THE WHITE MAN'S DILEMMA

John Boyd Orr
David Lubbock

GEORGE ALLEN & UNWIN LTD

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The enormous gulf between rich nations and poor scarcely needs emphasizing today. Yet we remain reluctant to face the stark choice it presents, called here the White Man's Dilemma. Either the white peoples give up their futile rivalries and unite to end hunger in the world—now for the first time a possibility—or the tensions between 'haves' and 'have-nots' will end in a holocaust. The gulf is not bridging itself; it is in fact widening, and only action on a global scale can hope to be adequate. Such is the main plea of this book. When it was first published, in 1953, it was far ahead of its time. Today it has an added urgency. This revised edition includes new material, amongst it a Glossary of international aid agencies and an account of the Freedom from Hunger Campaign.

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AND
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TO LADY BOYD ORR

without whose co-operation *The White Man's Dilemma* of 1953 would never have been written

FOREWORD

by Lord Boyd Orr

The supreme issue facing mankind today is peace or war. Will the conflict of ideologies end in war, with the mutual destruction of the great powers, or will the governments have the intelligence to co-operate for their mutual benefit in applying science to increasing the vast potential wealth of the earth?

The urgency for a peaceful solution of this issue was heightened by the first use of nuclear weapons. The atomic bomb which fell on Hiroshima in 1945 was either the warning death-knell of civilization or the birth-pangs of a new era of peace and prosperity.

What is sorely needed is the first steps in the long and difficult march to the new era of world unity and peace. It is suggested that the first step could be international co-operation in a world food policy based on human needs. An attempt was taken in the League of Nations and again at Hot Springs in 1942. Both America and Russia co-operated with other nations in these attempts which were designed to bring about peace based on economic prosperity.

The success of the Freedom from Hunger Campaign shows that the people are willing to follow governments if they will take the initiative to a new era of peace.

There is hope that the great Powers will give this lead to the new and better world promised by the late President Roosevelt in the last war. Russia, which was ready to co-operate in the world food policy proposed by FAO in 1946 if America and Britain would too, is, I have reason to believe, still willing. France supported it. The late President Kennedy in his speech to the Assembly, shortly before his assassination, said America would support a food policy which would give every child in the world a good diet. The British Labour Party have put a world food policy on their political programme.

Thus governments are beginning to move. The people must hustle them to move faster. This book originally appeared in 1953. It has been brought up to date and re-issued in the hope that it may help to encourage people to give more vigorous support to the lead given by governments for a sane policy of co-operation for peaceful progress towards world unity, economic prosperity and peace.

CONTENTS

THERE is no shortage of books on food. We know the amount and the kind of food needed to maintain health. We can estimate the amounts of the different kinds of food needed for a country, or for the whole world. We have the technical knowledge which makes it physically possible to produce the food needed. Though further research is necessary, the information we already have is a sufficient guide to action. The scientist has done his job. The next move lies with the politician, who has a harder task than the scientist. He must consider food problems in relation to other economic and political problems.

These are of the utmost complexity. A world which, today, has to deal with atomic energy and with the new and equally powerful biological forces, is so different from the world of yesterday that the economic and political ideas with which the older politicians were familiar are obsolete. Nineteenth-century economics and politics cannot carry twentieth-century science. The only alternative to a collapse of our civilization is a complete readjustment to a new order, which will enable these new forces to be directed towards beneficial ends.

The necessity for such rapid and drastic changes is in many ways to be regretted. It is regretted by no one more than by the writers of this essay. It would have been better had it been possible to throttle down science after the First World War, and to give human society a chance to assimilate and adjust itself to the new forces, which, by then, had already been given to a world which was not ready for them. That was not possible.

Nor is it possible to prevent science from letting loose even more powerful forces upon a bewildered and frightened world. Under these conditions it is vitally important that the politicians of all countries should get together, and, setting aside all selfish national interests, should consider how they can evolve a new world order, suited to the new age of science; for in this now small world narrow national interests are of minor importance compared with the common interest of the survival of our civilization.

The difficulty is to get the nations to agree upon a central point from which they could take joint action for their mutual benefit. This central point might well be food. As Eisenhower aptly observed, 'hunger is the common enemy of all mankind'. However violently nations might disagree on political issues, they could agree in respect of this common cause, and from this narrow sector of agreement a wider understanding might gradually evolve. If they could be got to agree on the common objectivity of providing sufficient food for all mankind, then the powers of modern science could be gradually diverted from the production of weapons of war for the destruction of our civilization to the creation of wealth, and the evolution of a new civilization, free from poverty, with its intolerable evils of hunger, disease, and resulting social unrest, which constitutes the chief cause of war.

Co-operation in respect of food would have a good chance of success, because, as we shall see later, various attempts to obtain joint action on a world food policy have been made in the past and each has met with a greater measure of success than the previous one. Before dealing with the food problem we must first of all consider the upheaval caused by the impact of modern science on the world, for that is the background against which any attempt to devise a world food policy must be considered.

CHAPTER I

The New Era

THE END OF THE OLD

THIS century man has acquired greater powers over the forces of nature than the ancients ever ascribed to some of their gods. The thunderbolt of Jove is outclassed by the atomic bomb. Mercury, the messenger of the gods with wings on his heels, was slow compared with 'wireless'. Hygeia, the goddess of healing, was not able to free countries from diseases like malaria, which modern medicine can do in a few months. Nor was Ceres, the goddess of the growth of food plants, credited with the power of transforming a barren desert into fertile land with luxuriant wheat crops, as the engineer and the agriculturalist can today.

These new powers which man now possesses are bringing about great and rapid changes in human society. Wireless, the aeroplane and space-craft have made the whole earth smaller in terms of communication and transport than England was in the early years of Queen Victoria's reign. The world is now so small that a major event in any one country has immediate repercussions in every capital. The assassination of President Kennedy was felt in practically every home within hours of the dastardly action. If there is a war it is a world war. If there is a great economic crisis in any country, it becomes a world crisis. The world has become a physical, economic and political unity. The physical conditions for a World State, of which philosophers used to write, have been suddenly thrust upon us. But as yet it is a politically unorganized and chaotic State, with smouldering civil wars.

This shrinkage of the world, and other changes brought about by the unprecedented advance of science, have shattered the political structure of the nineteenth century. The thrones of kings and emperors have fallen. Countries, once the centre of great empires, have lost their wealth and prestige, and are dependent for their safety and their standard of living on new world powers, which are in turn finding their own safety threatened.

It is impossible to rebuild the economic and political structure of the world on the old model. We tried that after the First World War. The structure wobbled in the world economic crisis of 1929-32, and collapsed in the Second World War. Unless drastic changes are made, and made soon, it will collapse again in a Third World War, after which civilization, as we know it, could not endure.

Human society, in its present state of rapid transition, is like a chrysalis in metamorphosis. The chrysalis may evolve and become a butterfly or may die, but it cannot revert to the caterpillar stage. We are at the end of an era. With common-sense and courage we can enter a new and better one. Sir Lawrence Bragg, a great physical scientist with the breadth of view to consider science in relation to world politics, has said: 'The world today stands at the threshold of a new epoch, the age of science, as profound in its implications as the period when man became a cultivator instead of a hunter.'

The few men who control our destiny must exercise great political wisdom and goodwill and must be backed by well-informed public opinion to initiate the enormous international creative effort needed to bring the new epoch into being. Otherwise, if, with shortsighted pride of national power, they attempt by obsolete means to revert to the caterpillar stage, they will destroy the present civilization. The new epoch, if one could evolve after a world holocaust, would then probably come from the rejuvenation of one of the older civilizations of the East.

According to Toynbee, twenty-one civilizations have risen, flourished for a time, and fallen. Each arose by a creative effort in response to challenge, a change of conditions which made the old way of life impossible. When the adjustment had been made, the creative urge waned and the civilization began to decay. The greater the power and material wealth acquired, the more difficult it was to make the right response to a new challenge. The natural tendency to respond by methods which had been successful in the past was no answer to the new challenge. As he puts it, 'Nothing fails like worldly success.'

Though history shows that great success, such as our Western civilization has attained, is generally followed by failure, this is not inevitable. We can determine to respond to the challenge of the new and vastly different conditions of the twentieth century by reorganizing the political and economic structure, and so enter upon a new phase of creative development. The ancient Greeks considered that the size of the unit of government should be that in which the members of the government can be heard and seen by all the people. That unit today with Telstar, is the World. Human society has evolved from the family to the tribe and from the tribe to the nation with difficulty but with success. The next step, from the nation to the world, should not be beyond our capabilities. Failure to move with changing conditions, like the old aristocracies of France and of Russia, would mean revolution, but this time world-wide. It would be between the White man and the many times more numerous Coloured races, soon all with nuclear arms. We can go on; we cannot go back. The moves we have to make must be towards world government.

POWER TODAY

At the beginning of this century European nations had gained control, by their superior technology, of practically the whole world. The conquering nations failed to co-operate in applying

their technology to promote the welfare of others. Instead, they fought for supremacy amongst themselves. This so weakened their power that they became unable to hold their great empires.

The power vacuum in the world has been filled for the present by the USA and the USSR. The Western half of Europe has come within the sphere of influence of USA with an American in supreme control of the fighting forces. The USSR has taken over, even more completely, the Eastern half. These two world powers are now in much the same position as were the Europeans in the eighteenth and nineteenth centuries. They have the same choice of alternatives. They can resolve their differences, combine their great powers and get all nations to co-operate in applying science to develop the resources of the earth for the common benefit of mankind. Or they can continue the old balancing gamble of power politics ending in War.

It is interesting to note that scientists early foresaw the dilemma when science was beginning to give us great new powers over the forces of nature. In 1888 Louis Pasteur said, 'Two opposing forces seem to be in conflict, the one a law of blood and death, offering each day new modes of destruction, which forces nations to be always ready for battle; the other a law of peace, work, and health, whose only aim is to deliver man from the calamities which beset him. The one seeks violent conquest, the other the relief of mankind. Which of the laws will prevail, God knows.' The choice of the new powers remains the same but meanwhile, during the seventy-five years that have elapsed, the advance of science has vastly increased the power potential. It has raised the stakes to the point where for the first time in history its application to life could free the world from physical want, while its application to death could result in total destruction of civilization.

THE FUTILE IDEOLOGIES

Unfortunately so far the USA and the USSR, rather than co-operate, prefer to flaunt their differences on the international

platform in the guise of opposing ideologies. The USSR seems to consider that the supreme issue is the destruction of Capitalism, which must take place before science can be applied to bring economic freedom to the peoples of the world. At the same time US policy seems to be based on the theory that Communism must be destroyed before the nations can begin to build the new and better world. Peaceful co-existence is the term applied to the uneasy state while there is no hot war, but each makes every effort to wage a successful battle against the other in the cold war. The propaganda of fear and hope they engender tends to divide the people of the world into two groups, one willing to fight to the death for the pure doctrine of Communism, and the other willing to make the same sacrifice to save Capitalism, with its free enterprise and political liberty.

Yet both the Russian and the Western political systems have evolved from past conditions and are merely temporary phases in the evolution of society. The real situation in fact is very different from what each side pretends to the world. To destroy either Capitalism or Communism it is unnecessary to plunge into war, since both systems are converging and the ideologies are no longer clear cut. The UK, with nationalization of some industries, its Welfare State and its redistribution of wealth through penal taxation, is rapidly moving away from the ruthless Capitalism of the nineteenth century. It is little wonder that many in the US, seeing this and the growing power of the bureaucrats, think that this country has gone more than half-way to adopting the Communist system. But even the US, with its social measures of the New Deal, conscription, and increasing control of industry, has moved in the same direction. The USSR on the other hand is moving in the opposite direction. While there is a living standard below which no one is normally allowed to fall, the income of the worker varies according to the nature and amount of work he does. It is no longer, 'to each according to his needs'. It is now, 'to each according to his

ability and industry'. Many can afford motor cars and television sets, and to dine out in restaurants. Savings can be invested at 3% on call or 5% for long periods. There is no tax on savings and no death duties. Apart from the nationalization of all important industries, with the substitution of the bureaucrat for the plutocrat, the Soviet economy begins to look like nineteenth-century capitalism. The suppression of freedom of speech, however, is the worst evil and of the greatest danger to them. Yet with the tremendous drive for education, it will be impossible to prevent people thinking for themselves, and with modern means of communication no 'iron curtain' can prevent infiltration of democratic ideals from the West, nor of Communist ideals from the East. The conflict of ideologies is in fact unreal and futile.

