities in Asia, he told a city planning conference in New York in 1958, appear to be growing at a rate three times faster than that of cities in the rest of the world. If the present pace continues, he predicted, Asian cities

of 20,000 persons and over might increase from a total population of 170 million in 1950 to a range of 280 to 540 million in 1975. The results: "capital and materials [shortages] . . . bad housing, poor community services, inadequate sanitation and utilities, filth, squalor and disease . . . gang activity, juvenile delinquency, crime and vice." In short, he warned, urban growth alone might be the factor that would ruin the economic development plans of Asian and other underdeveloped countries.

The only part of the city in which one can escape from the crowds is the residential suburb of the well-to-do. Building has always been relatively cheap in Asia, and the European imperial representatives set the tone for the living conditions of the wealthy with magnificent villas, and, more recently, luxury apartments. Even in the provincial capitals every European civil servant was provided with a house befitting his dignity. With most of the Europeans gone, the Asians have taken over many of the finest of the residential sections.

Curiously, the Asians who have moved into the European villas and flats have also taken over the style of living of their predecessors. The top officials of the new nationalist governments, almost without exception, are men of Western education. They live their lives in Western fashion. An extreme example is the town of Rawalpindi, in the hills of northwestern Pakistan, near which the government proposes to build a new capital city. Rawalpindi was built by the British as an army cantonment because of its strategic position below the Khyber Pass. Its slopes are covered with the villas which British officers used to inhabit. Their successors—officers in Pakistan's army—have inherited much more than the walls and the furniture. They dress in British uniforms, even to the swagger stick. They sport guardsmen's

mustaches. They speak in pure Sandhurst accents, sprinkled liberally with "jolly good's" and "bloody's." After their polo they refresh themselves with pink gins and whiskies and soda. The spirit of Kipling is still strong in the land.

With the governments and the economy of Asia in the hands of a few relatively wealthy people, there is almost no middle class in any city. The district of villas and new apartment houses comes to an end, and the crowded slums begin.

An Asian slum is essentially the same as its American or European counterpart, but with every detail magnified. The streets are narrower and dirtier; the smells are stronger; the noises are louder; the tenements are older; the stairs are steeper; the apartments are smaller, darker, and dingier. And, above all, the entire slum is more crowded. In Bombay, for instance, according to a 1931 census, three-quarters of the population lived in one-room apartments, and over one-third of the population lived six or more to a room. Even the worst of Western slums don't compare with a record like that. And in the past quarter of a century, the crowding of Bombay has undoubtedly grown more intense.

In an Asian slum, children are underfoot everywhere, playing in the street, hanging out of windows, and squatting against the walls. Hawkers and peddlers circulate on the space of the sidewalks that isn't taken up by the temporary booths, owned by the next rank up in the hierarchy of trade. Close to the walls of the buildings men sleep peacefully through the racket, lying on the sidewalk or on charpoys, portable wooden bed-frames with a network of rope to serve as mattress and springs. Inside the apartments the people are crowded like sardines. A room intended sixty years ago for one family may be broken up by flimsy partitions into half a dozen sections. One charcoal stove often must serve the needs of a dozen families, who have to cook in shifts. A tenement is likely to have a few bare electric

light bulbs, but running water, even one spigot for the entire building, is a rarity.

In the midst of this bedlam Asians go about the work of earning their daily rice. Piecework done at home is common in Asian industry, a sort of urbanized cottage industry. Squatting on the floor of their rooms women sew, cut patterns, and paint endless designs on lampshades and fans. Men go through the routine of twisting bits of metal into springs for flashlights, or of stamping out some small part to be used in thermos bottles, or eyeglasses, or radios.

Factory districts, as such, hardly exist in Asia, outside of Japan, Manchuria, and a few cities of India. Japanese factories are sometimes as modern as their American counterparts. Not so the factories of India. A large and ancient jute mill in Calcutta, typical of its industry, is a maze of overhead belts and pulleys. With its clanking machinery, its lack of adequate lighting, and its dust-filled air, it might be a factory out of the England or New England of 130 years ago. The wan faces of the children minding the spinning machines, and the women struggling across the floor with heavy loads of burlap sacking add to the Dickensian atmosphere.

More characteristic of Asia are small workshops, of which there are thousands, mingled with the tenements. Unmarried workers often clean off their workbenches at night and sleep right in the shop. There is no such thing as zoning, and if a shop happens to be noisy, or stinking, or dangerous, so much the worse for the neighbors.

There is a difference of opinion whether Asian city dwellers tend to have a lower rate of fertility than their country cousins. Japan's birth rate, it's true, followed a classical pattern as the country industrialized, dropping first in the cities and only later

in rural areas. In Indian cities, Kingsley Davis, American authority on the population of India and Pakistan, thought the 1941 census figures indicated a slightly lower birth rate than the national average, with bigger differentials in the bigger cities. He showed, however, that the differentials had remained constant for 50 years. In their more recent study, Ansley Coale and Edgar Hoover doubt that a rural-urban fertility differential really exists in India. They think a low-fertility pattern has become established only among "very small groups of urban, highly educated people, constituting a negligible fraction of the population."

Whether there is an urban-rural differential or not, birth rates in Asian cities are high by any world standards. In Bombay, Calcutta, and Madras, they are above 30 per thousand. The level in Singapore, around 47 per thousand, is not only sky-high by urban standards, but would match the birth rate in nearly any village in the world.

In general, the smaller families in cities are found among the Westernized well-to-do. The poor, despite the crowded conditions in which they live, continue to have broods of five, six, and seven children. And the cities of Asia, both by immigration from the country and by natural increase, go right on growing in size.

There is some difference of opinion as to whether life in Asia is healthier in the cities or in the villages. The cities have far superior health facilities and hospitals. To a far greater degree even than in Europe or America doctors congregate in the cities, where life is comfortable. The Western church mission hospitals are almost invariably in cities. City dwellers not only have a better opportunity of receiving treatment for their ills, but an easier time getting inoculated and vaccinated. They also have the protection of city water, treated at the very least

against cholera and typhoid, and such city sewage and sanitary systems as exist.

On the other hand, there are compensations for living in the country. Many villages are so remote that they don't get exposed to some of Asia's great killers. Tuberculosis, for instance, has been an urban disease, although lately it has been spreading into the rural areas and causing havoc among peasants who have never had a chance to build up immunity. More important is the fact that the farmers are close to the food supply. Except in years of drought or floods, they are reasonably sure of getting something to eat. The compensations of town and country balance each other. In Asia generally there seems to be no significant difference between the death rates of the contrasting environments.

Probably the most crowded place in the world today is Hong Kong, the British colony clinging to the south coast of China. The colony consists of a 25-mile-long peninsula jutting out from the mainland, and below it an island about five miles across. On the tip of the peninsula and facing it on the island are a pair of twin cities, Kowloon and Victoria. In them, living in buildings intended to hold at most 600,000 people, 2.5 million human beings are crowded together like so many prunes in their boxes. Tenements have been divided and subdivided into spaces the size of pullman compartments—one family of six or seven people on the floor, and a second family of perhaps four or five on a shelf above them—an "upper berth." Another 250,000 or so persons (no one is sure just how many) live in miserable shacks made of scrap wood and tar paper, thrown up to form villages around the edges of the cities.

The prime cause of the overcrowding is the Communist victory on the mainland. Hong Kong is filled with refugees

from Red China, men and women who undergo the misery of life in refugee camps rather than face the horrors of communism and communes in their native land.

The British and the wealthy Chinese live in comfort in modern homes or apartment houses, many of them high on the lovely hills of Hong Kong Island. The poor live in hovels and ancient tenements, surrounded by dirt, filth, smells, and disease.

In the old days there was free passage across the border between Hong Kong and China. The population of the colony varied with its prosperity. When the Western world and Hong Kong were enjoying good times and jobs were plentiful in the city, coolies flocked into town. When a depression came along, they flocked out again to return to their home villages. There, they knew, life went on at a constant level. As soon as the Communist threat to China became apparent, this ebb and flow came to an end. From 1947 to 1951 the influx of refugees tripled the population of the colony. Since then both the British and the Chinese have set up immigration controls along the border. The Chinese permit only a few refugees to get out, and with very few exceptions no resident of Hong Kong returns to China.

Hong Kong is one of the very few places in Asia outside India, Japan, and China with an organized birth control program. The program is small, consisting of a privately sponsored family planning center, with four clinics. In a city of nearly 2.5 million persons, they treat only a few thousand women each year. As do all family planning centers, the clinics give advice to women worried about sterility as well as to those trying to combat overfertility. In Hong Kong's British community, there is a standing joke to the effect that the clinics are always crowded with Chinese women who want to learn, not how to have fewer children, but how to have more. The joke could hardly be based on slimmer grounds. Actually, 95

per cent of the patients wish to learn how to stop having children. Their desire is understandable, considering that, in crowded Hong Kong, the average number of children of the women visiting the clinics in one recent year was 6.8, and the average monthly income of their families was twenty-five dollars.

Hong Kong's population problem is too overwhelming for any foreseeable solution. A few of the wealthy refugees have been able to emigrate. New industries have soaked up hundreds of the surplus population as workmen, but the number of unemployed is in the tens of thousands. Even in their poverty, most of the Chinese cling to the tradition of large, closely knit families with many children.

If the pressure of population in Hong Kong seems even more intense than that prevailing in the rest of Asia, it is because this last outpost of freedom on the China coast is in a unique position. The amount of its land and resources is frozen at a set level. Yet no matter how great the population pressure grows, few people can leave. The masses must stay and endure their mutual pressure. In a sense, Hong Kong is a microcosm of all Asia. The total amount of land and resources of Asia is many times larger, but it, too, is frozen within certain definite limits. And few Asians can escape from the continent, no matter how great the pressure of population and their own desire to leave. Hong Kong's state of supersaturation may, in fact, be a portent of things to come throughout Asia.

CHAPTER SEVEN

Malthus Revivified

Among our Western ancestors, from the contemporaries of Marco Polo to comparatively recent generations, the storied wealth of the Orient was taken for granted. And, at the time the West "discovered" the East, there was some truth to the stories. Cathay had its golden aspects, and at least some of the Indies were redolent of spices. Asian arts and Asian crafts revealed an opulence that was quickly copied in Europe. Returning travelers told of palaces and feasts, of silks and jewels, of luxuries abounding. But the truth in the stories gradually died out, leaving only the legends.

What happened to alter this glowing picture of the Orient? Today, Asian poverty is a byword. Returning travelers tell of slums and starvation, of dirt and beggars, of general misery. The Orient apparently has retrogressed from riches to rags.

Of course in actuality the rags were always there. Marco Polo and the chroniclers who came after him merely failed to record them, or were so blinded by the gleam of the riches that they failed to notice the conditions of the multitudes. But

today the rags have multiplied, and the riches have all but disappeared. Signs of prosperity in Asia are few. Poverty is endemic to the region. Over the years Asia has suffered a change, a change that has followed the pattern of the grim theory outlined a century and a half ago by Thomas Robert Malthus.

Malthus was a British clergyman with an interest in the problems of economics, and, like any rural vicar of his time, with leisure for reflection. Economists of the British mercantilist school of the seventeenth and eighteenth centuries had been urging a national policy of fostering population growth, in order to provide a cheap supply of labor. This, they said, would raise the productivity of the community and increase the national income. In 1798 Malthus answered their arguments in a short book, *An Essay on the Principle of Population as it Affects the Future Improvement of Society*. The book itself has never been widely read, but the ideas in it have been spread around the world, as much by their enemies as by their supporters.

Malthus' basic principle was that mankind inevitably tends to increase in numbers up to the limit of its food supply. Population, he said, grows according to the rules of multiplication. That is, within a certain number of years any population, unless checked, will double itself. In the next equal term of years it will redouble itself, and it will continue to do so in each succeeding term of years until, for some reason, it is checked. He thought the actual term to be about twenty-five years. The checks which he listed consisted of mass killers, such as war and disease; "vices," such as abortions and infanticide; and measures of "moral self-restraint," such as continence and late marriages.

The food supply may also be increased, he said, but only

according to the rules of addition. That is, within a given term of years the output of food may be increased by a certain amount, but in the next equal term only the same amount again can be added. This regular process of addition continues on into the future.

Thus, he said, population tends to increase by geometric progression, in the manner of the series: 1, 2, 4, 8, 16, 32. The food supply cannot be increased by more than arithmetical progression, such as the series: 8, 12, 16, 20, 24. For a while, the arithmetical jumps may be greater than the geometric. But the size of the geometric jumps keeps growing. No matter how far ahead it starts, therefore, an arithmetical progression can never hope to compete with a geometric progression. For this reason, said Malthus, in the absence of self-restraint famine is the ultimate check on the numbers of mankind.

From the start Malthus' ideas were bitterly contested, especially in his own England. He translated his theory into practical terms by opposing proposals for reform of the British "Poor Laws," designed to grant additional charity to the down and out. He argued that the support of the poor out of the public purse merely encouraged them to have children, who would in their turn increase the demands on the taxpayers. Reformers accused the parson of being inhuman and un-Christian. His supporters argued that the reformers were trying to lead England down the road to starvation.

Malthus' theories quickly spread through the Western world. They probably found their most enthusiastic reception in Germany, where economists not only accepted his central thesis but went on beyond him in urging governmental measures to prevent overpopulation. Influenced by Malthusianism, the governments of the small states of western Germany passed laws restricting marriage to those who could afford it. The marriage rate dropped, but, as might have been expected, the

rate of illegitimate births increased enormously. One German professor even went so far as to recommend that every unmarried man without the means of supporting children should be forcibly equipped with the equivalent of a girdle of chastity. Eventually, the extent of illegitimacy made the marriage restriction laws look ridiculous, and they were dropped.

Events of the nineteenth century turned the minds of the world away from Malthus and his gloomy predictions. Instead of approaching starvation, the Western world prospered. Three developments occurred that he had not foreseen, although two of them were under way in his own time. The first of these was the opening up of the empty lands of the earth to settlement and food production, chiefly in North America and Australia. The world's food supply increased at a tremendous rate. Improvements in the means of transportation enabled surplus food from thousands of miles away to be shipped cheaply to Europe, and allowed surplus Europeans to emigrate cheaply to America.

The second development which was already under way when Malthus wrote his tract was the Industrial Revolution. The growth of industrialization soaked up excess population as its working force. At the same time Europe's productivity increased at a rapid rate. Thus, a century after Malthus wrote his *Essay*, England was able to support a population three times greater than in 1798, and at a far higher level of prosperity.

These two developments affected not only England but the whole world. The countries on both shores of the North Atlantic profited most from the new land and the new industries, but the prosperity spread through Europe and on to Asia. As the populations of Europe and America soared, the people of the European empires in the Far East, as we have seen, began to increase as well.

There is a tendency today to remember only the bleaker

aspects of the nineteenth century—its sweatshops, its slums, and its slave plantations. But on the whole it was one of the most prosperous eras the world has ever seen. Starvation declined. When it did occur, it was usually not because of a lack of food in the world, but because the available transportation was inadequate to distribute local surpluses. In the glow of prosperity, Malthus was forgotten.

The third development which Malthus had not foreseen was a general lowering of the birth rate in the prosperous, industrialized areas of the world. Instead of breeding up to the limit of the food supply, the people of western Europe and North America began to refrain from reproducing. The growth of population in these parts of the world slowed down early in this century to a rate lower than that of the expansion of production of food and manufactured goods. In some areas of Europe population growth slowed to a complete halt, and during the depression of the thirties some European countries even declined in population.

As to exactly why the birth rates in Western countries have dropped, no two experts agree, but the general reasons are known. For a while it was believed that low birth rates were a sign of decadence, and that Western man was somehow losing his fertility—or even his virility. Another theory, which still has some support, is that low birth rates are an effect of the prosperity and the high standards of living which industry and the new lands created. Believers in this idea have suggested that in an age of luxury man feels less need to seek solace in sex. Still another theory has it that the lowering of infant mortality rates has reduced man's drive to insure his own immortality with a large family. But whatever the effect of these factors, three specific developments have had the greatest influence on Western birth rates—the process of industrialization, the growth of the cities, and the development of simple

methods of contraception. It is doubtful whether any one of these alone would have made much of a dent in the birth statistics. Together they have been a powerful force.

Among the ideals of all agricultural civilizations, as we have noted, are the fertile wife and the large family. To a farmer, children are a good investment, insurance against poverty in his old age. To an industrial worker drawing wages, on the other hand, children are a great expense. To him, having a child is equivalent to taking a cut in income. As Sir Charles Galton Darwin, physicist and grandson of the great scientist, has put it, modern European families tend to choose a new car rather than a new baby. Only in extremely prosperous America can families choose both.

Even aside from the economics of industrial life, an urban society doesn't adapt itself to children. In the limited space of a city dwelling place, children are a hindrance. Their food is expensive, and their upkeep enormous. In an urban civilization there is great fluidity among the classes. A man stands a better chance of "getting ahead" if he isn't encumbered with the expense of too many children. At the same time, he can assure one or two children of an education that will help them to achieve a status in life. A brood of six would be very expensive to send through school and college. He might live to see his children forced into a lower class of urban society. The European city dweller's ideal is a family of one or two children, or even of none at all. The prosperous American has moved to the suburbs and reshaped his urban ideals, but even the postwar American "large family" rarely consists of more than four children.

The prejudice of city residents against large families is not a purely modern phenomenon. Many urbanized Greeks and Romans seem to have been even less eager to have children than modern Westerners. To avoid the burden of babies, they

frequently turned to homosexuality and to abortion. As modern Western man began to develop an urban outlook, his industries developed contraceptives, a new convenience for him that saved him from having to resort to the extreme measures of the ancients or to Malthus' "moral self-restraint." Advances in the rubber industry, for instance, enabled manufacturers to supply reasonably effective condoms at a price cheap enough for any industrial worker. Other devices, such as diaphragms, and other techniques of preventing conception, such as the "rhythm method," were developed later, and were accepted as a basic, everyday part of Western life.

There is no physiological change involved in the lowered reproduction rates of the Western world. The change is one of psychology. A Royal Commission on Population, which made an extensive study of population trends in Great Britain in 1947, determined that the practice of contraception by large numbers of persons is the main cause of the fall in the birth rate. If British families did not practice contraception, the Commission reported, there is no reason why British women wouldn't have the same high birth rates as the women of Asia.

It took time for this new outlook on the family to root itself in Western culture. For the first half-century of the Industrial Revolution most of the workers in factories were countrymen, fresh from their villages and keeping a rural outlook on life. In the style of their farmer forebears they continued to produce large broods of children. It was not until the mid-nineteenth century that birth rates in Europe started to drop. They continued to fall until World War II. The new culture pattern even spread out of the cities and into the countryside of Western nations, although for the most part farmers continue to maintain a higher birth rate than their city or even their suburban cousins.

In the Western world, and particularly in America, starva-

tion is so remote a contingency that some economists again consider population growth as desirable for increasing prosperity. Lord Keynes, for instance, while he recognized the danger of overpopulation, believed that a stable, non-expanding population was a factor tending to cause unemployment. Not only do additional people produce more goods, but they consume more, and in doing so spur on the demand for more production.

In France, where governments have worried for nearly a century about the falling birth rate, statesmen today point to the revival of population growth as a sign of the new renaissance of their country. In America, as we have noted, most businessmen believe in a theory exactly opposite to that of Malthus: an increasing population should be welcomed as the source of an expanding market. Even the Department of Commerce has given official recognition to this concept. In the lobby of its Washington building is a device like the mileage meter on an automobile, showing the estimated growth of the population of the United States—one person each eleven seconds. Flanking the device are signs announcing that "more people mean better business."