THE UPSURGE OF ASIA

For the future in this new era, as the late General Smuts foresaw, the Upsurge of Asia is by far the most important event. China, with a population of some 800 millions, which is rapidly growing and with a higher proportion of young people than the Western nations, may develop even more rapidly than Japan did, and become the most powerful nation in the world. The resurgent nations of Asia, in their present weak position, may be pushed into the arms of Russia as source of needed industrial products, or may be drawn towards America for loans and an alternative source of materials. But, as soon as they become strong enough, they will take orders neither from Moscow nor Washington. In such changing conditions it is proving impossible to retain the *status quo* and very costly to try. It has been impossible to return Chiang Kai-shek to mainland China, nor was it possible to reinstate Syngman Rhee in Korea. The US are finding in Vietnam a costly impasse.

To attribute the opposition entirely to the Politburo is an

over-simplification, though the communists take advantage of the upsurge to undermine the power of the western world. It would be truer to attribute it to Gandhi, Nehru and other Asiatics who went to European and American universities. These leaders, and gradually more of them, realize how science has made it physically possible to abolish hunger and disease. However that may be, there are two targets of the Peoples' Movement. There is the revolt against the corrupt native feudal systems, and the revolt against domination by the White Man. The Japanese propaganda, 'Asia for the Asiatics' has taken deep root. This revolt has spread out of Asia from Japan to Morocco and down the African continent.

Great changes will take place in these new nations which have taken their destiny into their own hands. There is no valid reason to believe that they are innately inferior, either physically or mentally, to the White Man. Psychologists can detect little if any difference in the mental capacity of peoples of different race or colour. This is what might be expected, at least so far as the Asiatic and Semitic races are concerned; for in the higher realms of thought, in religion, ethics, art, and the drama, Europeans have made no substantial advances beyond what they had reached over 2,000 years ago. The Western advance has been made in the development of science, which anyway originated in the East, and in its application to construct power-driven machines. Those of the coloured races who have been trained, show no difficulty in employing the technology of the West. There is no reason, either, to believe that their natural resources, which have never been adequately surveyed, are less than those of the West. The East, in fact, is on the eve of an industrialization and a rise to economic power more rapid than has yet occurred anywhere. Another huge bloc of industrial capacity will become available and may be used for armaments, unless we can rapidly divert and absorb the world industrial machine in the relief of mankind's ills rather than violent conquest.

POWER POLITICS OUTMODED

Alfred Nobel, the inventor of high explosives, foresaw that the advance of science would produce such dreadful weapons that full-scale war as a means of settling disputes would become impossible. Today their use certainly would end in mutual destruction. The aim of world supremacy by force of arms finished with the old era, when power politics vaporized with the explosion of the bomb at Hiroshima. The political task of the new era is to turn the powers of science towards the welfare of the people, develop an economy to facilitate the use of the vast new productive capacity of industry to this end, and thereby work towards building a world economic and political unity which will allow disarmament and prevent the risk of civilization committing suicide.

CHAPTER II

The Surplus of the Big Machine

THE PAST: WEAPONS

THOUGH every sane individual would agree that another world war would be the ultimate horror, it is difficult, once an arms race has begun, to stop short of war. The opposing sides, while proclaiming their peaceful intentions, arm as fast as possible in order to get a lead so that they can 'negotiate from strength'. Each tries to acquire such a superiority that it can dictate terms and get what it wants without fighting. However, what has always happened in the past is that the arms race continues at an accelerating rate until the piled-up munitions explode in war.

The soldiers, whose business it is to ensure victory if war comes, naturally want more and better weapons. Their demand meets with some sympathy from industry, because in rearmament and war there is a market for all the military supplies which the 'big machine' can produce. It allows big profits, full employment and good wages. The industrialist does not want war any more than anyone else, but he wants the good business nevertheless.

In the sellers' market during rearmament, industrial potential increases because patents are released and technology is applied without restriction to increase total production and output per man. After war, however, there is not the market to absorb the increased capacity. After the First World War unemployment rose to over ten million in America, two million in Britain and six million in Germany. Attempts were made to stabilize prices

by forming cartels to limit production to the reduced effective demand. The consequent descending spiral was of little cheer to the workers, and it was not till rearmament returned, first in Germany and then in Britain and America, that employment began to pick up again. The Second World War created similar conditions, but with greatly increased industrial capacity. In the USA and Canada capacity at the end was double the 1938 level. For a time it looked as if the aftermath of slump and unemployment suffered after the first war would be repeated. This time, however, a new factor was introduced which alleviated the situation. This was the 'Marshall Plan'. The American author Stringfellow Barr, in his book, *Citizens of the World*, described its effect thus, ' . . . by acting as a gigantic Public Works Administration, it absorbed America's surplus product, and prime-pumped us right out of a threatened depression'. Re-armament for the Korean War still further prime-pumped the economy, and there is little wonder that, when this war looked like ending, an American paper carried a headline 'Peace Scare'.

Without an alternative use to which to harness the Big Machine, if by a miracle the prayer for peace on earth were to be answered and there were suddenly an assurance of no more wars, the loss of markets for arms and the discharge of men from the fighting services would cause complete chaos. Even as it is, with the cold war, and despite the prime-pumping efforts through loans and other Development Aid, the world economy is flagging. Since the end of World War II, except for the period of the Korean War, the trend of prices of primary commodities has been downwards. Demand from industry for these commodities has been insufficient to maintain their prices, and the poorer countries, depending for their purchasing power on what they get for the export of these, have suffered accordingly. For example within the last decade in Brazil, dollar earnings from coffee exports fell from 1,088 million dollars in 1953 to 643 million in 1962 despite a 9% increase in volume

over the period. With a similar situation in many commodities in other countries the gap between the well-to-do and the poorer countries has been widening. At the same time the cost of manufactured goods the underdeveloped countries need to import has been rising and thus still further reducing their capacity to import. In 1957-58, exports from these countries fell 7 or 8% and they lost nearly £700m. import capacity. Consequently the poorer countries have not been able to provide an expanding market for the products of the industrial machine. The market in fact has often been contracting.

This problem today of what to do with the surplus of the big industrial machine and its ever increasing capacity is fundamental to peace. Can the machine be controlled to provide the things man needs, or must it slow down with resulting economic distress, or else be kept going by producing weapons of war for man's destruction? Henry Adams of America in one of his letters wrote, 'Man has mounted science and it has now run away with him. Some day science may have the existence of mankind in its power, and the human race commit suicide by blowing up the world. After us the deluge, or even before.' To avoid the deluge it is imperative to succeed in harnessing science to world-wide development of the earth's resources to meet the needs of man. It would provide a market as big as the rearmament market, and it would pay dividends in life and real wealth instead of death and destruction.

THE FUTURE: WELFARE

Franklin Roosevelt realized that directing industry to supply human needs was the only alternative to either large-scale unemployment or war. During the depression of the early thirties when unemployment was threatening the stability of the State, he said, 'There are so many people ill-fed, ill-clothed, and ill-housed, that if we set out to supply their needs there would be work for every man and woman willing to work.'

If that was true of the USA how much truer of the whole world, where two out of every three people suffer premature death for lack of the primary necessities of life!

In the Atlantic Charter the nations which had united for war gave the pledge for peace of 'freedom from want for all men in all lands'. Agreement by all the great powers to co-operate on an effective plan for this would be hailed with delight by 99% of the world. Freedom from hunger, the first want, must come first. A healthy world agriculture, the largest industry, would put mankind on the road to prosperity and peace. The ancient Chinese were wise people. Their word for Peace is 'Ho-Ping', which literally means 'food for all'.

FOOD, THE BASIS OF SOCIETY

The food supply has been the most important factor in the evolution of human society. The discovery that seeds dropped in the ground can yield a harvest a few months later may be taken as the beginning of civilization. This transformed a food-gathering into a food-producing economy, and wandering tribes into settled communities. As agriculture improved, more men were released from food production to become craftsmen, traders and administrators. Settlements increased in size, and thus arose the ancient cities, some of which, by conquest, became capitals of empires.

There never has been sufficient food for all the people in the world, because population increased faster than food supply. But today modern science has at last made it physically possible to provide all the food required. In the past, a bad harvest always caused famine, which reduced the population to what the available food supply could support. In the Bengal famine of 1769-70 a third of the population (of ten million) perished. About a hundred years later, 1876-78, over fourteen millions died in an extensive famine affecting both India and China. They have occurred in all countries. In the eighteenth century

Scotland had three successive bad harvests and thousands perished. In the potato famine in Ireland nearly a million died between 1846 and 1851. Famines have occurred in some degree at least every other year somewhere, reflecting in acute form the continuing and almost universal food shortage. It is not without significance that in the Lord's Prayer the petition for our daily bread has priority even over forgiveness of sins, a fact worthy of consideration by the churches.

Attempts to solve the food problem have, incidentally, been as important for the development of science as the urge to invent more powerful weapons of war. The beginning of the science of astronomy, with the accompanying development of mathematics, the basis of all the sciences, was connected with the need to predict seasonal changes, so that sowing of crops might take place at the right time of year. This was of prime importance in countries dependent on seasonal rains, like the monsoons and, in Egypt, when the time of the flooding of the Nile determined the time of sowing. Work to secure the food supply helped also to develop engineering. Irrigation systems were constructed and huge reservoirs built, to supply water when rain failed. The storing of food to maintain a regular supply was an important part of government planning and administration, the best known example being Joseph's granary in Egypt. Thus, the never-ending struggle to maintain and increase food supplies upon which the ancient States depended contributed to science which, when applied later to mechanization, made possible the great material prosperity of modern Western civilization. Similar benefits will continue to accrue as we work to provide an adequate world food supply.

Governments have to take considerable responsibility for food supplies, for hunger creates social unrest and revolution. It was the bad harvest in France in 1788, with scarcity and high prices of food in Paris, that precipitated the frenzy of the French Revolution. A mob of women set off for the Assembly to demand bread. They were joined by men. The members of

the Assembly fled, and the mob turned and went to tear down the Bastille, the symbol of power of the government. The The 'Hungry Forties' of the nineteenth century, caused by the sudden rapid increase of population in Europe, were a time of revolution. The Chartist insurrection in England was fomented by hunger. Mobs in the industrial towns of the north chanted 'Bread or Blood!' When food became more plentiful and cheaper the revolutionary movement was succeeded by a relatively peaceful period of social progress.

Hunger is the main factor of the unrest in Asia today. Poverty-stricken people have begun to realize that the food can be produced and that their plight is not due to an act of God, to be accepted with resignation, but to selfishness or mismanagement of rulers. Hungry people judge a government by the food it makes available. In the present conflict, which is being fought on the unrealistic basis of ideologies, the real deciding factor will be the food supply. It is said that if you offer an Asian the Four Freedoms or four sandwiches he will take the sandwiches. The real battle for Asia is the battle of rice. If China can supply more rice on more generous terms than does the Western World, no military force will prevent South-East Asia drifting into the sphere of influence of China.

While maintenance of a reasonable level of food consumption is vital for social stability, development of food production is as important for economic prosperity especially when there is no arms race. Attempts in the past to bolster the economy through international agreements to limit production, by means of cartels, have been made even with food. In an agreement with Denmark, the policy meant that the British would get less bacon and the Danes less coal, while the economic systems of both countries would be better stabilized. As a temporary way to prevent catastrophic falls in prices this might be justified. As a more permanent measure, however, to limit production of real wealth to support economic systems, which are presumably meant to facilitate the production and use of real wealth, would

be lunacy. The solution lies in the opposite direction: to evolve a world economy which will provide rapidly expanding markets among those in need, commensurate with the rapidly increasing industrial potential.

The challenge and the opportunity can be found in food and agriculture. Twice the present food production will be needed in the immediate future and three times by AD 2000. Many more times the present quantities of industrial equipment and supplies are needed to develop agriculture to produce all this extra food. Moreover, two-thirds of the world are engaged in agriculture and the vast majority of food producers live in abject poverty, with annual incomes per caput equivalent to sums between £30 and £40. If by increasing efficiency of food production and by other aid the incomes of these were doubled, though this would still be very low, there would be a new large market for domestic goods. Increasing the world's food supply to meet human needs would allay social unrest and provide an adequate market for the Surplus of the Big Machine for decades to come. It is a formidable task but with the determined co-operation of all countries, a possible one. And how much better it would be to sink our differences and work together, than pile up weapons of war and argue about how to prevent using them. It is in fact the only alternative. At present we employ a disproportionate amount of our best brains and energies to this negative end. Some could well be turned to the process of achieving the constructive positive one of feeding the people. As the movement develops, the present economic means and political systems would become markedly modified. The changes would be forged on the anvil of world unity. Eventually little would be recognizable of the old Capitalism or the old Communism.

CHAPTER III

Freedom from Hunger

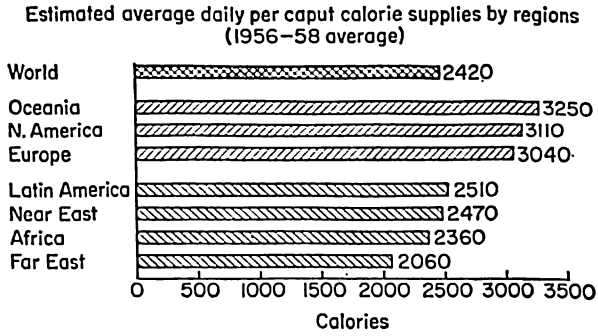
THE SIZE OF THE NEED

THE word Hunger, though it conjures up for us the feeling of shortage of food, is really a misnomer in this context but is used for want of a better one. When people are starving they do not feel hungry. When they continually do not get enough food to replace normal energy output, they perforce reduce their energy output. This accounts for much of the supposed laziness of the masses in the underdeveloped countries. It takes strong stimuli to overcome their inertia, with the result that when they do exert themselves it is usually violently or riotously. The diets of over 400 million people are so low as to be conducive to such a pattern of behaviour of lethargy with periodic hyper-excitability.

The figure on p. 29 shows the estimated average per caput daily calorie supplies by world regions (1956-58 average). There is a gap between the levels of North America, Oceania and Europe which are over 3,000 calories, and those of the Near East, Latin America, Africa and the Far East which are under 2,520 and insufficient. Thirty per cent of the world are above the gap and 70% below.

Apart from getting a sufficient quantity to replace energy output there is need of quality to provide for building and for the maintenance and repair of the fabric of the body. Certain of the amino-acids of proteins, the vitamins and minerals are essential for life. While their absence causes death their insufficiency causes diseases or lack of positive health, varying

according to the degree of shortage. Any serious deficiency of these body-building constituents in growing children is practically irreparable. Unfortunately the low-calorie diets are the ones also shortest of the 'protective' foods which are rich in these body-building constituents. The diets of those in this group are poor therefore both in quantity and quality.



To raise the calorie supply by the simplest means, which would be to provide more of the high energy-bearing foods such

as cereals and fats, is not the answer; for these foods are low in the body-building constituents, and already the proportion of cereals is dangerously high at over 60%, a maximum even for animals. Nor will it suffice to provide the 'protective' foods, such as animal products, in place of the higher energy foods. On the contrary, they must be added.

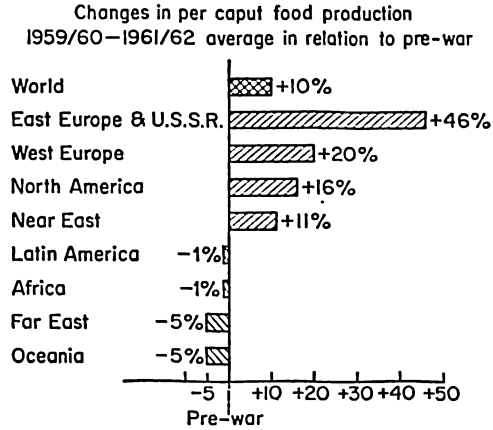
To get the grown animals, as a source of protective food, they must first be bred and fed. This is costly in land, for producing fodder, and consequently also in price. The end product may then cost more than those who need it most can afford to pay. A socio-economic problem is therefore superimposed on the biological. Some fruits and vegetables, however, have protective proteins and other valuable constituents and these need not all be so expensive as animal products. The per caput supplies of total proteins in the low group are two thirds the level in the high, while the fraction for proteins of the more valuable animal sources is only one fifth. To make up the present deficit and for the future, more of both sources is required. A health standard for all is the ultimate object. Farmers in this country would never think of setting a lower target for their cattle, nor military authorities for army mules.

Meanwhile the world population is increasing at the rate of 1·8% annually, and considerable increases in food supplies will be required even to keep pace with the greater number of mouths to feed. Dr B. R. Sen, Director-General of FAO, in his *Third World Food Survey* sums up the situation, estimating that by 1975 world food supplies would need to be increased by over 35% merely 'to sustain the world's population at its present unsatisfactory level of diet'. If in addition a reasonable improvement in nutrition is to be brought about, world food supplies would have to be increased by over 50% and animal products by some 60%. In the less developed areas, where the population increase will be faster, the corresponding figures are much higher, namely about 80% and over 120%. Looking further ahead, by the year 2000 the world's total food supply

would have to be trebled, and for less developed areas quadrupled, with animal products six times the present volume.

THE INADEQUACY OF THE PROGRESS

World food production since before World War II has increased by over 50%, but, taking into account the growth in population, this increase only amounts to 10% per caput. Of the increase the most has been enjoyed by Eastern Europe and USSR, while the pre-war deficient continents of the Far East, Africa, and Latin America now have even less per caput than before. The figure below shows the changes.



In Oceania (New Zealand and Australia) the fall per caput is not serious in view of the high diet still enjoyed, and indeed they continue to export nearly half their total production. In all regions production has increased, and in Latin America more rapidly than anywhere, to 70% above pre-war; yet even this has not been enough to offset the exceptionally rapid increase in population there. The International Federation of Agricultural Producers (IFAP) estimate that in 1963/64 the increases in world production will not be sufficient to offset increases in population.

While the overall rate of progress is too slow to meet world requirements for an adequate diet within a reasonable time, the most serious situation lies in the underdeveloped regions, in most of which there is regression compared with pre-war. The gap between the 'have' and the 'have-not' nations has thus in food, the first want, been widening. Such a dichotomy of human society is untenable in the new era. It is the underlying cause of present unrest in the world and can only be solved by much more effective international action than has been hitherto forthcoming. Strong international action is required not only for increasing food production but also to help the poorer countries raise their purchasing power to import what they cannot themselves produce.

Overall, there are two major biological problems which must be tackled. One is the accelerating rate of growth of the world's population. Much of this is due to reduction in death rates, though the most rapid increases are in the areas of greatest poverty, where birth rates are high. The other is that with daily more mouths to feed soil erosion has steadily and for a long time been reducing the fertile areas. The rising tide of population, with a falling reservoir of food resources, makes a grim picture. But the obstacles are not insurmountable.

CHAPTER IV

Biological Obstacles

THE RISING TIDE OF POPULATION

THE first recorded census was made in Babylon over 4,000 years ago. Since then nearly all great States for military, taxation or other purposes have made a census. Rome made a quinquennial one. In AD 5 it was extended to the whole Roman Empire. After the fall of the Roman Empire there was none taken in Europe until the eighteenth century. The first in Great Britain since the Roman occupation was taken in 1801. Recently the number of countries taking periodic censuses has increased, and, with United Nations' help, the enumeration has become more accurate. There are now reliable figures for about two-thirds of the world, and expert studies covering the remainder allow reasonably accurate estimates for the modern world. Figures for prehistoric times are of course merely intelligent guesses.

In common with all other animals, and even with plants, changes in numbers in any locality have, in the past, varied with the food supply. Up till about 8000 BC primitive man depended for his food on what he could gather from natural sources, and the total world probably did not exceed five million. Then, as hunting, animal husbandry, and finally agriculture in settled communities developed, the population grew with the food supply. But the rate of growth was slow until recent times, since when it has proceeded at an ever accelerating rate. The following table gives estimates of population figures from prehistory through recent times and projected to the end of this century, assuming the continuation of present trends.

Date	*Interval Period—Years*	*Population —Millions*	*Annual Rate of increase*
BC 8000		5	
5000	3,000	20	5,000
1000	4,000	100	20,000
AD 1	1,000	200	100,000
1650	1,650	545	200,000
1750	100	728	1,830,000
1850	100	1,171	4,430,000
1950	100	2,400	12,300,000
1975	25	3,938	61,500,000
2000	25	6,441	100,000,000

In the 3,000 years between 8000 and 5000 BC the average increase was probably only about 5,000 a year. In the 1,000 years before the birth of Christ, the annual increase was around 100,000. From the mid-eighteenth to the mid-nineteenth century it was an estimated $4\frac{1}{2}$ million, and for the next hundred years, $12\frac{1}{2}$ million. Now it is over 50 million and may rise to as much as 100 million a year.

The mushroom growth in the last 200 years was made possible by the increased food production due to the advance of agriculture, especially in Europe where the most rapid growth of population took place, and also by the opening up of the new continents of America and Australasia. These drained off the surplus population from Europe, and exported food to Europe from their new, virgin, lands. Today, with no new continents to be discovered, the high growth-rate is probably the most important long-term problem facing mankind.

The rates of increase are not uniform throughout the world. They are affected by changing social and economic conditions. There are three main phases in the chronological pattern; first a slow increase, followed by a very rapid one, and lastly an arrest of growth tending to a decline.

The first phase occurs under primitive conditions, where owing to shortage of food, to disease and other evils of ignorance, life is 'short and brutish'. The death-rate is high. Of children born less than half survive. This is more than compensated by a high birth-rate. Nature in the raw seems more interested in ensuring the survival of the species than of the individual. In Africa, up to this century, growth was in this first phase. In 1850, however, the population was the same as in 1750, about 95 million, since the slave trade, which at its height took nearly 80,000 a year, drained off the small natural increase.

The second phase comes with the application of technical knowledge in food production and in control of disease. The death-rate falls, but the birth-rate continues high; and so numbers increase rapidly. In England and Wales in the nineteenth century numbers rose from 9 to 34 million. The rate of growth was even more rapid than appears since, in this time, many more emigrated from the country than immigrated into it. Between 1857 and 1880 alone, 2,466,000 left. The alarming feature of the present situation is that practically all countries that have not already done so are entering this second phase of population explosion. Practically every country is eliminating preventable disease, and before the end of this century the world may reach over 6,500 million, or triple the pre-war number.

The third phase comes with a rise in the standard of living and education. The birth-rate falls and the rate of growth slows down. The following table shows the fall in the rate of increase in England and Wales on entering the third phase:—

Period	*Rate of Increase per 10,000*
1871-1880	140
1901-1910	118
1931-1940	27

Estimates of future rates of population growth have to be calculated on the proportion of women of child-bearing age. In 1880, when England and Wales was increasing fastest, the factor was 1·52. Now it is 0·78, the rate of level replacement of a static population being 1·0. Although there are larger numbers of women, the rate of increase is not rising because more of them are beyond child-bearing age. As old people must die some time there will come to be an increase in the number of deaths, resulting in a fall in the population. According to projected trends, the present population will have fallen by nearly 15 million to about 30 million by the year 2000, and it will be a population with a very high proportion of old people. It is expected that there will then be about six people over sixty-five for one under fifteen.