But in Asia the wolf is back at the door—if it has ever been far away. Malthus' law is once again proving its validity. Through the nineteenth and early twentieth centuries the production from Asia's land, both in the form of food and in raw materials to export in exchange for food, increased as fast as the population, and sometimes even a little faster. In Malthusian terms, the arithmetical jumps of food production were temporarily at least as great as the geometric jumps of the population. But, as we have seen, any geometric progression eventually catches up with and passes any arithmetical progression. In the West, population growth escaped from the Malthusian pattern by slowing down and ceasing to follow a geometric progression. In Asia, populations have acted as Malthus had pre-

dicted. In fact, they have increased at even greater than geometric rates. For the past thirty years the population growth of Asia has been accelerating, and in most countries it has passed and left behind the rate of increase of food production. Throughout the Far East, Malthus' gloomy theory has taken a new lease on life.

The identical Malthusian pattern has been showing up in most countries of Asia, but perhaps its effects can be traced most clearly in Java, the principal island of Indonesia. Until the past few years, Java, like the rest of the East Indies, was considered to be a treasure house of riches. Once upon a time it was. Its soil is rich, and crops grow easily. Stick the end of a sugar cane into the earth and it is likely to sprout. Long after the spices Columbus sought had lost their great value, Java retained the allure of wealth and glamour. For three centuries the island remained a profitable trading ground for the Portuguese, the Dutch, and the British, operating from their trading stations in the major port towns.

It was not until 1816, when the Indies were returned to the Dutch after the Napoleonic Wars, that the Westerners set out systematically to increase the trading surplus which the Javanese villagers had to offer. Dutch soldiers moved out of Batavia (now Djakarta) and pacified the island. Dutch planters, using native labor pressed into service by the Dutch government, cleared the jungle away from the large tracts and set out to grow sugar, coffee, and tea on a commercial scale. The Javanese who were not pressed into service remained in their villages and continued farming on a subsistence basis.

Rarely has a land flourished as Java did. Dutch energy and organization multiplied the produce of the soil many times over. Dutch administration brought peace to the villages, and, as we have noted, a measure of public health.

As the production from the land grew, so did the population.

In 1816 there were estimated to be 4.5 million people on Java. In 1858 their numbers had increased to 11.7 million. But the island was still rich. It produced enough for its people to eat, with an ample surplus beyond that for trade.

The profits, of course, went to the Dutch. But they, in turn, pumped many of their dividends back into the island in improvements—roads, irrigation facilities, railroads, and, later, power plants.

It is difficult to say just when Java reached the height of its prosperity. Perhaps it was at the end of the nineteenth century, when the Dutch administrators first began to worry that 20 million people might be too many for the island of Java to support. They began to consider a scheme they called “transmigration,” involving not souls but bodies. They proposed to move large numbers of Javanese to the uncrowded outer islands of Sumatra and Borneo. But in the next two decades came the discovery of oil on Sumatra and the development of that island as a source of rubber and tin for the growing world market. For the Indies as a whole, the early twentieth century was a prosperous time. Transmigration was forgotten, although Java kept increasing its population.

Since 1930 one trouble after another has struck the islands. The world depression came as a blow to Java and Sumatra because their economies had become so closely linked with the industrial life of the Western world. As the demand fell for oil, rubber, tea, tin, and sugar, thousands of plantation workers lost their jobs and headed back to their ancestral villages. But since the beginning of the century the population of Java had doubled. It numbered 40 million by 1930. Fertile as it is, the island couldn't produce enough food to provide that many inhabitants with an adequate diet. An international survey taken just before World War II showed that the nutrition level

of the Javanese was among the lowest in the world. There was semi-starvation in what had been a Garden of Eden.

The Japanese occupation was a bitter time. Exports were cut off. The jungle grew back over plantations, and mines fell into disrepair. There were no imports of any sort, and the people were reduced to rags. Food production fell, and the dietary level dropped far below the low standards of the thirties. The Allies returned to the islands in 1945 to find the people in pitiable condition—and more of them than ever before.

There has been a tendency in the West in the past few years to blame the unrest and the political instability in Indonesia on the prematurity of the nationalist revolution, which occurred immediately following the war. This is too simple an explanation. Even the capable Dutch—if one were to assume that they could have postponed the inevitable revolution—would have trouble running Indonesia at a profit today. The Indonesians picked an unfortunate time to take over the responsibility for their own future.

It wouldn't be fair to say that there are "too many Indonesians." Indonesia today is a nation of 85 million people whose over-all density on the land of their thousands of islands is only 150 per square mile. More than three-quarters of them, however—some 65 million—are squeezed onto the once happy island of Java. The population density of Java as a whole is about 1,100 to the square mile, or five people to every three acres. In the states of Solo and Jogjakarta, the density rises to more than four persons to each acre. The fertility of Java's soil, obviously, is exceeded by that of its people.

Today, much of Java's food must be imported, but there is little to export in exchange. Guerrillas terrorize the hill country. Communists grow steadily stronger in the cities, on the plantations, and among the growing legions of the youth and the unemployed. Only the force of the army keeps the govern-

ment on an even keel, and maintains the tie between Java and the other, less heavily populated islands.

To an American, familiar with the history of the settling of the frontier in his own country, it may seem inexplicable that the overcrowded Javanese don't voluntarily move to unsettled areas of other islands where they can open up new land for themselves. But there is a serious question as to how large a population such jungle islands as Borneo and Sumatra could actually support. Besides, to a Javanese peasant in his quiet village, life in the wilderness of Borneo looks strange and fearsome. The gulf between the terraced rice paddy and the mysterious jungle is greater than that between the rocky hills of New England and the wide prairies beyond the Mississippi. The Javanese simply lacks the pioneering spirit. Only about thirty thousand Javanese a year moved to less populous islands—and the annual population growth on Java is about one million.

The future looks grim for Indonesia. To maintain itself in power the government has to keep pumping nationalist spirit into the veins of the hungry people—expropriating Dutch businesses and stirring up sentiment for the annexation of "Irian," or West New Guinea. Nor is the government strong enough to promote significant measures of economic development. It has been too timid, for instance, to authorize private oil companies to extend their oil exploration to new areas, although it is badly in need of new sources of revenue, and although it is in no position to develop its own oil resources. The necessity of importing food grows almost yearly. That is understandable, since the population is increasing each year by an estimated 1.5 million people—mostly on Java. It's no wonder that Indonesians listen avidly to the siren song being sung by the propagandists in Peking.

Another somewhat less obvious example of what population

pressure can do to a country is the Philippine Islands. Americans, trained to think of the Philippines as the model democracy of Asia, the showcase of the beneficent colonial policy of the United States, wonder what has been going wrong out there. Suddenly early in 1959, almost overnight, the Filipinos seemed to change from the friendly pro-Americans of the Magsaysay days to sullen types, resentful of American military bases in their country, and talking darkly of "turning their faces to Asia"—which means Red China.

There is no simple answer to why this change has occurred, but a large part of it can be attributed to the failure of the Philippine economy to grow at a rate matching the growth of the population.

The Filipinos have always tended to cluster in the northern and central islands. A census in 1799 listed 1.5 million Christians—which meant the bulk of the population—on Luzon, Cebu, and the other islands in which the Spanish power was felt. That figure was doubled twice in the nineteenth century, and when America took over the Philippines from Spain in 1898, the population of those islands had increased to six million. In the next fifty years American public health measures and American economic development more than tripled the population. The overcrowding today around Manila and on Cebu rivals the worst in all Asia, and it was in the crowded areas that the Communist-inclined "Huks" had their greatest strength after the war. There is a steady trickle of migration to the southern island of Mindanao, but its effect is not enough to relieve the great pressure on the land in the north.

American aid to the Philippines since the war has been the highest per capita aid given to any country in the world. It hasn't been enough, however, to keep the Philippine economy on the upward path. What progress the economy has made has

been eaten up by the rapid growth of population, nibbled away by corruption in the government, or negated by inflation.

Perhaps if we, during our stewardship, had trained Filipinos in the techniques that would help them to sustain their own economy, they might have been able to accomplish more in these past few years. Instead, we concentrated on training them to run their own governmental affairs in a democratic way. We taught them comparatively little engineering and comparatively little agronomy, but lots of civics, government, political science, parliamentary rules, rhetoric, and debating. The nation we have succeeded in producing, while it is governed democratically, seems to be populated by lawyers and politicians.

A disturbing element in the outlook for the future of the Philippines is that many of these very politicians we educated have turned to ultra-nationalism to make the voters forget their hunger. Even more alarming, some Filipino leaders have begun to look favorably on communism as a possible cure for the economic difficulties which population pressure has brought to their islands.

Most Asian leaders are aware that their countries are engaged in a life-or-death race—production of food versus production of babies. In every country planners are laying out blueprints of methods to increase food production in the years and the decades ahead. On the whole, the former colonial countries haven't done badly since they gained their freedom. Most of them have repaired the damage done to their production standards during World War II and the revolutionary years that followed.

But what many of these same Asian leaders seem to fail to perceive is that the food versus babies race isn't fair competition; the race has been fixed in advance in favor of the babies.

In fact, it isn't a race track the Asians are running on, but a treadmill. The farther ahead they are able to force food production, the faster the babies are likely to arrive.

As we have seen, there is an escape from this Malthusian treadmill. The West has escaped. Japan, with its industrialization and its birth control campaign, seems to have escaped. What will happen to the rest of Asia remains one of the great questions of our times.

If experience is any guide, three elements seem to be indispensable to any country that wishes to jump off the treadmill:

First, although a quick and decisive victory is unlikely in the race between food production and population growth, a country's food supply must be steadily stepped up at a rate which at least matches the population increase.

Second, there must be a shift away from total reliance on the land, and toward industrialization and urbanization.

Third, there must be a decisive drop in the birth rate, which, in turn, cannot occur until people *want* fewer children and take steps to avoid having babies.

Aside from Japan, the leaders of only one country in Asia are taking vigorous steps to meet these three requirements. That country is Red China. As a result, China appears to have the best chance of emerging from the Malthusian dilemma.

The leaders of one other country, India, are making a valiant effort to meet the first and second requirements. They also have recognized the danger of the population explosion within their borders, but they seem unwilling to take more than token action.

Leaders of other Asian countries are virtually ignoring the paradox involved in stepping up food production without attempting to halt the increase of population. In their national plans most of them pay lip service to industrialization, but there

is serious doubt whether it is even possible to relieve the dependence of their economies on the land.

Let us, in the next three chapters, examine more closely the possibilities for the Asian countries in each of these three directions—more food, more industry, and fewer babies.

CHAPTER EIGHT

Asians and the Land

Champur is a small village in the heart of the rural state of Mysore in central India, just one of the 500,000 farm villages in India, and of another million or so in the rest of Asia. But Champor is a village with a difference; it has been touched by progress.

As a part of the Indian government's Village Development Program, two Americans trained in agricultural extension work were assigned to Mysore. Obviously they couldn't lay out development plans for every village, but they could, and did, establish a school in which young Indian farm boys could themselves learn to be farm extension workers. One of the early graduates of their school returned to his home in Champor to teach his neighbors what he had learned.

Champur shows the effects of an American influence. Its one mud street is like the main street of any other village, but beside it are unusual signs of sanitation—"soak pits" for cow dung; compost heaps; and even a few latrines. Running around on the street are healthy-looking chickens, descendants of

American Brown Leghorns cross-bred with the runty village variety. The hens lay more eggs than the villagers have ever seen before. The women of the village have started to take up home industries, especially soapmaking. And out in the fields which surround the village, on a set of demonstration plots, a few young farmers are showing their neighbors what can be done with the Japanese method of rice cultivation—a careful process of seed selection, land fertilization, irrigation, and transplanting that has been known to double the production of rice on a given plot of land.

Americans can be proud of what their representatives have accomplished, without benefit of publicity, in helping Asians in their fight to wrest greater productivity from the soil. Every year signs of the same sort of progress which Champor is enjoying can be seen in new Asian villages. Progress means more food, more produce from the land.

But if Champor represents the plus side of the ledger, it also represents the debit side—the red ink, and the difficulties involved in changing red entries to black.

Take, for example, the demonstration plots of rice culture. Even if the enthusiastic young farmers do succeed in doubling their own production, this will not mean that they have sold their neighbors on the new method. The Asian farmer is a slow learner. Like most peasants, he is a conservative. The farmers in Champor have proven to be as skeptical as any other Asians of the Japanese method, however flashy it may appear to be. What was good enough for Grandfather is good enough for Ram Chandra, the typical Indian villager.

Or take the question of fertilizer. There are cows wandering around Champor—lots of them, scrawny creatures, always in the way as cows seem to be in India. India, in fact, has more cows than any other country in the world. They don't give

very much milk, and they would make pretty stringy beef even if Hindus ever did eat beef. But in a village like Champor they should produce a sure source of fertilizer. The reason they don't is that cow dung is the chief energy source of rural India. There is little wood available around most Indian villages, and less coal. In any village like Champor, flat cakes of cow dung are pasted on the walls of houses to dry. The dried cakes supply fuel to cook with. The young farm agent may start a few soak pits and compost heaps, but if he takes too much manure for his demonstrations, he will rob the village of its only fuel.

The Champor farmer lacks capital to invest in the commercial fertilizer and the special seed which the improved methods of rice culture require. There is so little margin between what he earns and what he must spend to keep alive that his private savings, if any, are minute. The development program has not found a way to protect him from the moneylender, or to convince him that a wedding feast for his daughter is less important than improvements to his land.

To mechanize agriculture in Champor would do the villagers not a whit of good. The purpose of labor-saving machines is to accomplish a certain amount of output with fewer hands than were needed before. But in an Indian village, hands are a commodity already in surplus supply. In Champor, there is slightly more than one human being for each arable acre. Many of the villagers are already unemployed or underemployed.

Despite the many frustrations and handicaps, however, the teacher and the farmers in Champor have done creditably. There are no figures for the village, but it is apparent that its land is producing more than ever before. The same is true of thousands of other Free Asian villages that have been touched by some form of progress.

Farmers throughout India have been aided by the construction of giant new fertilizer plants, by new irrigation schemes,

and by improvements to farm roads. On Formosa, a general redistribution of large landholdings has given the former share-cropping farmers a new incentive to improve the lands they now own. Filipinos have been emigrating from the crowded northern and central islands to open new tracts of land in a fertile valley of southern Mindanao. Burmese and Thai farmers have put back into production rich rice lands which had lain fallow since the difficult days of World War II, and have extended cultivation to some new lands.

And, nearly everywhere in Free Asia, Western assistance has made itself felt to at least a small degree. The American "Point Four" and Mutual Security missions under a succession of various names; the British Commonwealth Colombo Plan; and the several United Nations groups have been active since soon after the war. Their influence, their technological assistance, and their financial grants have meant new wells, new roads, new farming methods, new health standards, new breeding stock, new seeds, and even whole new crops. In any one year in any one country the direct effect of such foreign aid is difficult to detect; over a period of years, its effect has been cumulative.

Of all the increases in food production in Asia, the most highly publicized have been those in Red China. But there is a question just how much of the publicity is true. The only fact on which any two China "experts" in Hong Kong, Tokyo, and Washington will agree is that the level of exaggeration in the news releases issued in Peking is high.

Up through 1957 the Chinese kept their statistics pretty well under control. ECAFE reprinted, without vouching for its validity, the official estimate that grain production had been climbing at an average annual rate of 4.3 per cent—good, but not sensational. Then came 1958, the first year of the "Great Leap Forward." The collective farm system was abandoned, and the farmers were placed under military discipline in the

communes. No sooner were the harvests collected than Peking triumphantly announced that production of most crops had doubled.

But some curious anomalies quickly developed:

Item: Within weeks of the time the tremendous harvest was announced, Peking newspapers began to complain of shortages of food.

Item: In November 1958, with great *éclat*, the abandonment of rice rationing was announced in Canton. A few months later, quietly and without specific mention of Canton, grain rations in all Chinese cities were cut, and cabbage was put on the ration list for the first time.

Item: When specific figures became available, it developed that the largest single reason for the 102 per cent increase among the "grains" was sweet potatoes, which China classes as a grain. They accounted for one-quarter of the total grain production. Chinese peasants have traditionally refused to eat sweet potatoes unless they had absolutely nothing else.

Item: Late in 1958 Peking began to hint that in 1959 it would be the world's leading exporter of rice. Early in 1959, not only did exports of rice through Hong Kong suddenly come to a halt, but so did exports to non-Communist countries of all sorts of other products, including cotton.

Item: Reports began to filter through that peasants were being kept so busy tending back-yard blast furnaces that their crops were going to waste in the fields.

Observers are generally agreed that there is considerable truth in the Chinese claims to success in building dams to prevent floods, and irrigation canals to bring new land under cultivation in the north and west. Peking now claims to have 167 million acres under irrigation. This is half of China's arable land, and is the equivalent of a third of the world total of irrigated land.

Even allowing for exaggeration, such achievements of the Chinese have been truly amazing.

Peking, with its original announcement of the sensational gains brought about by the "Great Leap Forward," secured a notable propaganda victory in Asia and around the world. As the figures were clarified, however, a part of the victory turned to dust. Almost certainly China did increase its agricultural production in 1958, but it might have impressed its neighbors more if it had announced the gains less flamboyantly and more accurately.

Asia as a whole, since World War II, has succeeded in holding its own in the race of food versus babies, and even in gaining a slight edge. The increases in food production have not been steady, because farming depends so heavily on the weather, which, unfortunately, doesn't always improve from year to year. In 1957-58, for instance, throughout India and Southeast Asia, the monsoon rains either came late or failed to come at all. The crop season was generally acknowledged to be a bad one. In early 1959, on the other hand, the weather in India gave prospects of a bumper harvest, while serious floods throughout southern China threatened the heart of the rice-producing area. Naturally, even when bad weather keeps the food production of an Asian country from rising, the population goes right on growing. But the figures of the United Nations Food and Agriculture Organization (FAO) show that in every important category, postwar food production is up. Taking as a base the 1948-52 averages for all Asian countries except mainland China, by the 1956-57 season rice was up by 23 per cent; all other cereals also by 23 per cent; root crops by 30 per cent; pulses (peas, beans, and lentils) by 27 per cent; and sugar by 36 per cent.

Population growth between 1950 and 1957 was probably not more than 11 per cent.

In any case, to consider only postwar figures is to weight the results of the race too heavily on the side of the increase in the output of food. The war itself and its aftermath caused far more economic dislocation throughout Asia than most Westerners realize. Under the Japanese occupation the internal economies of China, the Philippines, Indo-China, Malaya, Indonesia, and Burma went to pot. The war years were followed by the turmoil of the revolutions in Indonesia and Burma, the wars in China, Indo-China, and Korea; the partition of India and Pakistan; the repatriation of three million overseas Japanese to the home islands; and local disturbances of one sort or another in nearly every other country of Asia. It was 1953 before the gross production from the land in Asia equaled its prewar level.

Placed in their proper long-term perspective, then, the crop figures of the late fifties look less impressive. They show that Free Asian food production had climbed by 20 per cent in twenty years, while the population was growing by 30 per cent. It is apparent that Asians today are growing less to eat per capita even than they did during the depths of the world-wide depression of the thirties.

World trade statistics themselves are, to quote a phrase from a recent FAO report, "the most incontrovertible and dramatic evidence of the changed food situation." Before the war, underfed though its people may have been, the Far East was a net exporter of food. In the years 1934-38 the region (excluding mainland China) had an average net annual export of 2.7 million tons of cereals. In 1957, in order to feed their enlarged populations, Free Asian countries imported from outside the region 8.1 million tons of cereals, at the cost of some \$4 billion in precious foreign exchange.