Human nature is pretty much the same in all races, and the factors which brought about the fall in the birth-rate in Britain and other Western countries, are likely to work in other regions when the same high standard of living and education is attained. It is significant that in Japan, which over the turn of the century had a meteoric rise in the second phase of growth, the birth-rate began to fall in the 1920s. On this general assumption the population problem will be solved when the promise of the Atlantic Charter, 'Freedom from want for all men in all lands', is fulfilled. That, however, may take some generations to accomplish, and it seems probable that the world will meanwhile continue to grow to perhaps 7,000 millions before it becomes static. This only emphasizes the fact that the sooner we manage to raise the standards of living of the poorer countries in this second phase, the easier the future task of feeding the world. Let not our epitaph be 'too little, too late'.

Birth control is a factor the spread of which can help. However, it is doubtful how much its use will spread where it is most needed, that is among the poverty-stricken masses, so long as a large family is to the parents more of an asset than a liability.

The wealthy nations, who are in the third phase and have a

large and growing proportion of old people, have lost much of their adventurous spirit. They are naturally opposed to the risks of change. Yet science has forced change on us, and unless the challenge to adapt with appropriate new economic and political systems is met, our civilization is doomed. We have the power, the knowledge, and experience. What we need is vision, with moral and spiritual leadership.

THE FALLING RESERVOIR OF FOOD RESOURCES

The number of people the earth can support depends on the extent and quality of the fertile land, mankind's most valuable asset. In wide areas it is a wasting asset through soil erosion and deterioration in quality, due to destructive methods of cultivation.

Though the occurrence of soil erosion has long been recognized, it was not until 1934 that this threat to the world aroused public interest. In that year the sun in the eastern states of America was darkened by dust-laden clouds. The dust was the fertile top-soil of the western states, where once fertile lands had become a desolate dust-bowl.

In its natural condition the land is protected by vegetation, which acts like a sponge, holding the rainwater and giving it time to percolate to underground reservoirs. When trees are cut down on sloping ground, rainwater, instead of being absorbed, runs down the slope carrying the top-soil away with it and flooding rivers. In semi-arid areas, when the protective surface of vegetation is removed in cultivation, high winds carry off the fine dry top-soil in dust-storms. Overgrazing, especially with sheep and goats, which eat the vegetation down to the roots, has the same effect as over-cultivation.

The top-soil is literally alive with bacteria, protozoa, worms and other forms of life. These are essential for maintaining and increasing its fertility. When this living layer is carried away there is left the dead sub-soil, on which nothing will grow.

Soil erosion, which is caused by the pressure of population on the land, is a disease of civilization. When, in the fourth century BC, Alexander the Great entered India by the Khyber Pass, and marched his army to Karachi, the land was said to be well wooded. Soil erosion has taken its toll, and today archaeologists are finding in the desert of Sind relics of what must have been an advanced state of civilization. About 2,000 years later, the Emperor Jehangir recorded in his memoirs that when he built the castle Namur for Queen Nurjehan, the forests were so thick that a bird could hardly spread its wings. Now, some 500 years later, there is nothing but denuded hill country. The deterioration continues. The Rajasthan Desert is said to be creeping southward at the rate of a mile a year. Fairfield Osborne has given a vivid description of the result of soil erosion in Asia, of lands which once supplied timber to Egypt and great quantities of oil and wine to Rome. So much of the rich brown soil has been lost that the buildings in ancient cities, and old roadways, stand two or three feet above the land. Archaeologists' findings show that the Turkmenian Desert, between the Caspian and the Aral Seas, was once cultivated.

Owing to the reduction in the food supply, such countries cannot now carry the population they once did. Iran, which once had 40 million, now holds a quarter of this. Palestine, 2,000 years ago a land flowing with milk and honey, must have carried many more than today. The military census of King David showed Israel with 800,000 valiant men who drew the sword, and Judah with 500,000. With that number of men between the ages of, say, fifteen and fifty, the total population must have been about 3 million. In 1920 the population was only 757,000.

As the centre of civilization moved west, the growing towns repeated the process. Plato describes what took place in Greece:

> When Attica was still intact, what are now her mountains were lofty, soil-clad hills; her so-called shingle plains of the present day were full of rich soil, and her mountains were heavily afforested, a fact of which

there are still traces. There are mountains in Attica which can support nothing but bees, but which were clothed, not very long ago, with fine trees, producing timber suitable for roofing the largest buildings; the roofs hewn from this timber are still in existence. There were also many lofty cultivated trees, while the country produced boundless pasture for cattle. The annual rainfall was not lost, as it is at present, through being allowed to flow over the denuded surface into the sea, but was received by the country, in all its abundance, into her bosom where she stored it in her impervious potter's earth, and so was able to discharge the drainage of the heights into the hollows, in the form of springs and rivers with an abundant volume and a wide territorial distribution. The shrines that survive to the present day on the sites of extinct water supplies are evidence for the correctness of my hypothesis.

Athens solved its food problem for a time by exports, with a corresponding import of food; Sparta by conquest. Greece, which once supported a prosperous people with a level of culture and creative intellectual life that has never been surpassed, is now a poverty-stricken country with poor soil, giving an average wheat yield of twelve bushels, or about a quarter of the yield of moderately good land.

Rome, as population grew, imported food from several countries to an extent which robbed their fertility. In North Africa, once the granary of Rome, large areas covered with forests, from which Hannibal got his elephants, are now without trees, and the fertile lands that produced the wheat are now barren. Of the cities of Curical and Timbad, founded by Trajan, there is now nothing to be seen but ruined buildings in a waste of shifting sands.

As these Mediterranean States declined, the centre of power and population growth moved northwards into Europe. There the colder climate, with a relatively regular rainfall all the year round, and a system of agriculture which maintained the humus in the soil, protected the fertility of the land. Food shortage during the rapid population growth of the nineteenth century was relieved by imports from America and Australasia, and by emigration. Imports of timber saved the forests from the wholesale destruction which had taken place in the East.

North America was not so fortunate. The virgin land, instead of being cultivated on the European system, was 'mined'. By the beginning of this century the Americans had reached the Pacific. There was no more land to be ravaged, with the result mentioned earlier. In eloquent terms Tom Gill, the well-known authority on forestry, gives a picture of soil erosion in Mexico. After describing the desolation of a plateau with its abandoned cornfields, he writes, 'Still further on, you drop over the rim of the plateau toward the City of Mexico, and even at mid-day, if the wind is up, you may have to turn on the lights of your car, for dust-storms are whirling across the city, blown from nearby lake-beds once filled with water but now dry as any desert because of forest destruction.'

The picture is as bad or worse in parts of Latin America, Africa and China. According to Milton Eisenhower, 'It is probable that since the dawn of history . . . man has destroyed as many productive acres as now exist in the world, and this destruction has contributed mightily to the decline and fall of civilisations.' This may well be true. There are today only 8,000 million acres under cultivation, while there are 12,000 million acres of desert, probably the greater part of which was man-made. Man must now reverse the process.

CHAPTER V

Malthus versus Science

BIRTH-CONTROL

CONSIDERATION of future food requirements and the colossal rate of growth of population has raised again the spectre of Malthus. About the time of the French Revolution the Marquis de Condorcet, mathematician and philosopher, expressed high ideals which he and other leaders of the revolution hoped would be realized. War, poverty and most diseases, he felt, were intolerable evils which could be eliminated from society, and mankind should be advancing to a state when these would disappear, with equality of opportunity for every citizen. This idea was spreading among liberal-minded intellectuals in England, like William Godwin, a friend of the Rev. Thomas Malthus and Dr Priestley, the discoverer of oxygen. In 1798 Malthus, a pioneer in economics and a man of sincerity and ability, published his famous *Essay on the Principles of Population as it affects the Future Improvement of Society, with remarks on the speculations of Mr Godwin, Mr Condorcet and other writers*. He argued that abolition of hunger and poverty would not be easily attained, because population tended to increase more rapidly than the food supply, and that hunger for large numbers was inevitable, unless the increase could be slowed down by birth-control.

Today, with a much faster increase, the Neo-Malthusians are carrying out campaigns for birth-control. Nehru and Mao Tse Tung advocate it for their nations. The Roman Catholic Church, however, prohibits the teaching or practice of contra-

ception. Nations preparing for, or threatened by, war tend to do all in their power to increase their population for man-power and cannon-fodder. Furthermore, among the poor who are unable to make savings, a large family is an asset. Hence birth-control makes slow progress, except among those with a high standard of living, and these are the people upon whom the advance of civilization depends.

Vogt, an authority on soil erosion, advocates drastic measures in his book *The Road to Survival*. He suggests that the elimination of preventable disease, and the sending of food, or means of increasing food production, to countries suffering from food shortage, should be stopped until disease and famine have reduced numbers to the level those countries can support. Then they should be kept down by a vigorous policy of birth-control. But today the people of these countries, who outnumber the well-fed in the world by two to one, will not die quietly.

It is important that simple oral or other inexpensive, safe contraceptive means should be made available to all who cannot support a large family; for bringing into the world children destined to a short life of hunger, misery and disease cannot be other than evil. Their use, however, is bound to be voluntary. Short of adopting Vogt's drastic proposals, and until standards of living have been raised to the point where children become a financial liability, incentives will have to be offered, as is done now in China. Meanwhile the death rate in the underdeveloped countries will be falling; for, as Professor Ritchie Calder points out, we have gone further with death-control than with birth-control. We need a crash programme of development with ancillary birth-control campaigns in order to catch up.

Japan has caught up. In the 1950s under desperate socio-economic stress, and in the absence of birth-control information, abortions became prevalent. Induced abortions rose to over a million a year while large numbers of women resorted to sterilization. The birth-rate fell from 28·3 per thousand in

1950 to 17·2 in 1957 and has remained low, so that population growth has become nearly static and will soon start to decline. Meanwhile the Government, while not forbidding abortion, is doing all it can to encourage contraception.

Many developing countries of Asia and the Far East, encompassing over two-fifths of the world population, have been changing their population policies. The USSR and Nasser's United Arab Republic as well as Japan, China and India are all making propaganda for birth-control. In India, as Bertrand Russell points out, a combination of economic and ideological reasons have so far led, unfortunately, to the adoption of ineffective methods. Conditions may not be so conducive to rapid results in countries other than Japan. However, the significance of birth-control for economic and social development is recognized by the governments of these countries, and a start is being made in the East.

FOOD PRODUCTION

It is evident, from what we have seen of present population trends and inadequate world food supplies, that even with the most optimistic expectations of birth-control it will be necessary to more than double present food production. We can apply science in many ways to achieve the increase.

1. Urgent action is needed to reverse the process of soil erosion. This is a task well within the power of modern engineering. The destructive forces of river waters liable to flood can be harnessed and transformed into electricity, while the controlled outflow can be used for irrigation. In parts of the world where there is a heavy periodic rainfall, such as the monsoons, followed by a long dry season, rain can be stored in reservoirs and used for irrigation during the drought. Such engineering projects, coupled with improving methods of agriculture in semi-arid areas, reafforestation of denuded hills,

and planting of trees as windbreaks, can put an end to soil erosion and reclaim areas which were once cultivated and are now deserts.

Work of this kind is already bringing fertility to many millions of acres. In the United States, the Boulder Dam harnessing the Colorado river and storing enough water to cover 30 million acres a foot deep, is surpassed by the Grand Coulee dam on the Columbia river and the still larger Fort Peak dam. The best known, however, is the Tennessee Valley Authority project, a great achievement of American engineering and administration, rightly held up as a model for developments in other, similar parts of the world. In the USSR there are one million square miles of desert and steppe subject to drought. In the southern Ukraine there is a drought about one year in three. For irrigation and hydro-electric power the rivers flowing to the Arctic, the Baltic and the Caspian seas are being harnessed in a unified plan. The scale of the project is gigantic. With it there is afforestation of 14 million acres with 3,300 miles of major tree belts.