ECAFE's annual economic survey at the end of 1957 summed up the food situation with these depressing words:

In most food importing countries of the region, with the exception of Ceylon and the Philippines, the increase in cereal production since the war has lagged behind population growth. As regards rice exporting countries, civil disturbances in Burma and southern Vietnam have hindered recovery or expansion of rice production and therefore delayed restoration of exports to the prewar level. In Thailand and China (Formosa), where large increases in rice production have taken place, rising domestic consumption (resulting mainly from rapid population growth) has limited the export availabilities of rice to around the prewar level in the case of the former and to less than one quarter of the prewar exports in the case of the latter.

. . . The rise in cereal prices accelerated inflationary trends in these [the importing] countries. The increased imports of cereals required to meet urgent needs and also to build up reserve stocks adversely affected their balance of payments, contributing to serious difficulties in the foreign exchange position and thus impeding economic development.

In short, despite their brave efforts, Asians are barely holding their own. When they do succeed in forging ahead by a step or so, the new mouths among them very quickly "eat up the profits."

To live with such a tenuous balance between food production and population growth would be risky enough in any part of the world. In Asia it is far more dangerous because the living standards are so shockingly low to begin with.

There is less food available per person in the Far East than in any other part of the world. Asia's half of the world's population produces only a quarter of the world's agricultural products. It is evident that by the standards of the rest of the world

there simply is not enough food in the Far East to go around.

Studies made of comparative nutrition standards bear out this conclusion. Since World War II the average American—the best-fed individual in the world—has consumed annually about 1,300 pounds of food, not counting the weight of the water in his annual 250 quarts of milk. The average Indian—admittedly among the worst fed of all Asians—has consumed just one-third as much, 430 pounds. Even the average Japanese, with the best diet in Asia, has taken in only about 820 pounds, or two-thirds of the American level. And most Asians live on diets closer to that of the Indian than to that of the Japanese.

The American diet includes a wide variety of nutritious foods in large amounts—eggs, meat, poultry, fish, fats and oils, citrus fruit and tomatoes, and other fruits and vegetables. Asians—including the Japanese—get more than half their food in the form of cereals—rice or grain. Most of them, in fact, eat more cereals than the average American. But there is little else to the Asian diet beyond this. The Indian average is estimated to be 100 pounds of milk products, 42 pounds of peas and beans, 24 pounds of sugar, 6 pounds of starchy roots, 6 pounds of fats and oils, 4 pounds of meat, 2 pounds of fish, and about 3 eggs.

Food weight is a far less accurate standard by which to judge a diet than energy content, measured in calories. Doctors estimate that an American man of medium build taking part in light physical activity for sixteen hours a day requires about 2,800 calories in his daily diet. The average American gets more than that—about 3,200 calories. Assuming that the average Asian weighs 125 pounds and lives in a warm climate, he needs only 2,600 calories a day for light work. In no country of the Far East does the average per capita intake come anywhere near this level. In Japan—which is not a warm country—the average

is 2,100 calories. In most Asian countries the average runs between 1,600 and 1,900 calories. Many Asians, while they do the heavy work of making a living from the soil, must subsist on the same level of calories—around 1,500—which Hitler assigned to the inmates of his concentration camps. When Americans drop anywhere near the Asian levels of nutrition, it is because they want to lose weight by dieting—a truly luxurious activity in which few Asians would even think of indulging.

By other equally important standards of nutrition, Asian diets fall down just as badly. Doctors estimate that a human's daily ration of proteins should amount to at least 70 grams. Not a single country in the Far East approaches this minimum standard. Doctors also believe that half these proteins should come from animal, rather than vegetable, sources, since the animal proteins have a monopoly on certain important amino acids. No Asian country comes even halfway to this level.

Nor can the human body thrive without supplies of minerals, such as calcium, phosphorus, salt, iron, and iodine, and without the gamut of vitamins. The diseases caused by deficiencies in these "protective" foods are found all over Asia. Beriberi from a lack of vitamin B₁, eye diseases caused by a shortage of vitamin A, goiter from an absence of iodine in the diet, and liver and other diseases caused by a lack of protein are all common. In addition, tuberculosis, yaws, and even leprosy are believed to have direct ties with nutritional deficiencies. Any Asian on a substandard diet is a likely victim of diseases in general, and once sick he has little resistance.

The most ironical phase of Asia's food problem is that all the rice-eating countries of the Far East have the potential to improve the nutritional standards of their people without raising production by one stalk. Before most Asians first sink their chopsticks or their fists into their bowls of gleaming white rice,

they have thrown away one of the most valuable parts of the grain—the brown husk.

Rice is the basic food of all the monsoon lands, the southern three-quarters of Asia. Its cultivation calls for exactly the environment provided by the deltas and valleys—hot climates and an extraordinary amount of moisture. Per acre, rice yields more calories than any other grain—about 70 per cent more than wheat, for instance. Because its culture requires comparatively small amounts of land, and adapts itself to intensive amounts of hand labor, it is the ideal crop for highly populated countries.

Until a century ago rice alone provided the Asians who ate it with a fairly well-balanced diet. Then the Western influence exerted a curious effect. European salesmen introduced into Asia mechanical rice mills that cleaned the grain with great efficiency—too much efficiency. Asians took a liking to the mills, and to the highly polished rice they produced. Once they got the habit they stubbornly refused to give it up. The pearly white grain of the rice is largely composed of carbohydrates, which provide the calories. The husk, which the milling gets rid of, contains little energy, but its inner lining is rich in proteins, minerals and vitamins.

The more remote villagers of Asia, in Laos, for instance, and in parts of Indonesia, still pound their rice with primitive wooden mortars and pestles. These do a slipshod job of removing the husk, and leave the lining untouched. The rice looks brown, but it is loaded with food value. For the past twenty years there have been sporadic attempts to reform the diet of more sophisticated Asians by restoring their taste for “under-milled” rice. None of the attempts has proved successful. India is getting nowhere trying to promote the use of rice parboiled before it is milled. In Japan the government tried issuing under-

milled rice in the regular ration; people took their ration home and repolished it.

The latest try at reforming the eating habits of the people is the introduction of "enriched rice" in the Philippines and Thailand. In certain undernourished sections of the Philippines the sale of enriched rice is compulsory by law. A few grains of the prepared rice, specially coated in a vitamin-rich mixture, are intended to be added to a bowl of ordinary rice before it is boiled. Unfortunately, the enriched rice isn't popular except among Westerners. An American in Bangkok bought a box of the new super-rice to improve the health of her servants. As a demonstration she personally added the proper proportion of the distinctively yellow grains to a pot the cook was about to set on the stove. When she next looked, the cook was going through the rice in the pot, carefully picking out the yellow grains and throwing them away.

If the Asians' fight to increase food production has been difficult in the past few years, it looks as though it will be even more so in the future. In order that their continent can grow more crops, Asia's planners must rely principally on bringing land under cultivation. In the dry countries, such as northern India and West Pakistan, this usually means an investment in irrigation projects. In the countries where rainfall is no problem, it usually means extending cultivation into land that is now jungle. There is hope for some limited progress in both of these directions. In the long run, however, either process of developing new lands seems bound to run into the law of diminishing returns.

The fertile river valleys of Asia have been under cultivation for centuries. Asian farmers long ago learned which lands were the best suited to which crops, and which lands were too poor

to grow any crops at all. Even the marginal land which a Western farmer would ignore is utilized in Asia. Farmers in China and Japan grow crops high on the slopes of mountains, producing rice on fields that are incredibly steep and rocky. Nor is irrigation a new science in Asia. In nearly every dry part of the continent, the art of digging canals and storage basins has been known for hundreds of years. A whole civilization based on irrigation rose in Ceylon, and fell when invaders broke the dams. A part of the Grand Canal from Tientsin to Hangchow is believed to date from the sixth century. Any likely area which the Asians themselves hadn't been able to find a way to irrigate was brought under irrigation during the colonial era by the efforts of European engineers. On the whole, as far as the extension of cultivation is concerned, the cream has long since been skimmed off the bottle. There is milk left, but it has an increasingly bluish tint.

Of all the Free Asian countries, India is counting the most heavily on new irrigation projects to meet the national goals for increased food production. But it is not as though India today were composed entirely of unirrigated land, waiting to be watered. Between the Indians themselves and the nineteenth-century British, 50 million acres, or 15 per cent of the total sown land of the country, had been irrigated by the time India became a republic. Naturally, both the Indians in ancient times and the British engineers in their era chose the most logical and natural spots for dams and the easiest routes for canals. The British invested in irrigation projects only if they were convinced the projects would pay off to the government in increased production surpluses. The potential areas left to be irrigated are the marginal ones which looked as though they wouldn't pay off.

Nevertheless, the government of India is now proceeding on

an intensive program of irrigation works. In fact, if it weren't for the massive program which their neighbors in China have undertaken, the Indians could claim that their irrigation scheme was the greatest the world has ever known. Under its first two Five-Year Plans and planned extensions beyond them to 1971, the Indian government expects to double the amount of land under irrigation, bringing the total to 100 million acres. Eventually the figure could rise to as much as 150 million acres, three-quarters as much as the total amount of land in the world under irrigation when India embarked on its program in 1951.

Most of the current projects under construction are schemes the British wouldn't touch. Either the dams are in difficult locations or the land they will irrigate is of second-rate quality. The law of diminishing returns has already begun to take effect; India is piling capital and labor into irrigation, but the new returns to be expected are almost certain to grow progressively smaller.

The most thorough study of the relationship between food production goals and increases in population in India was made by the Indian Registrar General, R. A. Gopalaswami, in his report on the 1951 national census.

Gopalaswami estimated that the irrigation projects planned during the first three Five-Year Plans will increase India's agricultural output by 12 million tons a year. Other measures will increase the per acre yield from existing land, through application of fertilizer, rotation plans, the Japanese method of rice culture, and greater care and attention to all the processes of cultivation. These measures, he calculated, would increase output by another 12 million tons. But the law of diminishing returns will affect each of these methods. There must come a day when an additional pound of fertilizer, an additional application of rat poison, and a final seeding with the latest hybrid will

not produce an increase in productivity worth the additional cost or the additional labor involved.

Twenty-four million tons of increased productivity sounds immense, but considered against the ever-increasing Indian population, it shrinks. "If the scale of our effort is unprecedented," Gopalaswami remarked, "the magnitude of our growing needs is even more unprecedented." Just to keep up with the growth of population, according to his figures, will require 15 million more tons of production in 1961 than in 1951, and 26 million more tons by 1971. In other words, sometime before 1971 the increase in production will approach a limit, while the needs of the population will continue to grow.

Gopalaswami concluded his estimate on a pessimistic note:

By that time we shall have completed three successive Five-Year Plans, each more difficult than its predecessor, and embarked on the fourth. If, even then, our population is still growing unchecked, what are the prospects of our being able to continue to force the development of agricultural productivity so as to keep pace with it? Of course there will never be a point of time at which it can be said that the last improvement has been effected. But if we draw the moral correctly from the many unmistakable signs which go to show that the law of diminishing returns is in effective operation, we should make up our mind to face the fact that *our effort to keep pace with the unchecked growth of population is bound to fail at some point*. If [this] analysis of the subject . . . is even approximately valid, we should be able to go one step further and *fix this point by saying that it is the time at which our total number reaches and passes 450 million* (about 1969).

Only one element in India's economy has changed since Gopalaswami made his analysis: the speed of the increase of India's population is now estimated by the U.N. to be at a rate which will bring the country to the 450 million point by 1964—five years sooner!

From any point of view India looks overcrowded. Southeast Asia, on the other hand, gives the superficial appearance of having large quantities of excess land that might be brought under cultivation. From an airplane flying over the Indo-Chinese peninsula or over the larger islands, great stretches of land appear to be without human habitation, a vast, unsettled jungle of a shade of green that is usually associated with immense fertility.

Contrary to the general belief in the West, most tropical soils are not naturally fertile. The ability of the soil to produce a lush expanse of green jungle is deceptive. Despite the density of the vegetation, a jungle is a delicate balance between the few organic elements in the soil and the growth, death, and decay of the jungle plants. Once a stretch of jungle is cleared away, the soil quickly breaks down and loses what little fertility it has contained.

Tropical soils are subject to two great destroyers—heat and rain. Separately neither one would necessarily be so harmful; together they strip the earth of its richness. The monsoon rains are not like the usual gentle showers of Europe and America. They fall violently and in torrents. Downfalls of an inch in an hour, or of two inches in a day, are far from unusual during the rainy season in any Southeast Asian country. The tropical weather is unstable. The burning heat of the sun on a cleared field or on the roofs of a town may set up rising currents of warm air which, within half an hour, produce out of nowhere a cloudburst of two or three inches.

Excessive heat plays hob with the organic matter in soils. High temperatures, bacteria, and tropical insects quickly break down the organic humus that forms on top of the earth. In the absence of heavy rains this might be a condition favorable to agriculture. But too much water accumulates on the surface after a rain to be adequately transpired through plants and

evaporated. Much of the water soaks down through the soil and disappears into the ground water. Being warm, it absorbs and leaches away far more of the soluble, fertile elements than does the cold rain water of temperate regions.

The leaching process subjects tropical soils to either of two destructive chemical actions, podsolization or laterization, depending on the mineral contents of the soil and on the prevailing temperature. In the relatively cool highlands of Malaya and Borneo, podsolization reduces soils to white, sandy wastelands, without fertility. The most commonly found soils in Southeast Asia are the red, yellow, and brown clays known as laterites, from the Latin word "later," meaning brick. Completely laterized soil actually has been leached of all its soluble elements, and turns hard when exposed to air. It is absolutely useless for agriculture and can never be reclaimed. It does make excellent building material. The great Khmer temples of Angkor in Cambodia were constructed of laterite blocks faced with sandstone. The laterite has withstood the ravages of seven hundred years better than the facing. The ordinary clays, however, are only partially laterized, although they are always in danger of a continuation of the process. Great stretches of Ceylon, for instance, which once supported a large and thriving population, have over the years been laterized to a point where it is hopeless to plant crops on them.

Neither the podsoles nor the partial laterites make good agricultural land. They will support a rapid and luxuriant growth of weeds, savannah grass, and tropical forest. But when man appears on the scene and destroys that cover with ax and fire, they are exposed to the rain and the sun, and their small degree of fertility breaks down rapidly.

A separate effect of the heavy rains is the erosion of the soil. On any hillside from which the jungle is cleared away the tropical rains soon cause deep gullies and even landslides, bar-

ing the underlying rock. Once the soil is gone, not even the jungle can grow back.

To a certain extent, the highlander's loss by erosion is the lowlander's gain. Some of the most fertile and consequently the most heavily populated regions of Southeast Asia are the deltas of the great river systems—the Red River and the Mekong in Vietnam, the Menam Chao Praya in Thailand, and the Salween and the Irrawaddy in Burma. All these rivers have their sources in the mountains of Tibet or Yunnan, and they rush through the hills toward the sea at a tremendous rate. As they reach the lowlands, however, they slow down. Their banks widen, their courses begin a series of wide, lazy curves, and they split up into a number of separate mouths. The levels of the rivers vary greatly between the rainy and the dry seasons. Especially in the rainy season the tributaries pick up immense loads of silt in their race through the hills. The Irrawaddy, for instance, has about a pound and a half suspended in each cubic yard, compared with about two ounces in a cubic yard of the Hudson or the Rhine. As the rivers near the sea and slow down, they evaporate at an incredible rate. Unable to support the same heavy load of silt, they deposit it along their banks and at their mouths. In flood seasons they leave a layer of silt over wide areas. In the absence of floods, the delta farmers accomplish the same effect with their irrigation canals.

The deltas, therefore, are constantly being enriched with the topsoil of the hills. Their soils, in contrast with the laterites and podsols, are thick and gummy. By comparison with the soils of temperate lands, the delta soils are actually far from fertile. They contain so little lime, so little magnesia, and so little phosphoric acid that, transported to a cooler climate, they would not even be cultivable. But in the hot, damp conditions of tropical agriculture they produce crops almost constantly.

These, therefore, are the areas which have for centuries been the populated centers of Southeast Asia.

Most highly cultivated of all the deltas, and one of the most densely populated areas in the world is the Red River delta in North Vietnam. Over its mucklands the war for Indo-China raged for eight years, before the battle of Dien Bien Phu and a Geneva conference left it in Communist hands. In a triangle with sides 100 miles long live nearly nine million people. The over-all density of the population is nearly two persons to each acre, and in some districts more than five persons live on and support themselves from each acre.

How can people manage to live jammed together so tightly? For one thing, although by Western standards the land is not good, the Tonkinese farmers know how to get the most out of it. They raise two and even three crops of rice a year, using intensive irrigation and fertilization. For another, they are content to exist on an extremely low standard of living, based entirely on cereals and vegetables. As Pierre Gourou, leading expert on the life of the Tonkinese, has expressed it, they "dress in cloth made of vegetable matter, build their houses of vegetable matter, use tools exclusively made of vegetable matter, and, above all, are mainly vegetarian in diet." Such a diet allows many more people to get a living from a square mile of land than one containing a high proportion of animal products.

Aside from the deltas, the most important centers of population in Southeast Asia are the fertile islands, many of which consist of ancient volcanoes. The volcanic ash which has settled on such islands as Java and Bali in Indonesia, and Negros in the Philippines, has enriched the soils to a high degree. In eastern Java, where the volcanoes are still active, farmers settle high on the slopes of the cones to take advantage of the soil, even when they know they are endangering their lives. Each eruption may mean an immediate tragedy, but eventually as the ash set-

ties over the entire region around the volcano, the survivors forget the tragedy in the glow of a new prosperity.

Volcanic ash is light, and the soils of the islands are soft. The danger of erosion raises the possibility that Southeast Asians will soon have less, rather than more, land to farm. Rivers in Java have been found to contain as much as four pounds of silt per cubic yard. Wise farmers on sloping land long ago learned that they had to terrace extensively to protect their soil. The intricate rice terraces of the hills of Bali antedate the Dutch occupation of the Indies by centuries.

A less common type of fertile soil is found on a few coral islands that have been worn down over the years. Cebu, in the central Philippines, used to be an example of such fertility, but overcrowding and poor farming have nearly destroyed its richness. The island is a long, slender one, with a spine of mountains running its entire length. Most of its farms are on steep slopes. Under Spanish rule, through Spanish contact with Central America, the Visayan people of the central islands shifted from a rice culture to a corn culture. Planted to two or even three crops of corn a year, the soil of Cebu has washed away. At the same time, the population has increased until there are nearly three persons for every cultivated acre, one of the highest densities in Asia. The island, once so rich, is now scarred by the deep gullies of erosion. Its aspect is one of poverty and misery.

Over the centuries the fertile islands of Southeast Asia have been completely cleared for cultivation up to the highest slopes of the mountains. The larger islands, however, and the Indo-Chinese peninsula are still more than half covered with jungle. Only the deltas, the seacoasts, and the broader river valleys are under cultivation. Vast expanses of land on Borneo, Mindanao, and New Guinea, and in Laos, Vietnam, Cambodia, Thailand, and Burma are settled only by a few primitive tribes. These are

the lands which the Japanese once hoped to develop as colonies for the glory of the Emperor, and as a spill-over ground for the excess population of the homeland.

It is unwise, however, to put too much hope in these great tracts of monsoon jungle as solutions for the problem of population pressure in Asia. Certainly there are some fertile, empty valleys in which thousands of Asians could profitably move. But there is a question as to the suitability of most of the unsettled lands to support even a moderately dense population.

In all the years of civilization in Southeast Asia—many of them eras of advanced cultures—man has found only one way to subsist in the hills. That is the system of shifting agriculture known in Asian language as “ray” or “ladang.” It is primitive in the extreme, but not even twentieth-century man has discovered a substitute for it.

Wherever one travels in Southeast Asia in the dry seasons one can see thin wisps of smoke rising from the hills. They come from fires which the jungle dwellers have set to burn over small patches of the thick forest. Villages in the jungle are widely separated. They are simple affairs—a few huts set in a forest clearing—and the people in them lead semi-nomadic lives. At the beginning of a planting season the men burn over a section of jungle. Without troubling to remove the stumps of the trees, they plow the land with a carabao and a wooden plow, if they own any livestock, or hoe it with a wooden hoe if they don't. The normal crop they plant is rice, a variety suited to dry farming but yielding only a small harvest. A field is fertile for one season only, or at most two. After that the men must find a new patch to burn over. When the area surrounding a village has been used up, the community must pack up and move to a new site in order to get away from the wasteland. Once burned over, a piece of land is useless until the jungle has had ten to twenty years to grow over it and to restore some

organic matter to the leached soil. A huge area, therefore, is necessary for the support of a very few people.

Besides being infertile, the mountainous jungles are notoriously unhealthy. Some of the prevalent diseases, such as yaws, trachoma, and worms, are results of the insufficient diet, the dirt, and the low standard of living of the mountain people. But the real threat is malaria. Certain of the Southeast Asian anopheles mosquitoes, while just as deadly as their normal, swamp-loving cousins, act in contrary fashion. The females avoid the stagnant ponds and canals of the lowlands and lay their eggs in the clear running streams of the mountains, where the larvae will be shaded from the murderous tropical sun. Lowlanders such as the Tonkinese and the Malays dread the mountains because of the dangers of disease. Annamese peasants who work on plantations in the hills regularly return to their villages in the flat land to spend the night. Doctors making surveys of mountain tribes have found as many as 75 per cent of the members suffering from malaria, and 90 per cent from hookworm.

Modern science could probably wipe out the mosquitoes and the worms and make the mountains safe for humanity, but only at tremendous cost in time, effort, and money. Not even modern science, however, can turn these great expanses of mountainous jungle into peaceful, prosperous farms.

Despite this myriad of difficulties, deserts have been made to bloom before; in many parts of Asia it can happen again. In their determination to expand their food production faster than their production of babies, Asians will undoubtedly find ways to bring new tracts of land under the plow. They will find new valleys whose soil is rich enough to till. They will bring irrigation water to arid plains. It might be instructive to look at the

example of one such project in the past—the Punjab, the broad plain north of Delhi lying among the valleys of the six rivers which come together to form the Indus.

The land of the Punjab is fertile, but rainfall in a large part of the area is limited to between five and fifteen inches a year. In 1880 most of the plain was a dry waste, a desert populated only by nomad tribes of camel and sheep grazers. The British, partially as an investment and partially to relieve the already growing population pressure on other sections of India, set out to develop the desert. By building dams in the Indus Valley, they created one of the world's great irrigation systems. By 1900 their canals covered an area of six million acres. In 1920 the 10 million irrigated acres amounted to the equivalent of the total plowed land in England and Wales. By 1930 the figure had mounted to 12.4 million acres.

During this period the British were colonizing the Punjab with the hungry surplus from other regions. The colonizing system seemed eminently sensible. Each settler got a 25-acre farm to develop for himself. Between 1921 and 1931 alone, a quarter of a million Indians left their homes to settle in the canal area. The Punjab became the breadbasket of India. Thanks to the bountiful production of its soil, India continued to be a net exporter of wheat long after it had ceased to be self-sufficient in rice. "Thus within a few years a wild desert is turned into a highly cultivated county inhabited by a happy, prosperous people, each man owning his plot of land living in more sanitary surroundings than are to be found elsewhere in India," wrote a British official in the 1930's.

But the fertility of the Punjab plain was self-defeating. The population grew at a far faster rate than the rest of India. Most of the colonists were young people passing through their reproductive years. Their babies, with plenty of food to eat, lived to grow up and to raise families of their own. The ample, 25-

acre farms had to be divided among the children of the settlers, and redivided among their children's children. Between the 1931 and the 1941 censuses, the population of the irrigated districts rose by about a third. The surplus of grain for export shrank as the Punjabi themselves ate it up. During the decade of the forties the average surplus was only 5 per cent of the total production of grain.

Within the past few years a completely new situation has arisen in the Punjab—a shortage of food. The scarcity hasn't been caused entirely by population growth, although that has been the most important element. The partition of India in 1947 divided the Punjab in two, and the fighting between Hindus or Sikhs and Moslems was at its worst in the province. By the terms of the partition India got possession of some of the key dams at which the flow of water through the canals is regulated. A bitter dispute has raged ever since as to whether the Indians are cheating the Pakistani out of their fair share of water. Each poor monsoon adds to the shortage. A complete failure of the rains in 1953 reduced the yield of the Pakistani Punjab to about half its normal crop of grain, about 1.5 million tons. Only the gift of a million tons of wheat from the United States saved the once prosperous province from starvation. And such crises have become recurring events.

To add to the troubles of the Punjab, on land where irrigation continues today on both sides of the border, the irrigating water has begun to have a new and devastating side effect. By capillary action it draws up from the subsoil deposits of strong alkalis, which destroy the fertility of the land.

As a result of all these factors, the food shortage in the fertile Punjab has become perennial. Even in normal years West Pakistan now must import large quantities of wheat. The Punjabi have, in fact, acted in accordance with the Malthusian law by breeding up to and beyond the limits of the food supply.

And, it is interesting to note, the food shortage and the unrest among the Punjabi have been important elements in the difficulties which have led Pakistan through political instability and on to authoritarian government.

Again, the race between food and babies seems to be fixed in advance. The harder the Asian people work to get ahead, the tougher grows the job. As long as Asians remain predominantly agricultural people, there is little reason to believe that their birth rates will automatically lower themselves. If Asians are to get off the treadmill, their leaders must turn to industry and must take effective steps to promote birth control.

CHAPTER NINE

Asians and Industry

In the language of the highly nationalistic politics in Asian countries today, "industrialization" is a word charged with much the same sort of semantic overtones that "motherhood" has in America. Nobody is against it.

To educated Asians, and particularly to the economic planners, industry means power. In the modern world, Asians realize, a nation without its own industrial potential is militarily weak. The Japanese recognized this fact of life a century ago, as soon as they came out of their shell of isolation and looked around. It was principally for the sake of power that they industrialized. China, and even pacific India, have somewhat the same outlook today. They have suddenly been thrust into the ranks of the world's leading nations. They feel that they must develop industry to preserve their status.

To educated Asians, and to many who aren't educated, industry means prosperity. It is a source of wealth for individuals who successfully invest their capital, or, in a socialist state, for the government that allocates the investment funds. Industry

means jobs for the surplus population without the employment of additional land. It relieves the dependence of national economies on the soil, and on the export of raw materials. Its most urgent meaning is the chance it offers of a higher standard of living for all the people. Asians don't need to be told that industry increases a country's gross output of goods; that it relieves the drain on a country's foreign exchange; and that, if the goods manufactured are exportable, industry may even bring into a country fresh funds from abroad.

On the other hand, very few Asians equate the industrialization of their economies with what might be its most important result—population stability.

The important question is: Can Asian countries, whatever their motivation, successfully industrialize their economies?

Even if the Asians weren't breeding problems for themselves in the form of population growth, there would still be a sound reason why the national governments should be pushing hard to industrialize. Completely aside from the question of the production of food for subsistence, the economy of Asia is running steadily downhill. In their principal role in world trade as exporters of raw materials and purchasers of manufactured goods, Asians are competing on unequal terms with the industrial West. They need more industries of their own. The population explosion merely adds urgency to this need.

Ever since Vasco da Gama made a handsome fortune on the one shipload of silks, jewels, and spices he brought back to Portugal from the Malabar Coast, Westerners have been profiting by selling the resources of the East to the people of the West. With the exception of Japan's, the economies of Asia have been keyed to the production of raw materials for export. Those Asians who have not been limited to farming on a sub-

sistence basis have mostly been engaged in the cultivation of goods for export—rubber, sugar, or palm oil—or in the extraction of minerals from the earth—tin, manganese, mica, and jewels. Until very recent years, and again with the exception of the Japanese, most Asians have had to depend for manufactured goods on imports from the West.

The main reason for the development of this pattern of trade was the policy of the European colonial powers toward their Asian dependencies. The development of industry was discouraged in every colony. In an age of increasing specialization it seemed reasonable, to the West, that some areas of the world should concentrate on industrializing while others stuck to agriculture. Once the West had a head start, there seemed no reason to Westerners why Asia should begin to industrialize. By holding their empires in leading strings, the Western powers could develop the volume of their own manufactures to a point of efficiency at which unit costs were at their lowest. Therefore, they argued, it actually cost Asians little to ship their raw materials to Europe and to buy back the finished products. The argument still persists. Many European and American industrialists still cannot understand why, when British and French factories operate so efficiently, not only Asians but Australians, Canadians, and Argentinians should be so eager to turn away from their natural bent for producing raw rubber, tin, mutton, wheat, and beef in order to try to build factories of their own.

But if the system seems fair in theory, in practice it proves to be quite unsatisfactory. The raw material exporter usually ends up on the short end. His main problem is the instability of prices. For brief periods, mostly during wars, producers of raw materials around the world have prospered at the expense of the processors of those materials. But wide swings in the price structure of raw materials bring on periods of disastrous

overproduction and glutted markets. These swings affect the producers far more acutely than they do the processors.

Over the years the terms of trade seem to be turning steadily against the producers of raw materials. Since World War II, for example, prices for Asia's main exports have been at depressed levels except during the Korean War, when, briefly, they soared. In merely the one year between mid-1957 and mid-1958, according to a U.N. report issued in 1959, the average export price of raw commodities dropped 10 per cent around the world, while the average price of manufactured goods rose by 1 per cent. As in all the underdeveloped parts of the world, no matter how hard Asians fight to increase their share in the production of the world's raw materials, their share in the consumption of the goods made from those materials tends to go down.

There are a variety of other reasons for the difficulties in which Asian raw material producers find themselves. One is the exhaustion of supplies. Tin miners in Malaya and Indonesia today are mining the "tailings" which they discarded as waste thirty years ago. In northern Burma, the ruby mines of Mogok, source of 95 per cent of the genuine rubies now existing in the world, are nearly exhausted. In the Philippines, the abaca plant, from which comes the famous Manila hemp, has been infected with a virus which has lowered both the quality and the quantity of production. Ironically, the virus only thrives where it has cornstalks and leaves to feed on as well as abaca plants, and it has spread only because of the expansion of corn cultivation through the central and southern islands.

An even more pressing reason for Asia's difficulties is the competition which many Asian raw materials have been meeting from synthetics, produced in the industrial West from coal or oil or other materials. This competition dates back nearly a century to the discovery by the German chemist Adolf Baeyer (the "e" was dropped off for his aspirin pill) of synthetic

indigo. Indigo was a plant that man, since his earliest agricultural years, had cultivated as a dyestuff. In the mid-nineteenth century, Asia had a practical monopoly on the production of the plant which made the world's finest blue dye. A million and a half acres of land, mostly in India, produced an annual crop worth \$42 million. Baeyer's first synthetic was too expensive to compete with the natural product, but chemists continued to work on the chemical process involved, and to improve it. In 1890 the invention of the aniline process of manufacturing the dye reduced the cost of the synthetic to one-quarter that of natural indigo. Over the seventy years since then, indigo plantations have practically disappeared from Asia—and from the earth.

The development of synthetics got its biggest push during World War II, when the West found itself cut off from many raw materials—especially those from Asia. The most important competitor with an Asian resource, synthetic rubber, was of little economic significance before the Japanese overran Southeast Asia. Yet today about half the rubber used in the world is synthetic. The national economies of Malaya, Indonesia, and Ceylon are based on the export of raw rubber. The future of these countries depends to a large extent not on their own efforts but on the willingness of the West to refrain from turning a few more valves in “moth-balled” synthetic plants, or from constructing newer, still more efficient plants.

Another example of a raw material that is in trouble is jute. During the troubled years following the partition of India and Pakistan, the trade between the jute growers of East Pakistan and the primary processors of India was nearly cut off. Burlap bags were in such short supply in the United States that many industries switched to multi-wall paper bags for packaging their goods. By the time jute came back on the market, these industries had made such a large investment in the machinery

necessary to package goods in paper bags that they chose not to switch back to burlap. Jute has never recovered the position it lost.

Rubber and jute are not alone. Hemp must compete with nylon rope and with steel cable. Palm oil has been hit by the shift from the use of soap to the use of detergents. Tin must compete with aluminum. Even tea, in effect, must compete with Coca-Cola.

Asia is not the only part of the world affected by these trends. All the underdeveloped parts of the world face much the same situation. The gap in wealth and power between the rich and the poor nations is not narrowing, but growing wider. Modern words for the old song might be: "The rich get richer, and the poor get children."

Asia is only special because it is so large, so important, so poor to start with, so overpopulated in relation to its resources, and so dangerously close to the powerful Communist empire. The downhill path of the Asian economy is leading to disaster not only for the Asians themselves, but for the West as well. If Asia's economy is to turn upward, it must have a healthy shot of industrialization.

In only one Asian country—Japan—has industry been developed to a point where it plays more than a minority role in the national economy, or where it has an even perceptible effect on national population trends. The fact of Japan's industrialization, however, is accepted by other Asians as testimony that their countries, too, can build industrial economies.

Japan's industrialization was not accomplished by coincidence, but by conscious choice. When the young Emperor Meiji, in a fairly peaceful revolution in 1867, replaced the last of the Tokguawa shoguns as the real ruler of the country, he

drew his support not from the feudal nobles and warriors but from the new commercial class. He and his aides saw immediately that if Japan was to be a power in the world, it would need industry to back up a modern army and navy. The already existing fortunes of the great merchant families and the profits from their new foreign trade were used to finance factories, railroads, power plants and shipyards.

Very much aware of the perils of Western interference in the affairs of an underdeveloped country, the Japanese shied away from foreign loans. Although their country is far from rich in natural resources, they even exported raw materials to get foreign exchange for their industrial revolution. They rapidly developed more industrial production than any other Asian country. Their progress was speeded by World War I, during which Japan enjoyed a sudden and tremendous boom, producing goods that the Western powers were temporarily unable to turn out because of the war emergency. From that time on Japan's industry was on a firm basis, and the country was established as a creditor rather than a debtor nation.

From the start, the Japanese were aware of their need for raw materials to feed their industrial growth. With an eye to the main chance, the government always gave extra financial support and ample credit to industries that might be useful in war—iron and steel, munitions, and chemicals. With remarkable speed, Japan's army and navy achieved their goal of modernization. They quickly took the offensive and scored a string of unbroken successes. The size and wealth of the empire piled up.

In 1875 the Japanese sent a fleet to Korea and forced that country to open its ports to foreign trade, much in the same way that Commodore Perry had operated in Japan twenty-two years earlier. In 1894 they walked over the Chinese in a seven-month war, and received as spoils the fertile island of Formosa.

In 1900 Japanese soldiers gained prestige by taking part in subduing the Boxer Rebellion in China, side by side with European soldiers. By 1904 the Japanese felt strong enough to tackle Russia over the question of influence in Korea and Manchuria. For the first time an Asiatic country defeated one of the great European powers. Japan didn't win as much at the Portsmouth Conference as it had hoped for, but it gained access to the iron ore and coal reserves of Manchuria. In 1931, to consolidate the country's control of those assets, the Japanese Army moved into Manchuria, and set out on the road that was eventually going to lead the nation to defeat.

From the start, also, the industrialization of Japan brought greater productivity in its train. The ancient balance between the carrying capacity of the land and the size of the population was quickly altered. The population—after weathering a series of epidemics imported from the outside world—began to grow. From the 30 million population at the time of Commodore Perry's arrival, Japan grew to 35 million twenty years later in 1873; to some 45 million by 1900; and to 55 million when the first census was taken in 1920. By the time of the attack on Pearl Harbor, there were 73 million Japanese in Japan, and another 3 million distributed around the Empire and the rest of the world.

When the process of industrialization began around 1870, three-quarters of the people were dependent on agriculture for a living. Slowly, farmers' sons and daughters began to leave their homes and move to the expanding cities. By 1900 two-thirds of the Japanese were still classed as belonging to farm families. During the World War I boom, farmers flocked faster than ever to the cities to take jobs in the new factories. In the first census, taken in 1920, barely half of all occupied persons were in agriculture. The proportion dropped below half by 1930. During the dislocation of the economy following World

War II, it climbed back temporarily above half, but it quickly dropped again. A new low percentage of farm employment—41 per cent—was established in 1955.

As the cities grew, the manner of living in Japan shifted from a rural toward an urban pattern. The population increasingly concentrated in the largest cities—those of 100,000 or more. In 1888 the six largest cities in Japan contained 2.4 million people, or 6 per cent of the population. In 1918 the 6.1 million people in those same cities constituted 11 per cent of the population. By 1935 a third of all Japanese lived in communities of more than 30,000. Today the percentage is even higher—nearly 40 per cent. Since 1920 the urban population of Japan has tripled. The exodus from the country to the cities has not stripped the villages; rather the rural population has remained constant.

The first effect of the urbanization of the country was the further acceleration of the growth of the population. As Japan modernized, its citizens began to enjoy better public health and sanitary services. Doctors were trained, and hospitals were built. The death rate fell steadily.

Not until the industrial boom of World War I did the birth rate begin to follow the death rate downward. As might be expected, it fell first and farthest in the urban areas. As the cities swelled in size, the average age of marriage advanced, and the average number of children per family declined. Contraception gained in popularity, and the practice of illegal abortion spread. Birth rates in cities, towns, and villages fell roughly in proportion to the size of the communities.

But the fall in the national birth rate continued to lag behind that of the death rate. In 1920, the birth rate was 36 per thousand and the death rate was 25. In the next ten years the birth rate fell by nearly four points, to around 32 per thousand, but the death rate fell by seven points to 18. By 1940 the birth rate was at 29, and the death rate at 16. In each year the gap between

the two rates indicates the measure of the country's natural population increase. Before World War II the gap remained relatively constant between 10 and 15 per thousand, which means a natural increase of 1 to 1.5 per cent annually. That rate of increase was far from high, compared with growth rates in most other Asian countries today. But, extended over the years, it brought Japan from a population of 55 million in 1920 to 64 million in 1930, and to 71 million in 1940.

The prewar government would have liked to see the population increase still faster. Starting in 1936, the militaristic regime tried to stimulate the birth rate in order to assure the country of a large supply of soldiers in the years to come. But not even laws against abortion and contraception, and rewards and tax rebates for large families could overcome the trend.

In the early years of World War II, prosperity and a system of regular furloughs for married men kept the birth rate from dropping. Toward the end of the war, with 7 million men mobilized into the armed forces, the rate fell precipitously. In 1945 the Empire collapsed. The soldiers plus 3 million civilians were returned to the home islands from their stations and homes in Korea, Manchuria, China, Formosa, Southeast Asia, and the Pacific islands. Japan enjoyed a "baby boom" as spectacular as anything seen in the West. The birth rate, which is estimated to have dropped to 23 per thousand in the last year of the war, shot up above 33, and remained there through 1949. In two years, the population total soared by 3.6 million. It looked inevitable that the Japanese were going to breed their way to the 100 million mark by 1960, and continue on from there.

But once the postwar fever was over, the birth rate quickly turned back to its downhill course. Between 1948 and 1955 there was a dramatic fall of 42 per cent in the birth rate, from 33 per thousand to 19, the steepest drop any national birth

rate is ever known to have taken. Japan's entire outlook for the future was changed.

A part of the reason for this sudden drop was the passage by the Diet in 1948 of a National Eugenic Law. This was not, at least openly, a measure to reduce population growth, although many of its supporters hoped it would have that effect. It provided for an extension of contraceptive facilities at health centers; it legalized abortion for reasons of maternal health; and it legalized sterilization in families in which the mother had had too many children for her health. It was amended in 1949 to permit a woman to claim her family's low economic status as a valid reason for an abortion.