The vast territories of America and Russia, with correspondingly vast industrial resources, each under one central control, lend themselves to large-scale projects. China, though lacking the resources, has built large dams on the Huai river which prevent flooding of the Yellow river and provide irrigation. Other continents are equally in need. However, apart from Australia, where the Snowy Mountain Scheme with its seven dams and sixteen power stations may be a greater engineering feat than any, development is often handicapped by political boundaries and inadequate financial and industrial resources. International co-operation through UN for schemes in progress or planned in Africa, the Near East and the Indian subcontinent is helping, and with other types of projects could do as much for the world food situation as agricultural development of the new continents did for the food shortage of Europe in the nineteenth century. The projects would call for huge

quantities of steel and industrial products of the western world, otherwise the surplus of the Big Machine.

An altogether different source of much needed water is the sea. The Weitzmann Institute in Israel has devised a method of taking salt out of sea-water. There, and especially in America and Australia, research is being energetically pursued to find an economic method of large-scale de-salting. It raises the prospect of deserts like the Sahara being irrigated by water pumped from the sea, and becoming again the fertile lands they once were.

2. So far we have considered only engineering projects. Agricultural science, if applied to the land already under cultivation, could alone double the world food supply. In Western Europe, where the humus content of the soil is preserved, and balanced fertilizers are used, the yield of wheat averages about 22 cwt. an acre. On the best farms it is over 30 cwt. In most other regions, including America and Australia, the average is little more than half Europe's. In India and Pakistan, using fertilizers, especially nitrogen, by extension of the practice of composting and green manuring to put humus into the ground, and also by use of better seeds, the yield could be substantially increased. On demonstration plots and on well-managed estates, where these and other improved methods are applied, the yield is about 50% higher than on land with similar conditions where they are not yet applied. Recently discovered methods of controlling diseases in plants and animals could be used to increase production in different countries by from 10 to 50%. The plant breeder is continually bringing out new varieties with higher yields and more resistance to disease. An excellent example was the hybrid maize brought out by Henry Wallace, Secretary for Agriculture in Roosevelt's government. This increased yields by from 20 to 40%. Another is the new US wheat known as Gaines; bred from the short-stemmed Japanese variety Norin 10, which will stand massive doses of nitrogen and is found in trials to

give three to four times normal yields of other varieties.

Likewise animal products can be increased extensively. Milk yields of cows and buffaloes, and the rate of growth of meat animals can be improved by selective breeding. Pastures can be improved to supply the necessary feed. Even in Europe there are some 50 million acres which could be increased by 40%, but in Latin America and in South-east Asia the potentialities of improvement are tremendous. The means are being applied, but at far too slow a rate and not extensively enough. By a concerted attack to improve feeding and control disease the world supply of milk and meat could be more than tripled on the present acreages, let alone what could be brought into use. The oceans and inland waters can provide many times the present catches if properly farmed. Moreover fish provide good protein, especially valuable in places where livestock are scanty and people's diets are specially deficient.

3. If the farmers and fishermen should fail to feed the world, we could call in the chemists, who can synthesize nearly all the constituents except the minerals, of which there is no shortage. In Sweden, during the last war, sawdust was converted into feeding-stuffs for cattle and into food for people. It is in fact possible to produce food without farm crops. The energy yielding constituents of food are produced by the plants through harnessing solar energy. Only a small fraction of the energy which reaches the earth is converted into food for human beings and animals. Chemists are experimenting with producing food from chlorillo, a unicellular fresh water organism which can use 30% of the light, against only one per cent used by plants. Likewise chlorophyll, which transforms solar energy into food in plants, may be synthesized and so make it possible to produce food without agriculture.

Thus, with modern agricultural, engineering, and chemical science, the only practical limit to food production is the

amount of capital, labour, and research we are willing to devote to it. The spectre of Matters could be laid. Yet so far we have applied our knowledge very scantily, and production has never been geared up to full speed. The target in Western civilization has been, not the amount needed to supply human needs, but the amount that could be sold at a profit. In the UK, since about 1820, when, owing to the import of cheap foods, prices fell, the acreage cultivated was contracted to that of the best land, where the cost of production was lowest. About 4 million acres went out of cultivation. The same happened in America in the 1929-32 slump, when food was selling at less than the cost of production. Under the mediaeval system of land tenure in Eastern countries, production has been restricted not only by lack of knowledge and the means of applying improved methods, but also because the cultivator, who was left with only sufficient to live on, had no inducement to increase production that benefited only the landowners. If there were a guaranteed market at a price which would yield a return on capital comparable with that of oil, said to be 17%, the world food shortage would not last long.

Modern science has the answer to Malthus, but it has to be applied on a world scale. Much of the industrial output now devoted to armaments would need to be diverted for the purpose. And so we come back to the fundamental question, upon the answer to which the future of mankind depends. Will governments co-operate to apply science to promote the welfare of the peoples of the world, or, in rival groups, apply it to their mutual destruction? If moral and ethical principles were the guide to foreign policy there is no doubt what the answer would be. The aggression of hunger and poverty, which causes the premature death of two thirds of the world, is a greater menace to health and happiness than the cold-war aggression of either Communism or Capitalism. Apart from moral principles, intelligent self-interest should induce the highly industrialized countries to co-operate in abolishing

hunger and poverty; for these are a growing threat to the security of the prosperous third of the world, a proportion, moreover, steadily dwindling since the poorer populations grow at double the rate.

One must not under-estimate the difficulties. These are greater than they were at the beginning of this century, when there was freer world trade and emigration from overpopulated areas; and since the war the gap in the standards of living generally as well as in food, between the developed and the less developed regions has been widening. In this now small world man-made economic and political barriers are the main obstacles to the application of science to free the world from hunger. With international co-operation they can be overcome.

CHAPTER VI

International Approaches

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

THE first attempt to bring about international co-operation was made by an American, David Lubin. He believed that agricultural prosperity is the basis of industrial and commercial prosperity. Through his tireless efforts the IIA was founded in 1905. With a staff of a hundred it collected, analysed and distributed statistical, technical and economic information. It studied agricultural co-operative schemes and the promotion of measures for the benefit of farming. It helped to draft legal agreements between countries on matters dealing with food and agriculture. The Institute survived the war on a restricted scale with the aid of the Axis countries, and was absorbed, together with its extensive library, by FAO in 1946.

THE LEAGUE OF NATIONS

The world food problem was first brought into the political arena by Yugoslavia in 1925. She proposed that the Health Section of the League of Nations should examine and report on all aspects of food for health. The Health Section sent two of its officers, Dr Aykroyd and Dr Burnet, to a number of countries to investigate the state of nutrition of the people. Their report in 1935 gave the first synoptic account of the extent of hunger and malnutrition in the world.

The report attracted the attention of the late F. L. McDougall, then economic advisor to Mr S. M. Bruce,

formerly Prime Minister of Australia, who was their High Commissioner in London, now Viscount Bruce of Melbourne. Lord Bruce had attended the Ottawa Economic Conference in 1933 when, as a result of the world economic crisis, there was widespread unemployment and a shrinkage of international trade. The only remedies being tried were tariff barriers with other measures to restrict production in order to raise prices. Bruce uttered the solemn warning that an economic system which restricted production and distribution of the things the majority of mankind urgently needed was one which could not endure. He predicted disaster unless means were taken to develop the potential wealth of the world in an expanding economy. This prediction was fulfilled by the Second World War.

Earl De La Warr, now Chairman of the UK Freedom from Hunger Campaign, who was then Under-Secretary for Agriculture, like the Minister, Mr Walter Elliot, saw that the problem of the 'glut', with its fall in prices paid to farmers, was one of under-consumption, not over-production. Bruce and De La Warr introduced the subject to the Assembly of the League. To the immense surprise of the secretariat, the debate aroused considerable enthusiasm and lasted three days. It was argued that increasing food production to meet human needs would bring prosperity to agriculture, which would overflow into industry and create the expanding economy the world needed. Lord Bruce epitomized the new aspect in the memorable phrase, 'The marriage of health and agriculture.'

An international committee of physiologists, including Americans and Russians, was set up. In their report, *The Physiological Bases of Nutrition*, they established the first International Standard of Food Requirements. Then a Mixed Committee on the Problem of Nutrition was appointed to make recommendations on every aspect including production, transport and trade. It consisted of world leaders in nutrition, agriculture and economics. Their report stimulated the interest

of governments, and a conference was being called to consider implementation of its recommendations when the outbreak of war in 1939 put an end to this promising movement for collaboration.

THE ATLANTIC CHARTER

After the outbreak of war the scene moved to America. Dr Frank Boudreau, who had been Director of the Health Section of the League and was Director of the Millbank Memorial Fund, used his good offices to bring over some of the Europeans actively interested. Together with American counterparts they discussed the League's work on food with Mr Henry Wallace, the Vice-President, and others of the US Government. Mr McDougall was able to raise it with President Roosevelt himself. They urged that, to give effect to the Atlantic Charter's promise of freedom from want for all men, since food is the first want of man, to establish a world food policy would be the best way to begin. In agreement with this, the President's first action towards establishing a United Nations Organization was to call a conference of nations on food to meet at Hot Springs. The Conference recommended setting up an international agency concerned with Food and Agriculture and they instituted an Interim Commission to prepare the way.

THE FOOD AND AGRICULTURE ORGANIZATION

The Interim Commission of national representatives, including one from the USSR, outlined the kind of organization they considered suitable, and wrote out a Constitution for a Food and Agriculture Organization, to be a specialized unit of the envisaged United Nations. Accordingly, at Quebec in October 1945, delegates from forty-four Nations under the Chairmanship of Mr Lester Pearson, now Prime Minister of Canada, set up the organization known as FAO.

The Constitution proposed by the Interim Commission and accepted at Quebec amounted, however, to an impossibility. Members had called for freedom from hunger for all men, but to the body which was supposed to effect this they gave only advisory powers.

In the course of discussions at the Quebec Conference, the wide variety of opinions expressed were leading nowhere until Sir John Orr, who was present as a UK Observer only, since the Government would not have him on the official delegation, was asked to give his views. He pointed out that to increase the world food supply sufficiently, and to raise the standard of living of food producers, would need more than publishing statistics and technical documents, promoting research, giving technical advice and holding annual conferences. This indeed had been done by the IIA at Rome decades earlier. FAO would need to have funds and authority to take action itself, or be able to promote an agency which could. He thereupon walked out; only to find that the conference had promptly and unanimously voted to elect him the first Director-General. Realizing that the Conference could not agree on anyone else, and as the delegates at least seemed to agree with his approach, he accepted the post until the Member Nations could find a replacement.

THE INTERNATIONAL EMERGENCY FOOD COUNCIL

The first action of FAO was to form the International Emergency Food Council, an agency with powers to cope with the immediate short-term chaos caused by the dislocation due to the war. The devastation in both Europe and Asia this time was much worse than in the First War. Total food supplies had fallen badly, despite the rise in production in North America. International action was urgently needed to deal with this crisis. Governments like the UK, however, which feared interference with their own national food supply arrangements, exerted pressure to try to prevent a meeting being called, on

the grounds that FAO was only to be concerned with long-term problems. The Director-General nevertheless invited the main food importing and exporting countries to meet in Washington in May 1946. There it was decided that immediate action was needed. Since FAO's constitution gave it no authority to take executive action, the IEFC, staffed and financed by FAO, was set up to distribute exportable food in accordance with the needs of countries, and to take measures to prevent panic rocketing of prices. That Council, with a membership of some thirty nations carried on the work with success for about three years, until the acute phase of the post-war crisis had been overcome.

Thus, though hamstrung by its Constitution, the Director-General of FAO had taken responsibility for a serious food emergency and used his office to create an effective temporary action agency. Under his responsibility for the bigger long-term food problems, he took the opportunity at the May meeting in Washington to point out that a permanent action agency with much greater funds and authority would be needed to meet the challenge of the Atlantic Charter. Accordingly he was asked to report on this to the first full Conference of FAO.