But far more important than any law was the frame of mind of the Japanese people. Their attitude toward children had shifted from that of the traditional agricultural society to one more in line with economic realities. This new attitude recognized the lack of additional land, the limited opportunities for children, the major expenditures necessary for rearing children, and the increased burdens which children imposed on the family. The Eugenic Law certainly indicated to the people that their government was attuned to their feelings. But the drop in the birth rate that followed passage of the law cannot be taken as an indication that birth rates can be limited by legislation.

The Japanese turned both to contraception and to abortion to try to accomplish their new ideal of small families. It is difficult to be sure which method of family limitation was of more significance. The firm ethical line drawn between contraception and abortion in Western minds doesn't exist in Japan. In the early postwar days, the same printed character used in advertisements in the mass-circulation women's magazines to signify "birth limitation" meant both "contraception" and "abortion." It is estimated that in 1953 there were around two

million abortions performed in Japan, only half of which were officially reported. Abortions in industrial and government clinics are commonly performed today for less than one dollar, and in one factory clinic the standard charge is fifteen yen—five cents. But even despite the lack of moral bias against abortion, the Japanese seem now to be relying more on contraception.

The trend toward family limitation did not stop at the city lines. In even the most remote villages, too, birth rates tumbled. "This is not," in the words of Dr. Irene B. Taeuber, who has made an intensive study of the population of Japan, "the response of an agrarian society in the initial period of its social and economic modernization. It is the response of a literate people who have radios and electric lights, who live in a country with a network of transportation and communication facilities, and who work in major part in activities other than agriculture."

Meanwhile, the death rate in Japan also continued its drop. Part of the credit goes to the public health and sanitation efforts of the American occupying forces. But essentially the advances Japan has made have been due to its own national health and medical activities. Despite the modernization of its economy, the level of per capita income, the living standards, and the standards of nutrition are still low by advanced Western criteria. It is, in fact, amazing that the Japanese have been able to bring their death rate down into the same range as the rates of the richest Western countries. For 1955 the official Japanese figure was 7.8 deaths per thousand.

It is obvious that there is still a gap between the death rate, which is below 10, and the declining birth rate, which is now close to 17. The population of Japan is still climbing at a rate which is not far below 1 per cent a year. However, the important aspect of the situation is that this population growth is under control. There is only one direction which the rate of growth can take—down! Death rates cannot go much lower;

birth rates are steadily descending. If the birth rates stay lower than 17 for a generation, the population will be stabilized at about 100 million, assuming no major changes in national attitudes.

In the meantime, the population growth can be more than matched by the developing productivity of Japanese industry. Industrial production has been climbing steadily since the war, and has reached a level more than twice as high as its 1934-36 average. Both national income and per capita income, while low by Western standards, have reached new heights. The Japanese economy has its problems—chief of which is the growing shortage of natural resources in relation to the existing size of the population—but the population explosion itself is no longer one of the most pressing among them.

What does a country need in order to industrialize? First, it needs supplies of certain basic natural resources, particularly iron ore. Second, it needs sources of energy—coal, oil, or water power. Third, it needs trained personnel for management, for engineering positions, and for technical jobs. Fourth, it needs capital. And finally, it needs the will to industrialize. In all of Asia outside Japan, only two countries, India and China, seem to have the necessary prerequisites for an industrial economy.

Both India and China have had at least a small amount of industrial production for more than half a century, since British entrepreneurs found they could produce cloth more efficiently with cheap Asian labor in Bombay or Mukden than they could in Manchester. After the Russo-Japanese War, Japanese capital became more and more important in Manchuria, and in the thirties the conquerors of the province built up a heavy armaments industry, to which the Chinese Reds fell heir after World

War II. In India, wealthy Indians themselves began early in the century to invest their money in industry rather than in land. It took World War I to make the British let the bars down against heavy industry in India, but those four years saw the birth of the Tata steel mills and locomotive works, now a huge industrial complex. During World War II Indian industrial development enjoyed another boom. Although both India and China have had going industrial concerns, however, in neither country has industry amounted to more than a fraction of the total national economy.

Almost alone in Asia, India and China have large and nearly untapped reserves of iron ore. Supplies of alloy metals which they need for developing steel industries are either present within their borders or easily available from other Asian countries.

On energy sources the situation is somewhat different. The Asian countries, with the exception of Japan, bring up the tail of the parade in the world's consumption of energy. Where the average American consumes the equivalent of nearly nine tons of coal a year, and the western European about three tons, the average Asian burns the equivalent of only 120 pounds, mostly in the form of farm wastes. Asia, however, has been estimated to have at least a third of the world's coal reserves, three-fourths of them being in China. India has far less coal, but enough for its needs. Both countries are counting heavily on hydroelectric power to supply energy for their industrial expansion, although the building of the necessary huge dams is a great strain on capital resources. China regularly announces large oil discoveries, many of them supposedly made by explorers with primitive water-drilling equipment. Western oil men are somewhat skeptical of these claims.

Trained personnel is certainly in short supply in each country, but mechanics and even engineers can be trained surprisingly

fast in an emergency. Both China and India are calling on foreigners for help in training a managerial class—China on Russians, and India on a wide variety of foreigners ranging from Russians through Germans to Americans.

Both countries have the will to industrialize. In each capital, New Delhi and Peking, the planners have drawn blueprints calling for greatly increased amounts of industrial production, with crash programs for the immediate future and long-range plans that rival the industrial strength of the Western nations.

It is mainly in respect to capital, and the formation of new capital, that China and India find themselves in different positions. Both are short of capital, but China, through its dictatorial methods, is forming capital at a far faster rate than India. India, preserving the forms of democracy, finds itself unable to accumulate great amounts of savings from inside the country, despite its greatest efforts. Because there are no great opportunities for foreign investors to put their capital profitably to work in India, and because of the government's announced intention of working toward socialism as a goal, India has trouble attracting private capital from outside the country. The amount of public capital available either for loans or for grants in aid is limited.

Communist China, on the other hand, is forcing the creation of capital within its borders. It isn't depending on foreign aid; it is even believed to be repaying the loans it secured from the Soviet Union in the early years of the regime. Such new imports of machinery, capital goods, and weapons as it requires from the Soviet, it is buying outright, paying in food and raw materials. It matters little to the Communist rulers of China if their people go hungry. Hunger, discomfort, and long hours of work are part of the price the people of China are expected to pay today in order that their country may be a great industrial power the day after tomorrow.

Many Westerners doubt if China is industrializing in a very efficient manner. The hundreds of small, homemade, earthen blast furnaces reported by so many observers probably don't produce a very good grade of iron. But the wonder is that iron is created where there was no iron before. During 1958, Chinese peasants, working part time on their "anthill" blast furnaces of a design known in Europe in the Middle Ages, apparently doubled China's production of iron. Like it or not, the Chinese seem to have found a way to form new capital—human bodies—and to use this capital to industrialize their country.

This isn't to say that India is standing still. It is basing its industrialization on the Western type of large, integrated complexes of iron- and steelworks, erected with American, British, German, and Russian help. Some observers believe its methods are more rational than those of the Chinese. Between 1952 and 1957, India increased its gross industrial production by about 30 per cent. But during the same period, at least according to figures issued in Peking, Chinese industrial production doubled. Even if the Chinese figures should be taken with a grain of salt, it is apparent that China is pulling ahead of India in the race toward industrialization.

In nearly every one of the world's underdeveloped countries, capital is in short supply. The high rate of population growth is a drag on the process of forming capital. In very general terms, the new capital which a country creates is the margin between what its people produce and what they consume. Every addition to the population means more of an increase in consumption than in production. Therefore, it bites into the margin that represents capital—a margin that is slender enough to start with. It has been estimated that each year the world requires \$10 billion just to maintain its 50 million new additional citizens at a bare subsistence level.

If either China or India can control its population growth, it will stand an improved chance of industrializing successfully. Industrialization, on the other hand, can't be counted on by itself to decrease the rate of population growth. In the experience of every country that has industrialized, the first impact of factories, urbanization, and industrial prosperity is a marked increase in the rate of population growth. If, while they go through the process of industrializing, China and India let nature take its course, they are almost certain to find that for years their death rates fall faster than their birth rates.

From the time Commodore Perry arrived in Japan and the population began to grow, it was a full century before the birth rates and the death rates were once again in balance, and the population problem approached stabilization. China and India don't have a century to wait. Population pressure in each country is already too great. The question is: Can China or India accomplish in a quarter of a century what Japan has done in a century?

And what of the rest of Asia? Does it stand a chance to industrialize? The answer seems clearly to be, "No." Every other Asian country has all the problems of China and India without the size, the industrial foundation, or the wide range of natural resources of those two. Certainly, each country can wisely and profitably invest in light industry to balance its particular form of agricultural output—jute mills, textile factories, paper and pulp mills, and various sorts of food-processing plants. But no other area of Asia is in a position to build the heavy industries on which real industrialization depends. You can't base an industrial complex on the oil of Sumatra, the rubber of Malaya, or the jute of Pakistan. When countries such as these do invest their slim supplies of capital in heavy industry, they merely establish uneconomic monuments to nationalism.

Unable to industrialize themselves, the smaller Asian countries

will be forced to play the game of follow-the-leader. If the leader shows them ways to increase food production, they will increase food production. If the leader shows them it is healthy to limit population growth, and sets the style of family planning, they will tend to follow its pattern. If the leader is governed democratically, they will be likely to match their systems to its system. But if the leader is a Communist country, they can't be expected to remain free.

And who will be the leader—China or India?

CHAPTER TEN

Asians and Birth Control

When the sun goes down on an Asian village, the people are left in darkness. They have no books, no movies, no television. There is only one thing to do—go to bed. There they find their sole source of recreation and amusement, their brief escape from the hours of hard work during the day. At the root of Asia's problem of population is copulation. It has been suggested that if electric lights could be introduced into every village in Asia the birth rate would immediately drop by 10 per cent.

There are, of course, more effective contraceptive devices than the light bulb. For half a century the Western world has been developing ways and means for couples to indulge in the needs or the pleasures of sex while limiting the number of their offspring. Birth control, or "family planning," is an accepted part of Western culture. It would seem possible that some of these Western devices or systems could be introduced into Asia as a means of lowering the birth rate.

In fact, in the great cities of India and Southeast Asia it is

common to see contraceptives on display in the show windows of drugstores. The English-language newspapers, read by the educated minority, run advertisements for all types of such devices. Young Asian couples of Western educational background are in the same position as educated white-collar workers the world over; prices have been climbing, salaries have not, and children have become an expensive luxury. But these civil servants, army officers, and intellectuals are an infinitesimal minority. From the point of view of eugenics, it is unfortunate that the only group to set a limit on its reproduction is that section of society which has had the ambition and the intelligence to rise above the village level.

For the nine-tenths of all Asians who live on or near the land, the problem of birth control is doubly complex. Even if they did want to cut down the size of their families, they would have difficulty finding a practicable technique to use.

Picture the home life of an Asian farmer and his wife. They live in a cabin built of bamboo with a palm-leaf roof, or in a mud hut. They are crowded into one or at most two rooms, probably with the parents of one of them, a few brothers and sisters, and their own young children. They have no such thing as privacy. Every phase of their lives, even their love-making, is at least semi-public.

Dirt is an ever-present problem. The use of a dirty contraceptive device is likely to cause serious infection and illness, but Asian villagers have only rudimentary habits of personal hygiene. A welfare worker making her rounds in one of the family-planning experimental villages in India found a baby using its mother's diaphragm as a teething ring and punching neat little holes in it. The mother explained that she had no clean cupboard or shelf out of the baby's reach in which to keep the device.

Asian villagers are intensely poor. The amount of cash that

passes through the farmer's hands in a year is almost certainly less than fifty dollars. Even a contraceptive device costing only pennies seems to a family of this income level to be too expensive to afford. The use of many of the safest and surest of the devices requires a measure of education and skill which they lack.

But above and beyond the practical difficulties in the way of the introduction of birth control in Asia there is the ideological opposition. Westerners adopted the practice of contraception only after they had become urbanized and industrialized, and when they wanted smaller families. For the most part, Asians have no such forces acting on them. Despite the overcrowding of their lands, they feel that their way of life continues to call for large broods of children.

A second factor in the Western movement to family planning was the emancipation of women. The same years that saw the spread of contraceptive practices saw women attain property rights, assure themselves of the freedom of divorce, win the vote, and even enter into business on relatively equal terms with men. Western wives began to recognize the advantages of a planned family from the aspect of maternal health. They refused to remain eternally pregnant; birth control provided their escape. In Asia women have not emerged in the same fashion. In most Asian countries the woman's status is nowhere near equal to that of her husband; in some she remains little better than his slave. She is respected chiefly for her fertility. Her responsibilities are limited to the kitchen and the nursery. Neither she nor her husband thinks of her health or her happiness in terms of fewer children.

It is a mistake to consider Asia as composed of a great mass of women in misery, waiting for the touchstone of birth control to free them. They may have a sort of mute desire for a break in the chain of pregnancies, but most of them would very likely

be shocked by the idea of contraception. According to a widely repeated story in India, two women were observed looking at a poster erected by the local Family Planning Association. The poster graphically showed a contrast between two women, one clean and smiling with two fat, healthy children at her knee; the other tired, listless, and worn, surrounded by a brood of six thin, undernourished offspring. The onlookers were unable to read the legend printed on the poster, but they were discussing the meaning of the pictures. "Ah, I understand," said one. "This lucky woman on the right has three sons and some daughters to delight her old age, while this poor woman on the left has only one son and an insignificant daughter to preserve the name of her husband."

Ironically, one of the first effects of any general emancipation of women in India would almost certainly be an increase in the birth rate because of the remarriage of widows. In ancient India a widow was expected to throw herself on her husband's funeral pyre. The British wiped out this practice of "suttee," but the taboo on the remarriage of widows, however young and attractive, has remained in force. Were this taboo to be removed, thousands of nubile young women would regain the chance to form families. Their fertility, according to a 1959 estimate of U.N. demographers, would have a perceptible effect on the birth rate of India.

Outside of India, China, and Japan, Asian governments have been lukewarm toward the idea of population limitation. The authoritarian government which seized control of Pakistan in 1958 proclaimed a policy aimed at checking the high birth rate, but its moves to translate that policy into action have been only nominal. In Ceylon, Formosa, Hong Kong, and Singapore, the governments lend some support to family planning activities,

although, as a U.N. survey noted in 1959, they don't take the lead in promoting measures. Malaya and Thailand permit family planning activities, which are hardly significant statistically, to be carried on with private support.

From the organized religions of Asia birth control does not meet the opposition that it does from orthodoxy in the West. Buddhism takes no stand on the subject, one way or another. The leader of the largest Moslem congregation in Pakistan, the Imam of the Badshahi Mosque in Lahore, has stated that he believes in birth control for the people of his country. He has said that Islam would stand behind any family planning campaign. The Hindu approach to the problem is complex. There is a theological urgency for a young boy and a young girl to secure their line with offspring—and especially with male offspring—before they die. This is the principle behind the child marriages for which India is famous. Physical love is one of the bases on which the Hindu religion is founded. The god Krishna, for instance, the intimate details of whose love affair with the goddess Lakshmi are recorded in legends, is worshiped for his sexual potency. Ancient Hindu religious texts celebrate the joys of sexual intercourse. However, these same ancient texts also suggest various mystic methods by which worshipers can emulate the activities of Krishna and Lakshmi without conceiving unwanted children. As a result, no two Hindu priests agree on an exact dogma to adopt toward birth control. There is scattered opposition to family planning from orthodox quarters, but it is neither strong nor general.

A factor in the culture of India of equal importance with religion in its effect on the birth rate is the custom of early marriages. "Child marriage" has been officially banned by law since India gained its freedom, but in remote villages, the ancient customs are still practiced. And even if nine- and ten-year-old girls are not married off with the frequency they used to be, a

common age for brides in India today is fifteen. A girl married at fifteen has ten more years of fertility during her married life than a girl married at twenty-five. There seems to be little that can be done to change the custom of early marriage, which is deeply engrained in tradition.

Among the Chinese, the tradition of the veneration of ancestors used to be a bar to the introduction of birth control. For 2,500 years every Chinese man attempted to father as many children as possible in order to insure that he, in his turn, would be venerated as he himself venerated his own forebears. From a eugenic point of view the pattern was ideal; the men who were intelligent enough and able enough to become successful could afford more wives, more concubines, and more children than the unsuccessful, and thus they perpetuated their qualities of leadership.

Today, however, the ancient customs of China have been completely broken down by the Communists, and, except in Formosa, the customs seem also to be losing their hold on the overseas Chinese. The Communists have radically altered the Chinese family system to suit their own ends, and the children in a commune are being taught to venerate, not their parents, but the all-powerful state. The Communists today find custom no bar to the introduction of birth control; the only question is whether the Party chooses to press the issue home.

In Formosa, on the other hand, the government has strong political and military motives for encouraging the increase of the Chinese population. Formosa is not what could be called a likely site for any large-scale birth control campaign—at least as long as Chiang Kai-shek has hopes of building the strength of his army.

The Chinese in Southeast Asia, cut off from their homeland, tend today to adopt either Western customs or the customs of their adopted nations. There is no strong religious force among

overseas Chinese. There would certainly be no organized opposition to birth control in the many separate Chinese communities around the world.

Among the Southeast Asians themselves, while there is no organized religious opposition to birth control, there tends to be resistance to the idea on what might be called nationalistic grounds. People tend to equate population growth with prosperity and national strength, and to resist any measure which they think would, by limiting the population, weaken the country. An Indonesian government health official—a woman doctor, as it happens—returned a few years ago from a refresher course at a Western medical school, determined to do something to improve the status of the health of the women in her country. The introduction of contraception, where it was necessary for reasons of maternal health, was only a part of her plan. Yet she soon found herself the target of a violent newspaper attack, and of public criticism. She was charged with trying to reimpose Western imperialism by the devious method of stopping the Indonesian population from growing. She was forced to abandon her entire campaign. She did, however, notice one curious aspect of the opposition: middle-class women, no matter how fiercely they might attack the idea of birth control for the peasants, were eager to learn from her how they, themselves, could limit the size of their families.

In the Roman Catholic areas of Asia—the Philippines, certain sections of Indo-China, and parts of Kerala State in southern India—opposition to birth control is, of course, strong. But Catholics represent only a tiny fraction of the total population of Asia. The chief effect of the Catholic attitude toward contraception is felt only indirectly. The family planning movement in Asia gets its chief support from the West, but because of the Catholic influence this support has never been officially given on a governmental level. In 1949, for instance, a report on

Japanese resources issued by the United States military headquarters in occupied Japan concluded with a statement that the problem created by reduced death rates could hardly be solved humanely except through reduced birth rates. The political pressure of American Catholic organizations quickly forced General MacArthur to retract the report and order the offending sentences deleted. The strongly Catholic countries have pointedly threatened to withdraw from the U. N. World Health Organization if that body should even consider an official stand favoring contraception. WHO, therefore, has played only a minor role in the spread of birth control education in Asia.

The question of what contraceptive technique is the most fitting and proper, the most efficient, and the best adapted to Asian needs is one that has not been clearly settled. In India, in particular, the subject of technique has been thoroughly discussed. India's leaders, in considering the population problem of their country, aren't so much worried about *who* is to bell the cat as about *how*.

Most of the leaders of India agree in principle that the population of their country should be limited. Mahatma Gandhi himself said repeatedly that the level of the population was too high, either for the actual state of the economy or for his ideal, non-industrial state. "Perhaps," he said once in a jocular mood in answer to a question about the population problem "we need some good epidemics." And on several occasions, Nehru has commented that India would be better off with fewer people.

But Gandhi thought the only moral method of limiting population was by national self-control. He believed that every Indian should limit the size of his family by complete abstinence

from marital relations after the fourth child of the family is born. Any other method of family limitations, according to his teaching, means giving in to worldly temptation, which constitutes a subversion of the spirit. In effect, his family planning program was comparable to that of the Roman Catholics, although in his eyes the immorality involved in any system of contraception doesn't concern the unborn child but reflects the spiritual weakness of the father.

As in so many fields, Gandhi's ideas live after him in India, even when those ideas run counter to the main stream of events. Nehru in 1952, for instance, told an international Planned Parenthood conference in Bombay that he was convinced it would be "desirable to limit the growth of India's population by proper methods," but he went on to imply that he thought self-control was a better method than birth control. Another strong follower of Gandhi's theory was the first health minister of the Republic, a strong-minded lady named Rajkumari Amrit Kaur.

The government Planning Commission in 1951 appointed a committee of experts to advise it on a program for population control. Most of the medical experts on the committee doubted that Gandhian self-control was a practical form of family limitation. Some of them believed in the efficacy of one device; some in that of another. A good many believed that a search should be made for a mechanism less expensive than condoms, such as a cheap chemical contraceptive, or some simple device that Indian villagers could make for themselves at home. But Rajkumari Amrit Kaur had the power of veto over all their recommendations.

The committee and the Ministry of Health finally agreed on a system which seemed to combine elements of all systems—the rhythm method. The rhythm method makes use of the regularity of the female fertility cycle, which limits to a few days

each month the time during which a woman can conceive. It seemed a somewhat complicated system to teach to uneducated villagers, who couldn't be expected to remember which days were "safe." But it had the advantages of being cheap, and of requiring a certain amount of self-restraint. In 1952 the government used part of its allocated funds to authorize a field experiment to determine whether the rhythm method would work in India.

The government originally asked the World Health Organization for assistance in setting up the experiment. The fact that the experiment dealt with the rhythm method, the only system of birth control condoned by the Catholic Church, induced the Catholic countries in the U.N. to withdraw their active opposition to participation. In the end, WHO paid the expense of two American workers from the Planned Parenthood Federation to organize the experiment and to get it under way.

The experiment, which was scheduled to run five years, got under way at three sites. Two were in New Delhi. The crucial phase of the field experiment took place in a rural area around the town of Ramanagaram, near Bangalore in Mysore State in southern India. An additional element was added to the Ramanagaram research when a visiting American doctor proposed a method to assist in teaching the illiterate women of the villages which were their "safe" days. The method consisted in issuing to each woman a string of wooden beads. Colored red, green, and black, the beads represented the days of her menstrual period, her "safe" days, and her "baby" days. All that the woman had to do, in theory, was to move one bead a day, and she would never forget at what stage of her cycle she was.

Since the whole idea of government support of population limitation was new; since Americans were involved in a hopeful experiment; and since the beads were such a novel gimmick, the

Ramanagaram experiment received wide publicity in the Western world. Many American readers got the impression from the enthusiastic stories about Ramanagaram that India's population troubles were over, solved by American ingenuity and a few little wooden beads.

Unfortunately, the reports of success were highly premature. The late Mary Langford Taylor, the able American organizer of the program, discovered to her distress that neither the beads, nor the rhythm method itself, could serve as a potential savior for Asia.

The beads didn't work out in the expected fashion. Some of the women in the villages accepted them as "jujus," or charms, capable in themselves of preventing conception. Others arranged the counting of the beads to suit their own desires rather than nature's cycle; they considered that by flicking through the necklace to a green bead, they could automatically make the day "safe." Still others refused to wear the beads because they weren't attractive, or because the cotton thread on which they were strung was taboo on certain days. And some women wore the necklaces but continued to fulfill their marital obligations according to the dictates of their husbands, not of the beads.

In any case, it turned out, the failure of the rhythm method couldn't be blamed on any difficulty the villagers have in remembering what day it is. They can remember with ease if they choose, without beads or any other device. Without calendars, for instance, Indian villagers have no trouble keeping track of the intricate schedule of Hindu holidays.

What the experiments did show was that most Indian women simply have no predictable menstrual rhythm. On their scanty and unbalanced diet of rice or millet, they aren't in good enough health to maintain a regular fertility cycle. Any slight shock seems to change their menstrual pattern. It seems apparent

that the rhythm method of birth control isn't suited to India, or to Asia.

Ramanagaram, incidentally, has been since 1936 the site of a model public health center, supported mainly by funds of the Rockefeller Foundation. It is the sort of public health center that the Indian government, as well as all other Asian governments, would like to establish throughout their countries. Three doctors with twenty-five assistants maintain a small hospital and a laboratory. They regularly visit the larger villages of the district, where they hold weekly clinics. They vaccinate the children. They carry out health education work in the local school, and health propaganda in the villages. The eleven midwives of the unit give pre-natal advice and care, and deliver about half the babies born in the area. The health inspectors conduct cleanup and sanitation campaigns in the villages, and supervise the construction of model latrines. This is a pattern for other Asian centers to follow.

In their first five years at Ramanagaram, the public health workers drove the death rate down from some 30 per thousand to 18. Except during World War II, they have kept it moving downward. In 1952, when the family planning experiment began, the death rate averaged 14 per thousand. It is ironical that even while one of India's most important efforts in the direction of birth control was taking place in the district, the death rate continued to fall as much as the birth rate, and the population of Ramanagaram rose by nearly 3 per cent a year.

Among the other existing contraceptive techniques, each has its own drawbacks which make it unsuitable for mass application in Asia. Use of the diaphragm presupposes the existence of both privacy and plumbing. So do the use of douches and of vaginal jellies, and in addition, neither of these is a reliable

method of preventing conception. A private Planned Parenthood group in India, headed by Lady Rama Rao, has conducted village experiments with a contraceptive chemical known as "foam tablets," but the results have not been encouraging. "Coitus interruptus," or withdrawal before ejaculation, is a method widely used by highly sophisticated Europeans, but doctors consider it unsuitable as a means of contraception for uneducated, unsophisticated Asian peasants.

The most effective of the existing devices is the condom. In Japan, as in the United States, the use of the condom is far and away the most popular contraceptive method. In one survey of Japanese families who practiced family planning, 57 per cent used condoms. The condom is simple. It is effective. It is reliable. Unfortunately, it is not cheap in Asian terms. The purchase of condoms at three for a dollar may not dent an American family's budget, but even with a lower cost of manufacture in India, the price of condoms is prohibitive for all but the rich.

Sterilization has played a considerable part in the reduction of the birth rate in Japan. The operation was permitted and in some cases required by the 1948 Eugenic Law, either for reasons of eugenics—to stop a hereditary disease or deformity—or for reasons of health. The danger from the birth of an additional child was accepted as a valid medical reason for a woman who wished to be sterilized. The number of sterilizations reported on women quickly climbed from 5,684 in 1949 to 41,727 in 1955. In no year were more than 600 sterilizations reported on men. It is generally assumed, however, that for every sterilization reported in Japan, five to ten are actually performed. According to Dr. Taeuber: "The future role of sterilization in the limitation of fertility [in Japan] is related closely to the spread and the efficiency of contraceptive practice." In other words, if they don't get improved methods

of contraception, the number of sterilizations will probably climb.

In India, too, considerable attention has been paid to the possibilities of sterilization. The chief proponent of mass sterilization has been the director of the Indian Institute for Population Studies, Dr. Sripati Chandrasekhar. He would like to see the government offer one hundred rupees (about twenty dollars) to every male with two or more children who agreed to be sterilized.

Early in 1959, the government of India adopted a version of Dr. Chandrasekhar's proposal, authorizing small payments to males who choose to be sterilized. The Indian Medical Council has ruled that the simple operation involved does not harm the individual. As long as the surgery is entirely voluntary, the Ministry of Health sees no objection to it.

But the experience in two states which had previously tried the plan indicates that even the offer of money hasn't made sterilization sound attractive to the mass of Indians. For several years, Madras and Mysore States had been offering free hospital care and twenty-five rupees to citizens volunteering to be sterilized. In 1957, only 2,549 operations were reported for all India, including 1,155 in Madras where the offer had already been made. Apparently, no matter how many children an Indian family may have, both men and women hesitate to bar themselves from reproduction. It seems to take more than money to overcome this psychological block.

Even within the camp of those working for family planning in India, the plan for "paid sterilization" met stiff opposition, especially from Lady Rama Rao. She has expressed fear that mass sterilization might damage the status of the family, and that offers of money might invite corrupt practice.

A resolution advocating sterilization as an effective means of checking population growth came before the 1959 conference

on planned parenthood in New Delhi. An overwhelming majority of the delegates at the meeting accepted the resolution and were prepared to vote for it. As it happened, Lady Rama Rao was in the chair. As chairman of the International Planned Parenthood Federation she postponed the vote on the grounds that the resolution had to be examined by the governing body of that organization. The resolution urged that governments should take measures necessary "for removing legal doubts where they may exist and defining conditions and safeguards subject to which the operation may be legally performed." Delegates were hopeful that, even though the resolution was tabled, the backing given to it by experts present at the conference would lend confidence to Asian countries to take action in regard to sterilization.

Abortion, in an age of antibiotics, does not present the health hazard which it used to, nor do Asians, generally, seem to consider it with the same repugnance as do Westerners, schooled in Christian ethics. However, outside Japan the practice of abortion does not seem to be widespread. Abortions involve considerable pain, physical inconvenience, the social unpleasantness of concealment, and, apparently, a nearly universal feeling of having done something that is not quite proper. If the operation is resorted to more than once, the health danger grows.

Certainly in Japan the matter-of-fact acceptance of abortion was an important factor in the rapid lowering of the birth rate after 1948. Whether any other country of Asia could undergo the same sort of widespread, voluntary recourse to abortion to halt its population growth is very doubtful. In China, however, as the government control grows over the lives of the peasants in the communes, as we have noted, it is possible that the Communists will turn to abortion as a means of limiting population growth. For them it would be a comparatively easy method.

They can apply the operation on almost a mass basis. Communists have never been noted for their consideration of ethical values, or their respect for human lives. The principal question for them would be whether mass abortions would efficiently serve the needs of over-all Communist policy. And this does not seem to have been decided.

A consideration which would certainly arise if any Asian government today were seriously considering embarking on a national birth control plan would be the impossibility of obtaining Western aid for a campaign which relied on abortion.

The whole question of the applicability of techniques may be settled—and soon—by the introduction of “The Pill.” In its ideal form, “The Pill” would be as simple, as safe, and as cheap as aspirin is today. It would be suitable for long periods of storage without refrigeration. It could be taken either by the man or by the woman. It would be non-toxic, even if taken in abnormally large doses. It would be effective if taken according to some easily understandable schedule—once a day, once a week, or, preferably, once a month. It would have only a temporary effect; it would not bar a man or woman from having children whenever he chose to stop the dosage.

Such a pill is not outside the bounds of plausibility. The development of the sperm and the ovum, and the fertilization of the ovum by the sperm are among the most complex and delicate of all the biological processes. Somewhere, many scientists believe, a chemical way to interrupt just one of these processes will be found. Throwing no more than one phase of one process off balance could do the trick.

Dozens of scientists all over the world have been searching for just such a prescription for contraception. Hundreds of drugs have been tested, including many derived from the

traditional contraceptives of folklore in different parts of the world. Work is still being done in India, for instance, on an oral contraceptive made from chick-peas, which Indian women have thought for centuries to have the power to prevent conception. The pill seems to have some effect. In this country, scientists have been trying for a decade to figure out what it is in a form of the gromwell weed, a cousin of the forget-me-not, that makes it a fairly reliable contraceptive when Shoshone Indian women brew it into a potion for themselves.

A few inventors have thought they had discovered a real solution to the problem of "The Pill." In most cases, experiments have shown that the compound was not really a sterilizing agent, but an abortifacient—a drug causing abortion.

Several preparations still being tested, however, show great promise. One is a synthetic hormone known as progestin. It is chemically related to the progesterone which women secrete when pregnant. One of the functions of progesterone is the prevention of ovulation during pregnancy. Progestins have been sold for several years, under prescription, as remedies for menstrual disorders, and, paradoxically, to promote fertility. After taking it for a time, some women who have been barren have found they were able to conceive.

The progestin pills are still undergoing field trials as contraceptive devices. The major tests have been conducted by the Family Planning Association of Puerto Rico, and the results have been reported to be extremely successful. When taken regularly, the pills have forestalled conception. They have caused some side effects, such as headaches and nausea, but experiments indicate that these are mostly psychogenic. In no case did the pills seem to cause any permanent damage. The drawbacks seem to be two: the frequency of dosage and the price. The pills today cost some fifty cents apiece. This price might be lowered if they were manufactured on a mass scale, but it

would probably never reach the level that would put it within the grasp of most Asians. A woman must take the pill, without fail, for twenty days in a row between her menstrual periods.

Another promising discovery is a completely different preparation discovered by Rockefeller Foundation scientists, known as MER-25. It was originally thought of as a possible treatment for cancer, but it proved instead to have an effect on fertility. It has been tested successfully on rats, but not yet on humans.

The fact that progestin and MER-25 have been discovered is, at least, a hopeful sign that "The Pill" will be found. It may not turn out to be any of the drugs now being investigated. What is needed is a determined research effort into the fundamental principles of reproductive physiology.

But even if "The Pill" is developed, the problem will still remain of convincing Asians that they should take it.

Outside Japan, and aside from the thin crust of the Western-educated upper class, few Asians today have an active interest in limiting the size of their families. A postwar survey taken in and around Calcutta indicated that 95 per cent of the peasants have no desire to practice contraception. Only .3 per cent actually had ever used a contraceptive device. Mrs. Taylor, who conducted the family planning experiment in Ramanagaram, felt somewhat more hopeful about the attitude of villagers. Of the 1,228 couples whom she covered in an intensive survey, 61 per cent of the men and 59 per cent of the women said they would like to have smaller families. Their very exposure to the birth control experiment, however, probably made the residents of Ramanagaram something less than typical of all Indian farmers.

Whether the attitude of Asians can be changed is a question that cannot be settled without a trial. The Japanese govern-

ment after World War II actively encouraged family planning, not only through the Eugenic Law, but by regularly informing the people how fast their numbers were growing, and what difficulties lay ahead for young people growing up and hoping to find jobs. Government public health technicians in the villages worked hard to educate the peasants in the concept of family planning. But the Japanese experience can't be considered a fair trial of a planned campaign to change attitudes, because the people of modern, industrial Japan were ripe for a change in the traditional national point of view of family size.

Today, the reports are that China is conducting a determined campaign of education by posters, movies, and slides, and over the radio and through public health centers. The future of China's birth control campaign, however, depends on the vagaries of the Communist party line.

In India, too, as we have seen, some sporadic effort is being made to promote family planning. Of the \$10 million allotted to family planning in the Second Five-Year Plan, about \$9 million was for birth control centers and research on contraceptives, and \$1 million was ticketed for education. Since 1955, some posters and booklets have been distributed, and nine movies have been made about the biology of reproduction, child welfare, and family limitations. But \$1 million doesn't go far in a nation of 400 million persons.

There is a job to be done, in India and in all Free Asia. Mere recognition that a population problem exists will only begin to solve the problem. It will not do any good to sit helplessly, waiting for "The Pill" to provide a solution. The time for Asian governments to start convincing their people of the advantages of small families, and of the need for family planning, is not the day the first batch of pills arrives, but today.

And if the job is to be done, Asia needs help from the West.

CHAPTER ELEVEN

What's to Be Done?

We have seen how hard the leaders of Free Asia are fighting for the economic development of their countries, and yet how the battle they are waging is a losing one. No sooner does an Asian nation succeed in taking a step forward toward economic progress than the inexorable effects of population growth move it backwards by a step—or more. As the years go by, the steps forward are going to prove even more difficult to take, and the force pushing backwards is bound to grow stronger. No one but the Communists stands to benefit from the increase in misery to which Asians seem doomed, and from the sense of futility which Free Asia's leaders are beginning to feel.

We have seen that, aside from Japan, Communist China is the only country that has taken any serious steps to control the population explosion. India, leader of the Free Asian countries, hesitates like an oriental Hamlet, knowing the direction it should travel, but so unsure of the path as to be paralyzed into inaction. If China, by whatever means, succeeds in slowing its population growth, its chances of outdistancing India in the

Great Economic Sweepstakes will be heightened. The chances that all Asia will fall into the hands of the Communists will be just that much greater. If, on the other hand, India decides to move ahead on a campaign of population limitation through family planning, it can show all Asians the way to a future of relative freedom, security, and well-being.

It is patently obvious that the interests of all of us in the West lie in India's adoption of such a course of action. It also seems obvious to most of us in the West that such a course of action is the only one that makes sense for the Indians and for all Asians. What, then, can we do to convince the leaders of India and of all Free Asia that the future of their people depends on their applying the brakes to runaway population growth? And, if we can so convince them, what can we do to help them to accomplish that goal?

In the first instance, we Westerners have a massive handicap to overcome. Asia's leaders and many of their people have a mistrust of us that amounts almost to an instinct. Even if their brains tell them that the West wants to be friends on equal terms, their hearts warn them against our motives. Even if their brains tell them that the long years of colonialism truly brought much that was good to Asia, their emotions refuse to accept the thesis. Many of our best friends among the Nationalist Chinese on Formosa, for example, couldn't suppress a thrill of pride when their fellow countrymen across the straits—even though they were enemies—drove their Western friends, the Americans, south from the Chinese-Korean border in the winter of 1950-51. No matter how sound an argument a Westerner makes in Asia for any particular thesis, he runs immediately into a wall of resistance, which most Asians semi-consciously build up against any Western proposition, simply because, as Western, it is suspect.

Pandit Nehru himself recognized this aspect of the popu-

lation problem in his talk at the opening of the New Delhi conference on planned parenthood in February, 1959. Europeans and Americans, he said, are "more particularly frightened" that their high standards of living might be affected if the rapid growth in India, Communist China, and other Asian countries is not checked. While Western fears are legitimate and must be considered, he said, he does not think they lead to the right approach to the problem, or one that "Asian countries can particularly appreciate."

One wonders if he expects us to say nothing while his country endangers its own freedom, and, by failing to take action, also endangers ours.

But, obviously, we must be tactful. At the same time we must be both frank and realistic. Certainly, the adoption of birth control throughout Asia, if it frustrated the aims of the Kremlin, would be in the interest of every Westerner. And, to be candid, even if there were no Communist threat, it would still be to the interest of Westerners that Asians should not proliferate to such a point that they turned envious eyes on the open lands left in the West. There is no point in denying these truths.

At the same time, however, we have a good case to present to prove that it is in the self-interest of all Asians to impose self-control on their own reproduction. There is no pressure that we can put on Asians from outside. But we can help them to come to understand that someday they or their descendants must strike an ecological balance with the resources of their continent. They can save much misery for themselves and for the whole world by taking steps to strike that balance as soon as possible.

Many educated Asians snap back at any Westerner's comment on Asia's population problem with the rejoinder that Asia wouldn't be overcrowded if its residents were free to migrate

to the West. It is certainly true that every Western country has established some form of bars against Asians. The United States has had a policy of exclusion for more than sixty years, since Americans became alarmed at the "yellow peril" of the Chinese who swarmed to the West Coast after the Civil War. The tightest restrictions against Asians are those established by their nearest Western neighbors, Australia and New Zealand. Those underpopulated countries want new citizens, but new white citizens only. Africa, in so far as it is controlled by the West, has strict controls over the number of Asians allowed to join the 600,000 Indians and Pakistanis now living there. Even such a racially tolerant and underpopulated country as Brazil has had a ban against immigration from the Orient since before World War II.