CHAPTER VII

A World Food Board

THE PROPOSAL, 1946

CLEAR as it was that FAO, as constituted, could not achieve the objective expected of it, it was equally clear that even a food agency with the necessary powers would have to work with other UN Agencies, Funds and Services. They would have to help develop the ancillary sectors of the economy. The main increase in food production must take place in the underdeveloped, food-deficient countries. These lack the industrial products, such as fertilizers and agricultural equipment to improve land already under cultivation, let alone the major engineering equipment for water storage and the irrigation of potential food-bearing land. Neither have they the equipment for the ancillary industries making and maintaining machinery for storage, transport and distribution. In many countries industrialization is needed both for the sake of agriculture and in order to draw into industry the surplus population on the land.

Given time the underdeveloped countries could develop their own industries, but it would take place too slowly to catch up with the food problem. Industrial equipment had therefore to come from the highly industrialized countries. The international agency for arranging this was available; for the Economic and Social Council of the UN was established to direct industry and trade to social ends. The countries in need had not the funds with which to purchase, but the International Bank for Reconstruction and Development (IBRD) was created to

arrange the necessary credits. The international agencies for a rapid increase in world food production in proper relationship to industry and world trade were thus available, at least in embryo. Close co-operation between them was needed in an overall development authority which would begin with agriculture, the basic and biggest industry.

With these considerations in view, the Director-General of FAO prepared proposals. The main feature was the co-operation of the nations in a World Food Board which would unify some of the work of FAO, the Economic and Social Council (ECOSOC), and the World Bank, and would have funds and authority to carry out the following main functions:

(i) To assist with credits, industrial products, and technical assistance, countries asking for help to develop agriculture and ancillary industries.

(ii) To buy and hold in reserve storable food and other agricultural products, which, after a bumper harvest, or for other reasons, could not be marketed immediately; to release from this world reserve, the products in short supply after a bad harvest in any area; by these and other means to stabilize prices in the world market within given limits, and so provide a guaranteed world market for agricultural products at a price fair to producers and consumers. (It was realized that trade in agricultural products can best be carried on through normal business channels, the Board intervening only when necessary to prevent wide fluctuations in prices, which is bad for agriculture and for industries using the products, such as wool, cotton and jute.)

The credits given by the Board were to be on a business footing, the countries receiving them being committed to pay interest and to begin to refund the loans as soon as the resources were developed enough to let them do so without seriously halting

the rise in the standard of living. The underdeveloped countries are not without resources to do this. South-east Asia exports about three quarters of the total world exports of natural rubber, jute and tin, and about one third of the fats and oils. The mineral and other natural resources of the underdeveloped countries have never been properly surveyed. There is reason to believe that some have potential resources as great as the wealthy countries, and they have an abundance of cheap labour. With proper help their progress could be at least as rapid as that of Japan in the late nineteenth century.

The funds needed by the Board would be large, but the prevention of wide fluctuations in prices requires management only on the small proportion of the products entering international trade (some 5%). Once the initial development was on the way and world prices were stabilized, the business world would have the confidence to invest and create further development. The more this were to happen the better. Independent financial and industrial concerns have greater experience in their own lines than any body of international officials could have. They are dependent on their efficiency of management for their profits and viability.

The main benefits to be derived from the activities of the proposed development authority would be:

(i) Social unrest in the hunger countries would be allayed.
(ii) Stable world prices would eliminate fear of a slump.
(iii) The necessary doubling of the food supply in the succeeding twenty-five years, to abolish hunger, would bring prosperity to agriculture in all countries.
(iv) The enormous quantities of steel and other industrial products for agricultural development would absorb the surplus of the industrialized countries.
(v) The act of co-operation of all nations in this vast enterprise, benefiting the wealthy as well as the poorer countries, would bring about a better understanding

between nations and make for co-operation in other spheres. It would be a step towards the evolution of the UN into a World Government, without which there is little hope of permanent peace.

The proposals were submitted with the suggestion that if they were approved in principle a commission be set up to prepare a detailed plan.

AND ITS FATE

These proposals were considered at the first FAO Conference, which was held at Copenhagen in September 1946. There progress of the idea faltered. Some governments played for time. All agreed that the proposals were right, but some influential nations felt that the world was not ready for such bold measures. They agreed to set up a Commission, but when the Commission sat and reported six months later the faltering at Copenhagen turned into a dead stop.

Britain and America were not prepared to give either funds or authority to an organization over which they had not got full control. Britain might have lost her advantage of cheap food imports, while the US thought that she could do better for herself as a world power through bilateral aid to other countries. This is an understandable attitude for these national governments to have adopted. Indeed, to have decided otherwise might have appeared to their peoples as a dereliction of duty. It shows that, since the governing bodies of UN Agencies are delegates of national governments, the next step, which involves supra-national action with some loss of national sovereignty, can never be taken until the people of the nations understand the situation and the necessity for the step, and return governments with a mandate to create such a supra-national body as the proposed world food board. As it was, all the Commission were prepared to recommend was a Food Council which

could talk about long-range food problems, but have no powe to act to solve them. When the Second FAO Conference met a Geneva in 1947 and received the Commission's report, th leader of the French delegation said that his governmen regretted the watering down of the proposals from an Inter- national Board which could take action to a Council without powers. This regret was shared by the majority of the nations.

FAO IN THE DOLDRUMS

Thus FAO was relegated to the role of an advisory body, little more than a glorified IIA, while with increasing population the need for strenuous action has grown steadily ever since. The Director-General, realizing that it would be a long time before the nations would come round to facing up again to this major evolutionary issue in the organization of society, and that meanwhile FAO would continue to be hamstrung, asked the Conference to speed up their efforts to find his successor.

From then onwards successive Director-Generals have done their best to improve the world food situation with their advisory powers, and to extend their powers through co-opera- tion with other UN bodies, such as the Technical Assistance Board and the Special Fund. They have kept the world informed of the state of food and agriculture and emphasized the inadequate progress. At the same time they have striven to help underdeveloped countries by providing technical assist- ance in their projects to improve food production and supply, not without success in the small localities concerned. From the results we have seen in Chapter III, however, it is clear that improvements have not managed to gain on the overall deficits in food requirements per caput of the rapidly increasing peoples of the underdeveloped countries. This is despite co-operation with other UN Agencies and the swelling of FAO's budget, from ources such as the Special Fund, to about twice the size of its opelessly inadequate regular budget.

CHAPTER VIII

Aid Since 1946

SINCE 1946, while all governments have somewhat increased their contributions to UN and its Specialized Agencies, the governments of the major Powers have channelled most of their aid to underdeveloped countries bilaterally. It has been of various forms going to many different types of projects, and it is difficult, if not impossible, to separate aid for food from the rest. Indeed aid for development of any kind may benefit the food supply and nutrition of peoples and, conversely, aid for food and agriculture helps the general development of a country, and is essential if the people are malnourished. Aid in education and training, for example, may be largely wasted if the trainee is sick and hungry, for he will not be able to absorb the teaching. They are in fact inseparable. Nor can aid be separated from trade, with which it is coming to be more and more closely linked. To get a picture of what is happening it is therefore necessary to look at total aid and the main means and ways through which it is being channelled.

The relative importance of aid to recipient countries may be gauged by comparing its value with that of their exports. The value of exports from underdeveloped countries in 1962 is estimated at about £9,000m. (This and subsequent figures in this chapter are rounded estimates, but accurate enough for the purposes of illustration.) Income from public aid and private investment combined in that year totalled £2,700m., or little less than one third. Since World War II, with the exception of

the time of the Korean war, the prices of the commodities they export have generally been falling. In some cases, e.g. cocoa, the situation has been aggravated by violent fluctuations that have made development planning well nigh impossible. At the same time the prices of their imports have generally been rising, so that although they would have been worse off without aid, the loss of import capacity has still outweighed the gain in aid. In one year, 1957-58, bad for them in 'terms of trade', they lost nearly £7,000m. of import capacity, which is equivalent to six years of lending by the World Bank. The proportion of global trade contributed by the underdeveloped countries has not unnaturally been falling. In 1960 it was 20%, which was 10% less than in 1950. Mr Paul Hoffman, Managing Director of the UN Special Fund, estimates that the current flow of development capital of £1,700m. must be raised by at least £1,000m. a year, if income per caput in the developing countries is to rise £10 by 1970, from the present abysmal level of about £30 a year.

BILATERAL AID

USSR versus USA

The USSR and the USA use trade and aid for political ends in the cold war. When a country is in difficulties with another, especially of the Western world, the USSR steps in. Thus she has bought, for example, rice from Burma, fish from Iceland, and cotton from Egypt, in return for arms, capital goods and raw materials. The USA for its part uses aid for economic growth as a bolster against Communism. In the US Congress in fact, the funds for economic development are granted in the context of 'military security'. They are given in proportion to the danger, as sensed in Washington, of Communism threatening the recipient country, to keep allegiance to the government in power, rather more than in accordance with the needs for economic development. Indeed, sometimes the recipient country is not equipped to handle the aid; the money sticks in

the hands of the rich few, and may even end up being invested abroad.

The uncommitted nations have gained bargaining power by playing one side off against the other. But as these moves in the cold war are not primarily aimed at raising the standards of living of the peoples there is little or no real improvement. Their purchasing power does not rise, and they don't provide an expanding market for the product of the Big Machine. In most of Latin America it is diminishing. In thirteen of these countries the cost of living since the war has risen over 50%. In Bolivia, which has received £62m. in US aid since 1945, the cost of living has risen until in 1960 it was twenty-five times that of 1946. Largely because there are no positive and constructive results to show for such aid the people of the USA are getting tired of doling out grants, while seeing favourable trade balances dwindling, gold leaving Fort Knox and unemployment rising to six million. Congress is consequently reducing appropriations for foreign aid. Furthermore, new loans are being tied more and more to compulsory procurement in the USA.

The USA also disposes of some of its surpluses in aid to countries to speed their economic development. Among the different ways in which this is done, one is by the recipient country paying for a proportion in its own currency. Such funds are then used there for economic development projects. This procedure under Public Law 480 (renamed Food for Peace) has grown till, in 1964, it is expected to distribute nearly £700m. worth to about 100 countries. Such large-scale dispersal of surpluses tends to harm the market for other countries such as Canada. President Eisenhower suggested international action on similar lines and now FAO has established the World Food Programme for this purpose.

Britain

The UK spent £130m. bilaterally in 1962-63, and expect to

top £170m. in 1963-64, or two-and-a-half times that of 1957. Of the total only about 10% goes to countries outside the Commonwealth. The £170m. represents 0·63% of our Gross National Product and 8·5% of our budget for defence. The UK Technical Assistance Programme in 1962-63 cost £20m., spent mostly on personnel. Fifteen thousand people are employed in the technical and administrative services of the newly independent governments, and their salaries, transportation and other expenses are partially subsidized by us. Loans go mostly to the Commonwealth and grants mostly to Dependent Territories. Eighty per cent of the loans allow twenty-five years for repayment and some are made at lower than commercial rates of interest. Like those of the USSR and the USA, the British forms of aid are being tied in more and more to purchases in the home country.

France

French aid is second in size to that of the USA. At £293m. in 1962 it was more than twice that of the Soviet Union and nearly treble the British. Moreover their terms are the most generous. Most goes to the Franc area; Algeria, Morocco, Tunisia, Cambodia, Laos, Vietnam, Guadeloupe and Reunion. But some goes to Mexico and Brazil, with credits to Cuba and both aid and credits to mainland China.

Other Countries

Germany and Japan also have aid programmes, and to a smaller extent Italy, Belgium, and Portugal, mostly to former colonies in Africa. Canadian, Australian and New Zealand commitments are connected with the Commonwealth, while Switzerland, the Netherlands and Scandinavian countries are guided more by trade considerations.