But even Westerners who disapprove of the details of their own national immigration laws need have no compunctions about defending the general principle of limiting Asian migration to the West, at least while Asians remain as prolific as they are today. An example of what unlimited Asian immigration can lead to has occurred during the past half-century in the Fiji Islands in the South Pacific. The native Fijians themselves are an independent lot, who make poor plantation hands. The British, therefore, imported Indians to work the land of the big holdings. Between 1881 and 1938, about 35,000 Indians emigrated to the Fijis. They thrived on the atmosphere of the South Seas, and they proceeded to multiply, many times over. Today, their descendants constitute half of the nearly 400,000 people of the islands, and considerably outnumber the native Fijians. They can't be sent back to India. They can't be forced into a status of second-class citizenship. And they are still multiplying. Should the Fiji Islands become a self-governing democracy, it will be, in effect, an Indian rather than a Fijian country.

An Indian student of population problems, Professor Radhakamal Mukerjee, has written a book urging mass emigration and world-wide equalization of land holdings as a cure for Asia's troubles. His theory is that the world is unfairly divided between East and West. He pictures 2.4 billion persons—presumably mostly Asians—living on rice in the tropical rain forests of South America, and another 2.3 billion in the forests and savannahs of Africa. "Vast arid areas in North America which are now settled only by cattlemen," he added, "can be brought under the plough and harrow if Chinese and Indian immigration is encouraged on a reasonable scale."

Professor Mukerjee is optimistic about the possibilities of the Asian migrants acquiring a higher standard of living in the new areas to which they would go. But to judge by his writings, his ideal for the world consists of some 10 billion people, all living on a purely vegetable diet at a basic subsistence level. He would equalize the wealth of Asians and non-Asians by reducing the entire world close to an Asian standard of living. His theory is one of imperialism in reverse, a conquest of the West by the East with one simple weapon—outbreeding.

It is also worth noting that to keep the population of Asia on a stable basis would require the emigration of 25 million Asians a year—nearly the population of Spain, or of New York State plus Illinois.

Certainly the West, if only indirectly, helped to get Asia into its present population pickle. And certainly Westerners, since we all live on the same planet, have a responsibility to try to help Asians solve their difficulties. But accepting a mass of Asians into our own midst, and lowering our standards to meet the needs of their rapid multiplication, hardly seem to be moves in either a sensible or a desirable direction.

Equally absurd, if in a somewhat different vein, is the sly suggestion sometimes heard that the West should withdraw any

assistance to Asia in the field of public health. Our fault is not that we have introduced too many public health techniques to Asia for its own good, but that we have introduced one set of techniques to extend lives without a balancing set to ensure that the life extension process doesn't become a detriment to Asia's welfare.

The public health movement can be harnessed to the service of a sane policy of family limitation. There is evidence that the improvements made during the past few years in the health standards of Asia have caused Asians to begin to set a higher value than ever before on the individual human life. There is a close connection between this new valuation and such concepts as the protection of the health of mothers, the responsibilities of parents to children, and the benefits to be gained from an improvement in family life. The public health services and the medical profession, already trusted by the people of Asia, seem to provide the best vehicle for transmitting these ideas, and for directing and leading national programs to control the size of families. If, for instance, a World Health Year is organized for 1961, one of its principal goals should be the wide dissemination of information about family planning.

In any case, even were we in the West cruel and immoral enough to want to bar Asians from modern public health techniques, it is doubtful if we could effectively do so. The clock cannot be turned back.

Well, then, what can we do?

There seem to be three main lines of activity in which the West—or Westerners—can engage as parts of a constructive effort to help Asia overcome its population problem, and, thereby, to help Free Asia maintain its new independence.

1) The West can take effective action to promote the economic development of Free Asia, and, primarily, that of one key country—India. There may be many aspects of India and

its political affairs of which we disapprove, but we have a lot at stake in its struggle against odds. We Westerners can afford to give aid to Asia on a scale far greater than anything we have done in the past. We can't afford not to give this aid.

2) It is often charged that giving aid to Asia is pouring money down a rathole. As long as the help we give leads not to economic progress but only to a gross increase in the number of hungry Asians, that charge is fully justified—probably more so than the accusers who make the charge even dream themselves. Therefore, the only real assurance we can give ourselves that our aid is not wasted is to take what steps we can to help Asians to bring their own population growth under control. The West can use its highly developed techniques of education, advertising, and—if you will—propaganda, to convince Asians that they are breeding massive difficulties for themselves. The victory that must be won is on a battlefield that lies in the minds of Asians—hundreds of millions of individual men and women.

3) At the same time, the West can apply its equally highly developed scientific and medical resources far more intensively than ever before to solving the remaining enigmas of human reproduction. A culture which, within the space of two decades, could produce the whole range of miracle drugs, surely can produce a contraceptive that would be workable in Asia. The "March of Dimes" did much to solve the problem of polio, which afflicted hundreds of persons a year. The problems posed by high birth rates affect millions of persons a year. These persons may be half a world away from us, but the solution of this problem of theirs is far more urgent, to us as well as to them, than cures for cancer and heart disease.

If we in the West are to register a real impact on the economic development of Asia, we must increase the magnitude of our

aid to Asian countries. The increase must come chiefly from the United States, the richest nation in the West and in the world. This means all sorts of aid, public and private. But since the government is the logical agency through which such aid can most efficiently be channeled, this of necessity means an increase in the taxes on Americans.

Aid to Asia, even when it isn't given in the form of rifles and jet planes, is truly in the interest of "mutual security." Economic assistance of a constructive sort helps to assure our freedom, whether it is offered to a right-wing government such as that in Pakistan, or to a semi-socialist, neutralist government such as that in India. Foreign aid to the Free Asian countries, if properly planned, can be an investment in our own future as well as theirs. It can be a weapon of anti-communism even when it is directed to a country that is neutralist, but free.

Aid to Asia may take many forms. It need not consist only of outright grants. Loans and other forms of investment—public and private; American and international—can be just as important as gifts. Nor need the aid be in the form of money. Our technical assistance is sometimes more valuable than our cash. The Ford Foundation, in its part in the village development program in India, has shown one way in which the West can help Asians to move forward.

President Eisenhower, in a message to Congress early in 1959, proposed distributing American food surpluses in the world-wide cause of "food for peace." This is a praiseworthy scheme, if it isn't used as an excuse to avoid facing the full measure of the aid problem. Even if the entire United States food surplus for 1957 were distributed among the two-thirds of the world's inhabitants who are undernourished, it would supply each of them with the equivalent of approximately two teacupfuls of rice every seventeen days for a year. A food distribution scheme could and should be a part of a total aid pro-

gram. It is especially desirable at times of crisis, such as the 1958 year of poor harvests in Asia. But of even greater continuing importance are the programs of technical assistance which help Asians to improve their methods of farming and fishing, and which work toward the development of new foods which Asians can produce themselves. And far more is needed in Asia than food alone. To try to solve Asia's economic problems by increasing the amount of available food is as impossible as the task of Sisyphus—pushing a boulder up a steep and never-ending slope.

What the exact level of total economic aid should be is not a matter to be settled in such a brief discussion as this one. If the United States expects to accomplish results in Asian countries and in other underdeveloped areas, it must face the fact that it is time to up the ante.

In the first twelve years after World War II, the total United States foreign aid amounted to about \$60 billion. A third of this was direct military aid. Of the \$40 billion of economic aid, \$25 billion went to Europe, mostly in the Marshall Plan. Less than \$15 billion, or one-quarter of the total, was in the form of economic aid to underdeveloped countries. About \$9 billion went to Asia. Of this, \$6 billion was divided among Japan (which isn't really in the "underdeveloped" category), Korea, and Formosa. Another billion went to the Philippines. That left about \$2 billion for the rest of Free Asia.

Walter Lippmann has suggested that the United States might set aside something on the order of \$5 billion a year to invest or lend to the key underdeveloped countries of Asia, Africa, and Latin America. This would represent about 1 per cent of our gross national product. It would mean somewhat more than doubling the rate of spending on foreign economic aid in the late fifties; President Eisenhower's proposed budget for fiscal

1960, for instance, contained \$2.3 billion for non-military foreign aid.

The British editor and writer Barbara Ward, in a separate study, extended the concept of increased contributions to a broader foundation. She proposed that all the developed countries, through the United Nations, give 1 per cent of their national income each year (essentially, gross national product less depreciation) to a development fund.

Such thoughts as these have found an echo within the United States government and in both political parties. In the summer of 1958, several Democratic senators of the Foreign Relations Committee (and one Republican) complained to President Eisenhower that the relationship between military and economic aid was "seriously distorted." Later in the year the President appointed a high-level committee (the Draper Committee) to investigate the whole question of foreign aid and its part in the economic warfare between the Free World and the Soviet. And early in 1959, Douglas Dillon, Under Secretary of State for economic affairs, commented in a speech:

[There is a] demand being made upon our resources and upon our consciences to help raise the living standards of the peoples of Asia, Africa, and Latin America. These are the areas where most of mankind lives and where the struggle between freedom and totalitarianism may ultimately be decided. The need to help these peoples forward on the road to economic progress would confront us even if communism and the Sino-Soviet bloc simply didn't exist.

A sensible way to employ to the best advantage an increase in foreign aid appropriations would be to concentrate large amounts of any development fund on India. Through the wise use of capital we could underwrite the development of this key country. India can use more investment capital. In fact, the continuance of Indian democracy may hinge substantially on

the scale of American support of the Second Five-Year Plan and its successors. So far, we have done little to help. India's share of American aid in the twelve years after World War II came to \$4 billion, less than 1 per cent of the foreign aid total. "This country has thus far proved capable," to use the words of Senator John Kennedy, "of only tepid, spasmodic measures."

If India can successfully develop its economy and advance the living standards of its people, it will steal the limelight away from Red China. It can prove the proposition that material progress and civil liberties are compatible. India is a big country, with big problems, as all the world knows, and its success would be a big success. But more than any other of the free, underdeveloped nations it has the resources and the educated personnel to enable it to succeed—and it has the will to succeed. Also, as Walter Lippmann has pointed out, India has a spiritual heritage—that of Gandhi—which is attractive to the masses of the world's underprivileged, and which can compete on equal terms with the heritage of Lenin.

Finally, and not least important, India's leaders, more so than those of any other free, underdeveloped country, are in a position and probably in a frame of mind to embark on the necessary correlative of an economic development program—a determined campaign to put a damper on the terrible population explosion.

The burden which the United States government, and other governments, will have to assume in order to help in the economic development of India, of Asia, and of the other underdeveloped areas of the world, can be lightened if private capital can be induced to bear its share. This, again, means primarily the United States, the major source today of private funds for foreign investment.

Private investment can best be persuaded by the lure of a good return on investment. There are various sensible forms of encouragement which can be offered to investment capital, both by the underdeveloped countries themselves and by Western governments interested in strengthening the weaker economies among the free nations.

One of the characteristics of an underdeveloped economy is that it offers relatively few opportunities to an investor to earn a return on capital invested in constructive projects. Where people are poor, markets for manufactured goods are poor. As a result, only a small proportion of the private American capital now at work overseas is invested in the underdeveloped countries of Africa and Asia. In the twelve years following World War II, Americans tripled the amount of their private foreign investment abroad, and in 1958 it reached the level of \$35 billion. But less than 10 per cent of this amount has been invested in the countries of Asia. Of the capital that has been directed to underdeveloped countries, the bulk has been for the development of extractive industries, especially oil. Of the \$8 billion dollars of American capital invested abroad in manufacturing, less than \$100 million, or about 1 per cent, is invested in Asian countries other than industrial Japan. In other words, America's private capital isn't flowing into the countries where it is most needed, and where it could do America the most good in the "cold war." In India, for instance, American private investment is negligible. Yet the development of manufacturing in India is especially important because of the effect that industrialization is likely to have in altering the traditional rural birth pattern of the people.

Considerable capital might be attracted to just such underdeveloped countries if investors had reason to believe that the people of the area would, within a few years, be more prosperous and have more money to spend. Successful develop-

ment feeds on itself. The United States, other Western governments, and the governments of the countries which are so eager for development capital can all turn this characteristic of international investment to good account.

As an example of what can be done, in 1942 the United States gave a stimulus to its citizens to invest in Latin American countries and Canada by offering lower effective income tax rates on money earned by American companies operating outside the United States but in the Western Hemisphere. The flow of capital generated by this incentive has proved important in the development of the economies of Canada, Venezuela, and other countries. In fact, two-thirds of America's private foreign investment today is in the Western Hemisphere. Congress could easily extend the same type of tax "break" to cover companies investing in other underdeveloped areas of the world.

Underdeveloped countries themselves can offer special inducements to capital to come their way. The Indian government already, for instance, offers certain rights and guarantees to foreign investors who choose to put money into basic industries in India. Apparently these inducements aren't strong enough. If India wants to attract private investment—and it has announced that it does—it would do well to extend its inducements further. In particular it should allow the economic climate in what it calls "the private sector of the economy" to warm up. If India wants to aim toward socialism, it is its own business, but it isn't going to attract capital into such a frosty atmosphere.

It is noteworthy that each time a country uses its sovereign power suddenly to raise an agreed-on tax rate, to renege on a contractual agreement, or to nationalize an industry, capital is scared away, not only from that particular country but from all the underdeveloped countries. Each time this happens, a larger proportion of the available funds end up in safer investments close to home.

Whatever form aid to Asian countries takes—public or private; grants, loans, or investments—those who supply the aid have the right and the duty to protect their money from being used to subsidize continued population growth. In an underdeveloped country, population growth helps no one. It surely doesn't help the American or European businessman investing in the country, even though he may have become accustomed in his homeland to thinking of "more people" in terms of "more customers." And surely the citizens of Western countries, when they authorize tax expenditures in hopes of easing the hunger pangs of Asian children, don't want merely to foster the creation of still more hungry Asian children.

There isn't much the individual Western citizen can do to influence the course of the population explosion in Asia. He can acquaint himself with the facts. He can make donations to one of the few groups, such as the Population Reference Bureau and the International Planned Parenthood Federation, which are trying to help cope with the problem. He can prepare himself to pay new taxes as his share of his country's responsibility to its world neighbors, and its need for mutual security. And he can make sure that the candidates for whom he votes for national office are aware of the population problem, and prepared to take action in regard to it. Should he, for instance, cast a ballot for a candidate for President in 1960 who opposes helping India to get its birth control campaign into high gear?

And what can a government do—in particular, the United States government? It is easier to say what it cannot do. It cannot, as some writers have suggested, add contraceptive devices as "tie-ins" to its aid program, sending a gross of condoms with each bag of wheat. Aside from the fact that such a ridiculous course of action would be politically suicidal at home, it would brand the entire family planning program throughout Asia as a Western plot.

What the government could do as a first step is officially to take recognition of the existence of a world population problem which affects the security of the United States. Such recognition might be couched in the form of a statement of policy by the President; a report by an investigating group of the type of the Paley Commission; or a Congressional resolution such as the wartime Fulbright Resolution on the desirability of a "United Nations" organization.*

The population policy of the country need not be spelled out in detail. It could either include or tactfully skip over the possibility that a phase of the population problem exists right here in the United States. A suggestion for the wording of a policy statement has been offered in the interim report of the Subcommittee on Population Policy of the Committee on Conservation of the National Research Council:

It is recommended that all overseas area projects in which the United States participates take into consideration as part of their technical assistance and development programs the matter of population dynamics as influenced by development. Although this matter lies in the special province of public health and sanitation actions, it is an integral part of and should be of concern to area programs as a whole. In view of the fact that the traditional operation of public health agencies is only toward cutting infant mortality, improving health, and deferring death, it is recommended that equivalent attention be paid to measures designed to affect the birth rate, since population growth is a resultant of the birth rate and the death rate.

* Just such a first step was taken in July 1959, when the Draper Committee, in its report to President Eisenhower on the foreign aid program, proposed that the United States Government should make birth control information available to friendly nations requesting it. The committee also recommended that the government promote research on problems of population growth. These actions should be taken, the report stated, to help underdeveloped countries "in the formulation of practical programs to meet the serious challenge" posed by rapid increases in population.

Because of the strong political pressure from the potent Roman Catholic Church, birth control is a subject that government officials today consider too hot to handle. No government employee working in Washington or abroad dares to take an overt action which will forward the cause of population stabilization. Not a penny of government appropriations can be channeled into projects which might promote family planning. An official government policy statement would rob this unfortunate taboo of its effect.

There is also the possibility that once the United States government took a stand on family planning, other Western governments would follow suit. This could lead eventually to concerted action through the United Nations to meet the world-wide problems of population growth. Such international action was unanimously recommended by the delegates to the New Delhi conference on planned parenthood in 1959. The conference recommended, specifically, that the World Health Organization should provide contraceptive information as part of its health program; that the Food and Agriculture Organization should combine a family-limitation campaign with efforts to increase food production; that the Economic and Social Council should consider family planning as a major means of improving living standards; and that the Human Rights Commission should include voluntary parenthood and freedom to obtain family planning education in the listing of basic human rights.

The undertaking of such programs by the United Nations sounds ideal. In practice, unfortunately, it isn't likely to occur in the near future. So many blocs within the U.N. oppose the principles of birth control and population limitation that passage of any resolutions favoring action on family planning seems highly improbable. If any action is going to be taken quickly, it will have to be started by individual governments.

Even if the United States government were only to announce

itself as aware that the problem of population exists, there would be much that its own officials could do immediately to help Asians and people of other underdeveloped parts of the world to alleviate the problem. In doing so, they would be forwarding the interests of the United States in a way which is barred to them today.

A case in point is the impending good-will visit of the navy hospital ship *Consolation* to Southeast Asian ports as a floating medical school. The project is a worthy effort of the People-to-People Health Foundation and the government to advance the cause of public health in Asia. The staff of the ship is well equipped to bring the latest information to Asian health authorities on diseases and medical problems. But what an opportunity this could be for American doctors to offer their knowledge on birth control techniques to their Asian colleagues! "Floating forums" on family planning, held in conjunction with the seminars on diseases, would give a needed impetus to the cause of maternal health in Asia. The original announcement of the voyage spoke of visits to places "teeming with people and lacking in medical facilities." "Teeming" means, according to the dictionary definition, "to be stocked to overflowing." The greatest service the *Consolation* could offer to Asians would be to give their medical leaders an idea of the importance of staunching that overflow.

Medical skills are not the only ones which Americans could put to use in the cause of population stabilization. As we have seen, the first problem to be overcome lies in the minds of Asians. If the battle is to be won, Asians must be convinced that limiting the size of their families contributes to their own welfare, both individually and nationally.

Americans have developed to a high pitch the gentle art of persuasion. The words "advertising" and "public relations" may have sinister connotations, but it has been through Madison

Avenue techniques that Americans have been persuaded to look favorably on such causes as conservation, the protection of forests against fires, urban "cleanups," and privately sponsored health insurance, as well as on such crasser items as liquid detergents and high-finned automobiles. The cause of birth control in Asia could use some of those Madison Avenue techniques, adapted to the needs of the mud roads that serve Asian villages as Main Street.

This may sound frivolous, but it has the most serious sort of practicality. As an example, India has been considering the advisability of setting up a nation-wide television network. Such a network, even with only one receiving set in every village, could immeasurably speed the progress of the village development program and of agricultural reform. It could also serve as the optimum vehicle for persuading Indians throughout the land that their best interests lie in the direction of family planning. Should such a network be constructed under today's conditions, United States Information Agency experts would be unable to contribute their talents to aid and promote a campaign which even hinted at birth control. In fact, if American aid money went into such a television network—which would be a very good idea indeed—the Indians might find that they, themselves, were hamstrung in any effort to disseminate family planning education over the air waves.

Even before the government of the United States, or other Western governments, can move in support of population stabilization, there is much that could be done by private groups, and in particular by the great American foundations. There is, first of all, the urgent need for research on contraception, and for the development of "The Pill."

Without "The Pill," or whatever practical form a con-

traceptive for use in Asia might take, it is doubtful whether a family planning campaign among Asians could succeed. Obviously, therefore, time is important.

Dr. Robert Cook of the Population Reference Bureau estimates that \$30 billion is being spent each year in the world on medical care, public and private. A sizable chunk of this goes into research on ways to extend life. The American Pharmaceutical Manufacturers Association has estimated that in 1959 the drug industry would spend \$190 million on its research efforts, aimed at the major killing diseases. In one year, 1955, the outlay on research in the United States alone for control of one major killer, cancer, amounted to \$45 million, and another \$8 million was spent on cancer education. The impact of this medical research on Asia is potentially enormous.

Yet, according to Dr. Cook, the amount being spent annually on research into the physiology of reproduction, and the developing and testing of new contraceptive methods, does not even approach \$1 million. Surely the lack of balance is obvious.

"Is the world the better," asked Charles Galton Darwin, "for having a large number of healthy people dying of starvation, rather than letting them die of malaria?" The great foundations which allot funds for research, and the drug companies with their brilliant teams of scientists, might well reconsider what their prime responsibilities to humanity are.

Other private groups have acquired skills in collecting money from the public for research into vital medical problems. What problem could be more vital than that of the reproduction of life itself? The "March of Dimes," after its triumph over polio, found itself in the peculiar situation of having to look for diseases against which to do battle. Might an observer, who intends no disrespect to the sufferings caused by arthritis and birth defects, be pardoned for wondering if the impact of

these maladies on the world or on America is one one-hundredth as great as the impact of the population explosion? Surely if the American public were aware of the threat to its own future implicit in the swelling population figures in Asia, it could be aroused to help generously.

The private groups which are already working in Asia don't need to be reminded of the misery that is caused by overcrowding. It would seem logical for churches in this country to encourage their mission hospitals in Asia to turn their attention to the alleviation of this misery by offering their services as family planning centers to all who need help.

The subject of churches leads, of course, directly to the great question mark of all—the position of the Roman Catholic Church. Many Catholics today are faced with a paradox. They are aware of the problems posed in Asia and other parts of the globe by overpopulation and the continued increase of population, and yet they consider contraception to be immoral. One cannot ask the Church suddenly to alter a long-standing position on the morality of a given action. One wouldn't think of asking an individual Catholic to participate in an act which the Church considers sinful, such as teaching the techniques of contraception. One can, however, hope that the Church in its great wisdom will see fit to be tolerant of others who strive, within their own conception of morality, to ease suffering, individual and mass, which occurs in any part of the world because of the number of babies that are born.

Throughout the world the Roman Catholic Church is known as a firm and constant enemy of communism. Population growth in Free Asia is clearly working in the interest of communism. Should the Free Asian countries fall to the Communists, their new rulers would not be guided in their population policy by considerations of morality, or of free individual choice. They

would resort, if they chose, to compulsory sterilization, assembly-line abortion, and mass murder.

One can hope that the Church is pondering whether its opposition to programs of family limitation in Asia is consistent with its implacable resistance to communism.

What results can we hope to obtain if the West pitches in and helps Asians to solve their population problem?

The momentum of the accelerating population growth today is so great that we cannot expect stabilization overnight, or even a slowing of the rate of growth. A practical goal to aim for would be a leveling off over the next quarter of a century. If such a goal were successfully reached, the world would find itself in 1985 with a population perhaps a little over four billion, and Asia with somewhat over half the total.

Even this goal may be too optimistic. Harrison Brown, professor of geochemistry at the California Institute of Technology, has probably devoted as much thought as any one man to the problems of population growth. "In the absence of a major catastrophe," he has suggested, "there does not appear to be the slightest possibility that world population will level off much below 7 billion persons.

"As industrialization spreads throughout the world and if our ability to produce food is indeed the population-determining factor, the number of human beings might eventually exceed even that high figure. Ten billion persons could be supported but with extreme crowding and using the most elaborate of technologies. A much greater number is difficult to imagine."

The Population Commission of the United Nations, in a booklet entitled *The Future Growth of World Population* (1958) did succeed in imagining such a number. "With the

present rate of increase," the Commission stated in its preface, "it can be calculated that in 600 years the number of human beings on earth will be such that there will be only one square meter for each to live on." Naturally, people would starve, but they wouldn't have room to lie down to die.

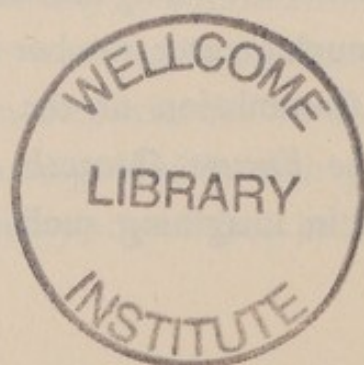
However, neither this *incrementum ad absurdum* nor Dr. Brown's projection of 10 billion persons represents a categorical imperative. Human beings aren't forced by divine law to breed themselves off the face of the globe.

They don't have to multiply until the friction of their rubbing against one another sets off enough H-bombs to eradicate the race.

They don't even have to increase to the point where hunger forces them to sell their freedom to Communist dictators in the hope of securing a few measures of rice.

At some point in time, population growth must stop. There is no reason why that point cannot be hastened and made to occur before catastrophe overtakes us.

Whether or not that point in time *is* hastened and *does* occur before it is too late, depends on the effort that thoughtful persons apply to the problem in the years that lie immediately ahead.



APPENDIX

TABLE OF POPULATION GROWTH OF
ASIAN COUNTRIES—(ECAFE AREA)
(in millions)

	1950	1960	Projection to 1975
Afghanistan	11.3*	12.8	16.9
British North Borneo	.3	.4	.6
Burma	18.5	20.7	27.4
Cambodia	4.0	4.7	6.4
Ceylon	7.7	9.8	14.1
China (Formosa)	7.6	10.4	15.6
China (Mainland)	547	654	894
Hong Kong	2.3	2.5	3.2
India	358	417	563
Indonesia	76	89.3	122
Japan	82.9	95.1	116
Korea (Northern)	9.0	10.2*	43
Korea (Southern)	20.2	21.3*	
Laos	1.2	1.6	2.2
Malaya	5.2	7.0	10.2
Nepal	8*	9.4	13.1
Pakistan	75	92.2	128
Philippines	19.9	24.4	34
Singapore	1.0	1.5	2.2
Thailand	18.5	22.9	32.1
Vietnam (Northern)		15.6*	
	22.4		40.4
Vietnam (Southern)		13.5*	
TOTAL (Including miscellaneous other territories)	1,300*	1,542	2,092

**Interpolation*

1950 figures from U. N. Demographic Yearbook, 1958

1960 & 1975 figures from "The Future Growth of World Population," U.N., 1958

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APPENDIX

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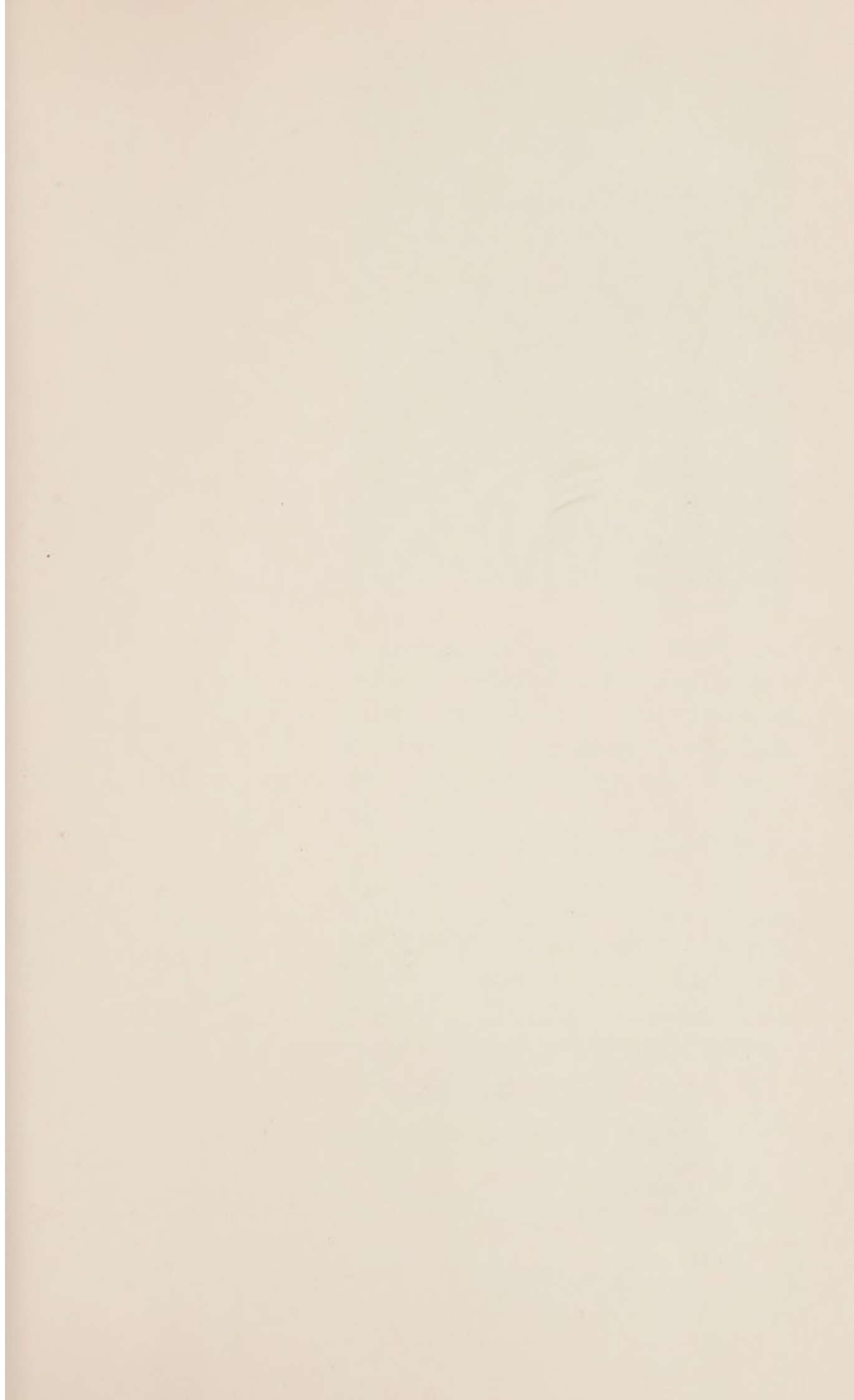
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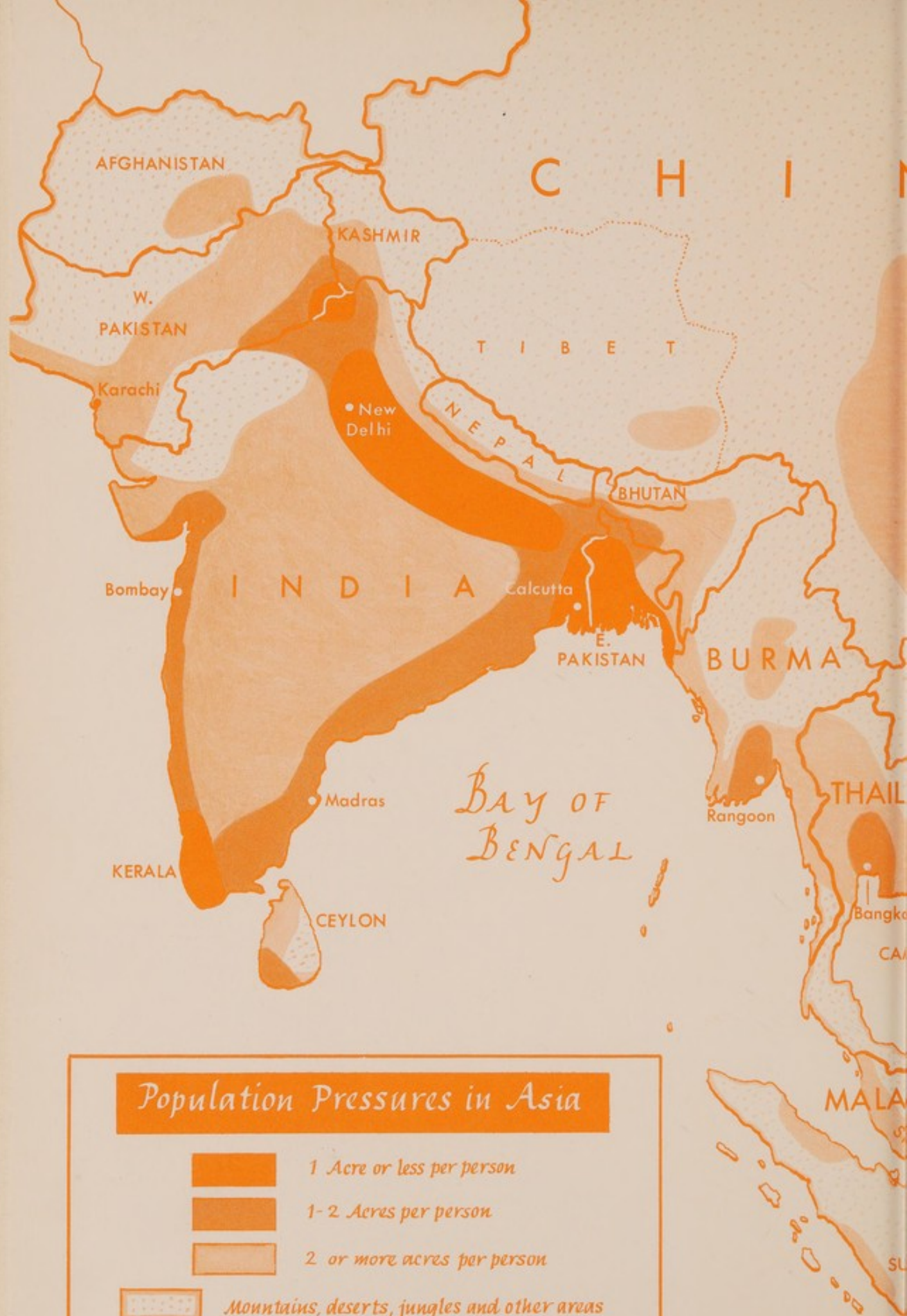
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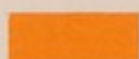
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Population Pressures in Asia



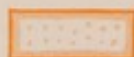
1 Acre or less per person



1-2 Acres per person



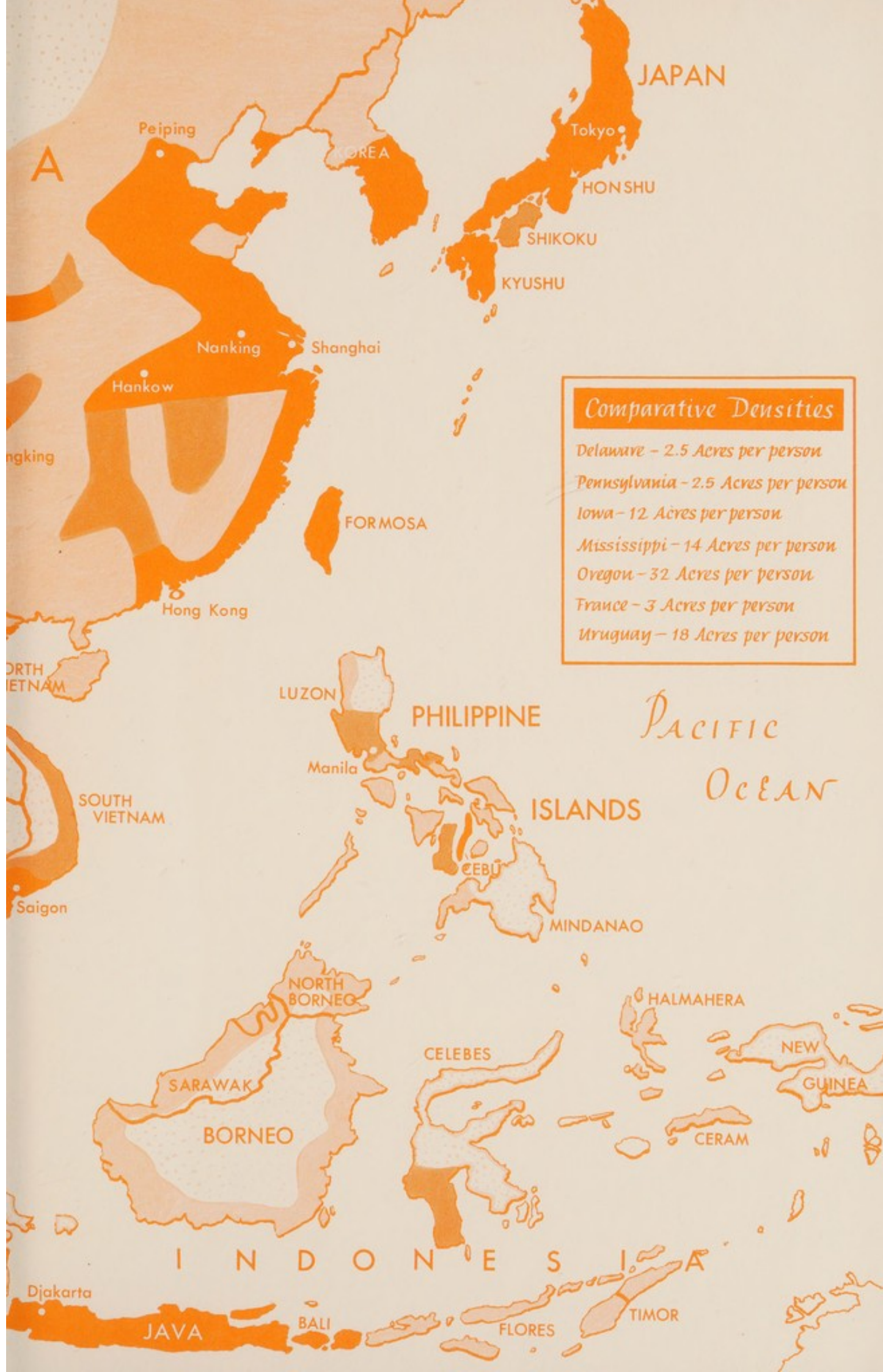
2 or more acres per person



Mountains, deserts, jungles and other areas
unsuited to habitation.

Scale of miles





Comparative Densities

Delaware - 2.5 Acres per person

Pennsylvania - 2.5 Acres per person

Iowa - 12 Acres per person

Mississippi - 14 Acres per person

Oregon - 32 Acres per person

France - 3 Acres per person

Uruguay - 18 Acres per person





MICHAEL A. ANGUTI

A graduate of Harvard in 1942, John Robbins worked for eleven years as a writer and editor of the *Cleveland Press* and has written on Asian affairs and other subjects for the *Atlantic Monthly*.

Winner of an Ogden Reid fellowship, given annually to selected journalists for travel and research abroad, Mr. Robbins chose to go to Asia. For nearly two years he traveled through Asia and the Middle East, focusing on the population problems of the nineteen countries he visited.

The result of his researches is this timely and important book:

TOO MANY ASIANS

Printed in the U.S.A.

from **TOO MANY ASIANS**

No sooner does an Asian nation succeed in taking a step forward toward economic progress than the inexorable effects of population growth move it backward by a step—or more.

Asia contains about one-sixth of the world's land, on which live slightly more than half of the world's nearly three billion inhabitants.

Every year of our own era, the number of people on earth grows around 50 million, equivalent to the population of New England, New York, New Jersey, Pennsylvania, and Maryland . . . every day we increase in number by 140,000, adding what amounts to nearly a daily Des Moines to the world.

To give one acre apiece . . . to each new Indian added to the population over a ten-year period would require a fertile territory the size of Illinois plus Indiana, or the size of West Germany.

Each new starving belly among the millions of already hungry Asians adds to the sum total of human misery by an amount so definite as to be almost measurable. If humanity is to have a future, the unrestricted growth of population in already crowded lands must be brought to a halt.