The Private Sector

Private business interests naturally seek to buy as cheaply as

possible abroad, and owing to the risk of confiscation and other dangers to their investments in underdeveloped countries, they need a high return for their money. The contribution of this sector, which has represented about 40% of the total flow of capital to developing countries in the last five or six years, could usefully be increased if it were placed under international supervision and insurance. At present, however, fear of risk on the one hand, which prevents its flow to countries where it is most needed, and fear on the other hand of 'dollar diplomacy' (development by US companies with government backing and sometimes even the use of the US Marines), or its equivalent from other powers, are limiting factors. To encourage private foreign investment by their nationals the governments of Japan, Germany and the USA, especially, provide guarantees against losses without controlling the companies concerned. Some underdeveloped countries, however, penalize foreign investment with over-high taxation. As a result the small outlets to underdeveloped countries probably increases investment pressure by the US in Canada, where it is now greater than £3,000m, or one third of total US direct investment abroad.

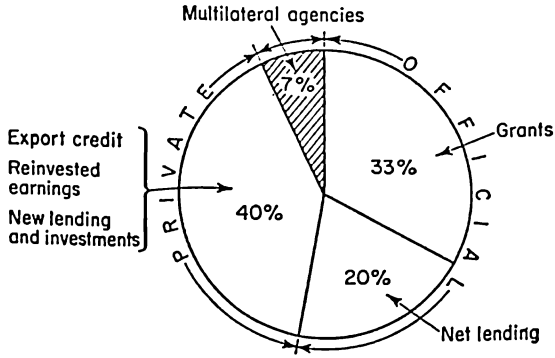
MULTILATERAL AID

The Channels of Aid

Out of some £9,500m. of total aid a year, about £650m., or 7%, is provided through multilateral channels. Of this the eight Specialized Agencies of the UN, such as the World Health, and the Food and Agriculture Organizations, together get only £50m. for their regular budgets, or one tenth of the US bilateral programmes and less than those of the USSR, the UK, France or Germany. It is to be wondered whether this was what Roosevelt and Churchill envisaged when they prepared and signed the Atlantic Charter creating the United Nations. We are certainly paying no more than lip-service to the ideal of the victors of the war co-operating to free the world

from want if the Agencies are given neither the authority nor the funds to act, and if the governments of the major powers by-pass the international machinery in order to act bilaterally for their own narrow short-term national ends.

The Flow of Capital to Developing Countries



Total: 9½ thousand million

The accompanying diagram, based on one by the Netherlands Economic Institute, shows the relative contributions in flow of capital of the different sectors of aid.

International Finance

The Bretton Woods family of financial bodies provides the major source of multilateral development funds. The original one is the International Bank for Reconstruction and Development (IBRD). Offspring were formed because this World Bank was constituted on conservative nineteenth-century economic principles and was consequently unable to carry out the functions expected of it. The majority of the hundred developing

nations earn too little foreign exchange for them to increase their foreign debt by loans of conventional duration and rates of interest. If they could, it is doubtful whether the World Bank would be needed. Accordingly, in 1956 the International Finance Corporation (IFC), concerned particularly with loans to private enterprise, and later the International Development Association, giving 50-year interest-free loans repayable in local currencies, were formed to carry out more liberal functions than the IBRD is permitted by its constitution to fulfil. Recently, however, the Bank has itself liberalized and widened its own functions. By June 30, 1963, it had amassed 349 loans to 64 countries and territories amounting to £2,330m., not all of which are for development. IFC's gross total of investment commitments, as of December 1963, amounted to little over £30m. IDA has made loans totalling £150m. to 18 countries or territories. The bulk of the latter are for agriculture, highways, electric power, water supplies and education.

These bodies have their headquarters in Washington where, though officially under UN, the USA by virtue of its majority participation dominates them. The developing countries have long demanded a UN organization to provide capital for economic development. In 1949 a Special United Nations Fund for Economic Development (SUNFED) was proposed. It was still-born because the fund was to come under the control of the General Assembly, which includes a majority of under-developed countries, who could be recipients of the funds, as well as the Communist countries. The major potential donors, the USA and the UK, would never agree to this.

Specialized Agencies

With only advisory powers and very little money the Specialized Agencies have had to be fortified to be able to do things and retain some self-respect. Instead of liberalizing their constitutions, which might have reduced the power of control of the US and the UK, the same procedure has been adopted as for the

IBRD. New UN bodies have been set up, with separate funds, to work in conjunction with the Agencies.

The UN Expanded Programme of Technical Assistance (EPTA) started operations in July 1950. By the end of 1963 it had provided for 13,000 experts of 90 nationalities to 135 countries and territories. It provided awards of 25,000 Fellowships for training and education. In 1961 its budget was over £13m, subscribed by the governments (the USA paying 40%). EPTA is the international counterpart of the bilateral US Truman Point 4 programme. Later, when this was found to be inadequate, the UN Special Fund was started to take on large-scale projects to stimulate public and private investment. It invests in exploration and survey of physical resources, creation or strengthening of research, and large-scale training of technicians and managers in the developing countries. In the last five years it has approved 327 one- to five-year projects, which will cost the Fund £95m. and the recipient countries £130m. in their counterpart funds. In 1962 the World Food Programme was given a mandate for joint action by UN and FAO in a three-year programme, using surplus food for economic development and to help in emergencies. This is the international counterpart to the US Food For Peace programme.

FAO, with a regular budget of £7m, uses as much again through EPTA and the Special Fund for action projects. It also co-operates for action with other UN Agencies such as the Children's Emergency Fund (UNICEF). We have seen how inadequate these resources are for tackling the world food problem, and how the situation is worsening. In its struggle to leave no stone unturned FAO, mainly to get the nations to realize and face up to the appalling seriousness of the situation, has managed to add one more string to its bow—the Freedom from Hunger Campaign (FFHC). FFHC may provide some £10m. which will not in itself make a significant impression on the overall figures of world food production. However, it has some important and unique features. It is applied directly to the people on the land

and seas, with the minimum of encumbrances by government channels. From its source of popular voluntary contributions it is a People-to-People Campaign, with important moral consequences. First, the recipient people, as evinced at the World Food Congress, June 1963, are beginning for the first time to feel that the people of the industrialized countries really care about them. This improves their morale, which in 'hunger' areas is inevitably low and a stumbling block to efforts at improvement. In Thesproteia, for example, a desperately poor part of N.W. Greece for centuries raped by successive rulers (Albanian, Bulgarian, German, Turkish, etc.), the FFHC project is being assisted by UK United Nations Association Volunteers. The local inhabitants, who at first looked on apathetically, are now so encouraged that they are providing useful volunteers of their own. In 1964 there are to be 100 UK Volunteers, and now the Greeks are planning to match these with 100 Volunteers of their own. Secondly, the emphasis on helping people to help themselves at the grass roots, so to say, fills a gap in the armoury of development aid, an aspect which is now being publicly ventilated, especially by the US in defence of their reduced aid budget. Neither the Special Fund nor other large-scale projects are likely to be fully successful without the active and enthusiastic help of the local people. Lastly, the interest of the people in the FFHC projects to which they have contributed is likely to open their eyes wider to the gravity of the world food situation, and lead them to demand that national funds be devoted to more effective ways of dealing with it.

All in all the picture of development aid seems one of uncoordinated imbalance and insufficiency, meeting consequently with precious little response in terms of improvement in welfare.

CHAPTER IX

World Food Policy, 1964

SINCE 1946, when the World Food Board proposals were rejected, most of the machinery required for it has been formed in some way or another, gradually as experience has proved its necessity. The World Bank through its offspring can make long-term loans free of interest, where necessary, and payable in the currency of the recipient country. FAO, through EPTA and the Special Fund can act as well as advise, and through the World Food Programme it can employ unmarketable surpluses, deal with emergencies, help stabilize agricultural prices and contribute further to development.

The rightness of the original proposals is thus confirmed, even though results in gaining on the mounting food requirements are as yet negligible. This is not surprising. The machinery is still only at the infancy stage, with the World Food Programme hardly yet in action: only a fraction of the Special Fund and EPTA resources are used for food and agriculture, and the load on all the machinery, which is 90% by-passed by the bilateral channels, is a tithe of what is necessary to make effective gains. Of the bilateral aid much has had more political than economic significance, and any gains have been outweighed by losses due to adverse terms of trade for the developing countries.

The time is ripe for the nations to review the question whether the world is now, eighteen years later, ready to take the

plunge and co-operate to establish an effective International World Food Policy.

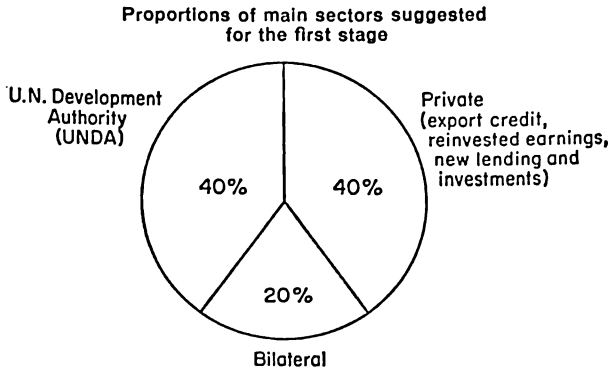
An effective plan would not only turn the present losing battle to meet world food requirements into a victory, but it would also divert the products of the Big Machine from defence weapons to human welfare, help stabilize world prices and generally create favourable conditions for an expanding world economy, with benefit both to developing and industrial countries.

If the nations decide to co-operate wholeheartedly in this venture, and the way the world is going it is difficult to see how they can afford *not* to, then they must be prepared to elect an International Development Authority with virtually supra-national power; to establish a World Food Board to carry out the functions referred to in Chapter VII; and to channel most of their aid through the UN, giving first priority to food.

The finance required could be obtained, *a.* by governments diverting the greater proportions of their present bilateral aid to the UN Development Authority (UNDA). If, as a first stage, 40% of aid were channelled through UNDA, 40% through private arrangements and 20% through bilateral, then about £3,200m. would be available to UNDA; *b.* by the nations agreeing to reduce their defence budgets by a given proportion, say 5%. This would yield over £1,000m., which could be spent on industrial products required for food production, storage and distribution.

The governing body of UNDA would presumably consist of delegates of the national governments contributing. The voting rights should depend on the degree of sacrifice made by a nation in devoting funds to the Authority. It is tentatively suggested that a scheme might be worked out relating the contribution to the Gross National Product. In this way, for example, if a nation contributed 1% of its GNP it would have ten votes, if 0·5%, five votes, and so on. There are many ways in which it could be worked out, but to be adopted the scheme

would have to satisfy both industrial and developing countries, and minimize the possibility of any nation using the Authority for its own nationalistic ends at the expense of others. The great responsibility that UNDA would be exercising probably necessitates the Secretary-General of UN heading it.



Present recipients of bilateral aid would stand to gain if the aid could be replaced by equivalent multilateral aid, since it would remove the risk of domination by the donor nation. They would be able to buy and sell in the world markets most advantageous to them, and thereby speed their economic development. The donors of bilateral aid, however, would stand to lose their nationalistic political advantage and also some market security achieved by tying strings to their terms of loans and giving of bilateral aid. Nevertheless, the latter should be outweighed later by the expansion of the economies of the developing countries and the consequent increase of world trade. It is doubtful if the world order of political power and prestige will be greatly affected since the rise in the developing country will be matched by a corresponding rise in the industrial.

Highly desirable though it is that all countries should co-operate, yet, provided the majority of the major powers do so, the plan will work. Those that then hold out will lose out.

CHAPTER X

The White Man's Dilemma

THERE is a reason, though it is largely subconscious, for the reluctance of those in power to co-operate in abolishing hunger and poverty. The power of money depends not so much on the absolute amount a man has, as on the relative amount to other men. If all men were wealthy, a wealthy man would have no more power than anybody else. If, however, a few men are wealthy, and the rest are so poor that they are dependent on the wealthy for getting work to earn the price of food, then the wealthy can obtain both service and, at least, the outward show of submission. So soon as the poor are assured of food and the other physical essentials of life, they have taken the first and by far the most important step to liberty. The power of money over their lives is broken. They no longer need to cringe to live. As an American writer put it, 'when you clean up the slums the servant problem gets tough'. The same problem has arisen in the 'welfare state' of the United Kingdom. This does not mean that people are no longer willing to work. Everyone wants more than merely the physical necessities of life. It is the people above the poverty level who work hardest. But if assured of the necessities of life they can work with the 'glorious feeling of being independent' of another human being for the right to live.

This applies to the two-thirds of the population of the world who lack food and other physical necessities of life. A world development authority which would provide sufficient food for everybody would inevitably eliminate preventable

disease, improve housing and spread education. The natives of Asia, Africa, and Latin America, whose average expectation of life at birth is only thirty to forty years, would then enjoy the environmental conditions which the common people of Western Europe have won since the early part of the nineteenth century, when their average length of life was also only about forty years, but who now attain an average of sixty-five to seventy years. Under these favourable conditions the Asians, the Africans, and the Latin Americans would have gained the 'right to life, liberty, and the pursuit of happiness'. The American fathers were wise to put life first, because the man who suffers premature death for lack of the necessities of life has little interest in political liberty and little chance of catching happiness, however hard he pursues it. Economic freedom is the first freedom for poverty-stricken people.

But if all the people in the world had environmental conditions which would enable them to attain their full inherited capacity for physical and mental ability there would be little, if any, difference between the ability of men of different races. The natives of Asia, Africa, and Latin America would become the equals of the white man, and as these continents became industrialized the Europeans and their descendants, the Americans, would lose the control of the world they gained in their 300 years of conquest from the seventeenth to the nineteenth centuries. This, then, is the white man's dilemma. He can attempt by force to maintain military and economic supremacy, in which case he will be involved in an almost world-wide disastrous war, worse than Korea, the final outcome of which will be the downfall of Western civilization. On the other hand, he can, as Stringfellow Barr puts it, join the human family and use his present industrial supremacy to develop the resources of the earth to put an end to hunger and poverty, with resulting world-wide economic prosperity—in which case he would lose his superior power. This is a hard decision to make. To give up power goes against the grain, and all the

patriotism and pride of race which has been dinned into him, revolt at the suggestion of the equality of races.

The sacrifice of the power of individuals in the white races, however, is not so great as would appear. Equality would not be reached until long after those who now hold power are dead and when equality, with equal opportunity for all, were attained, the men of outstanding ability would secure leadership. Whatever the form of world society, there must be leaders who are given power and authority. In a democratic society that kind of power which is combined with real respect is for mature minds more satisfying and more dignified than power over the lives of men secured by military force or money.

Some will be impatient with the idea of applying modern science to develop the vast potential resources of the earth because they think the first task is to destroy Communism (or from the other point of view to destroy Capitalism) and in the meantime science should be applied to building up more powerful weapons of war. Those who believe that their side in the present conflict is so right and so good and the other side so wrong and so evil that they are prepared to go to war to destroy the opposing side might well ponder the Biblical injunction, 'Be not overwise and be not over righteous: why shouldst thou destroy thyself?' Others might say we should be prepared to help fulfil the promise of the Atlantic Charter—freedom from want for all men in all lands—but that the other side will not co-operate. A firm offer has never been made. If either the USA or the USSR, with their satellites or allies according to the point of view, made a definite offer to co-operate through an international authority representing the interests of all nations and to give it 10 or even 5% of the money being spent on armaments, provided all others willing to join would make the same percentage contribution, that country would convince the world that it was sincere in its declared objective of promoting human welfare and not acting from purely selfish motives. Any power which refused to join

could then rightly be labelled as a warmonger and an aggressor against human society. If none of the Great Powers is willing to make such an offer, then there is some reason to believe that the ideological conflict is merely a smokescreen for the old game of power politics, in which the common people of different countries—who have no quarrel with each other—are sacrificed to the lust for power of those who control their destiny.

The United States and the United Kingdom might argue that by giving technical assistance through the Colombo Plan and President Truman's Point 4 they are making their contribution to the abolition of poverty in the underdeveloped countries. As we have seen, the technical assistance, though helpful, is hopelessly inadequate. Further, it is given not in the interests of the people, but to stop the spread of Communism in the interests of the Western powers. An American has said that 600 million dollars could save India from going Communist. To bring India within the sphere of influence of the United States at a cost of a dollar and a half per head of its population would be a good bargain if it could be carried through. But India, proud of its independence, could not be bought by all the wealth of the United States, and that goes for all the resurgent nations. The Western powers, while willing to pool their military resources under one organization for war, are unwilling to make one organization of the British Colombo Plan and the American plan for technical assistance, or to co-operate through the United Nations organizations such as FAO for an out and out war on want. This gives some justification for the propaganda of the Russians that the Western imperialistic countries, by their mutual competition for their own selfish ends, will lead to the disintegration of the forces opposing Communism.

The Western Powers are faced with the rising waves of revolt of Asia, Africa, and Latin America against poverty. They can try to resist it by force or buy it off by the offer of technical assistance and trifling loans with political strings attached to

them, which will break on the first strain. In that case they will ultimately be destroyed or submerged. On the other hand, either with or without the co-operation of the USSR, they could recognize the inevitable and use their overwhelming industrial superiority to create a new world of plenty. In so doing they would gain a new power and prestige by assuming leadership in the march of the human family to the new age of peace and prosperity and the common brotherhood of man, which modern science has made the only alternative to the decline and fall of the Western civilization.

APPENDIX I

Statistical Tables.

I. Indices of World and Regional Food Production in Relation to Population.

II. Changes in Food Production and Population in Relation to Pre-war Period.

III. Population (1975 and 2000) by Subregions and Regions.

TABLE I

INDICES OF WORLD[1] AND REGIONAL FOOD PRODUCTION IN RELATION TO POPULATION

	Pre-war average	Average 1948/49-1952/53	1953/54	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63 (Preliminary)
	Indices, average 1952/53-1956/57 = 100											
TOTAL FOOD PRODUCTION												
Western Europe	82	86	101	101	102	103	107	109	113	119	119	124
Eastern Europe and USSR	83	86	95	96	104	116	119	131	133	134	137	141
North America	66	92	98	97	101	104	101	109	110	111	110	113
Oceania	81	92	99	98	103	100	99	116	115	121	123	133
Latin America	70	88	96	100	101	109	111	117	117	119	120	121
Far East[1]	82	87	99	100	103	107	106	111	116	120	122	124
Near East	73	85	101	97	100	109	113	117	120	121	120	124
Africa	71	89	99	101	100	106	102	106	108	113	109	113
ALL ABOVE REGIONS	76	88	98	98	102	107	108	114	117	120	120	123
PER CAPUT FOOD PRODUCTION												
Western Europe	93	89	102	101	101	101	105	106	108	113	113	116
Eastern Europe and USSR	85	92	96	96	103	113	114	123	124	123	124	126
North America	85	99	100	97	99	101	96	101	100	100	98	98
Oceania	108	102	102	98	101	96	92	106	102	106	105	111
Latin America	105	98	98	101	99	103	103	105	102	101	99	97
Far East[1]	106	94	101	100	101	103	100	103	105	106	105	104
Near East	96	93	103	97	98	104	105	107	107	105	103	104
Africa	95	96	101	102	98	101	96	98	97	98	93	94
ALL ABOVE REGIONS	94	95	100	99	101	103	102	106	106	107	104	106

[1] Excluding Mainland China.

TABLE II

CHANGES IN FOOD PRODUCTION AND POPULATION, AVERAGE 1958/59—1962/63 IN RELATION TO PRE-WAR PERIOD

	Population	Total food production	Per caput food production
	Percentage increase[1]		
Western Europe	19	42	20
Eastern Europe and USSR	11	63	46
North America	43	67	17
Oceania	52	50	−2
Four above regions	21	57	30
Latin America	76	70	−3
Far East[2]	47	45	−2
Near East	50	64	9
Africa	53	54	1
Four above regions	52	54	2
ALL ABOVE REGIONS	39	56	13

[1] Pre-war average to average 1958/59-1962/63. Minus sign indicates decrease. [2] Excluding Mainland China.

TABLE III

POPULATION (1975 AND 2000) AND INDEX NUMBERS OF POPULATION (1958 = 100), BY SUBREGIONS AND REGIONS (MEDIUM ASSUMPTION)

Subregions and regions	1958 Population in millions	1975 Population in millions	1975 Index numbers	2000 Population in millions	2000 Index
FAR EAST					
South Asia	510	716	140	1 271	249
South-eastern Asia, mainland	64	92	143	162	254
Eastern Asia	125	161	129	231	185
South-eastern Asia, major islands	114	131	115	290	254
China, Mainland	670	949	142	1 685	251
REGION	1 531	2 150	140	3 753	245
NEAR EAST					
REGION	127	182	143	326	257
AFRICA					
North Africa	25	38	149	73	287
West and central Africa	85	111	131	178	210
East and southern Africa	68	91	134	153	225
REGION	205	273	133	458	223
LATIN AMERICA (excl. River Plate countries)					
Mexico and Central America	57	89	157	181	319
Northern and western countries of South America	45	68	151	135	301
Brazil	66	104	159	219	334
REGION	175	272	155	552	315
RIVER PLATE COUNTRIES	25	32	128	43	172
EUROPE					
REGION	624	757	121	954	153
NORTH AMERICA					
REGION	192	250	130	325	169

OCEANIA REGION	15	22	147	30	200
LOW-CALORIE COUNTRIES	2 038	2 877	141	5 089	250
HIGH-CALORIE COUNTRIES	856	1 061	124	1 352	158
WORLD	2 894	3 938	136	6 441	223

APPENDIX 2

Glossary of Aid Agencies

AID. Agency for International Development. USA successor to Marshall Plan and Mutual Security Programme. Now main US Agency for financial assistance abroad.

Alliance for Progress. USA Aid to Latin America except Cuba. Anti-Communist.

Arab League's Arab Monetary Fund. Arab equivalent to World Bank but within Arab region only.

CDC. Commonwealth Development Corporation. UK development agency.

Common Market Fund for Economic Development. European (mostly French). Aid to former African colonies. Agency of *EEC.*

Colombo Plan. UK Commonwealth and wider—Australia, Bhutan, Brunei, Burma, Cambodia, Canada, Ceylon, India, Indonesia, Korea, Japan, Laos, Malaysia, Nepal, New Zealand, Pakistan, the Philippines, Thailand, UK, USA, Vietnam. Technical aid for South and South-east Asia. Bilateral with multilateral planning and participation.

COMECON. USSR Council for mutual economic aid among Communist countries of the Warsaw Pact.

DAC. Development Assistance Committee, of the OECD. Western Nations forum for centralizing bilateral programmes.

DLF. Development Loan Fund. USA. To encourage private investment abroad.

DTC. Department of Technical Co-operation. UK Technical Assistance abroad.

ECA. Economic Commission for Africa. UN Regional Agency.

ECAFE. Economic Commission for Asia and Far East. UN Regional Agency.

ECE. Economic Commission for Europe. UN Regional Agency.

ECLA. Economic Commission for Latin America. UN Regional Agency.

Economic and Social Council. UN Central body for Specialized Agencies.

EEC. European Economic Community. Belgium, France, Germany, Italy, Luxembourg, Netherlands. Common Market.

EPTA. Expanded Programme for Technical Assistance. UN Counterpart to US Truman Point 4.

Export-Import Bank. USA. To facilitate and finance their trade.

FAO. Food and Agriculture Organization. UN Specialized Agency.

FOA. Foreign Operations Administration. USA. Superseded by AID.

FFHC. Freedom from Hunger Campaign. FAO sponsored people-to-people food projects.

GATT. General Agreement on Tariffs and Trade. UN. Outcome of Havana Charter to eliminate restrictive and discriminatory trade practices.

IADB. (or *IDB*). Inter-American Development Bank USA. Administering loans to Latin American countries under the Social Progress Trust Fund in the Alliance for Progress.

IAEA. International Atomic Energy Agency. UN Specialized Agency.

IBRD. International Bank for Reconstruction and Development (World Bank). UN. Outcome of Monetary and Finance Conference at Bretton Woods, 1944.

ICA. International Co-operation Administration. USA. Grants and loans for Defence Support, Technical Assistance and

Economic Development by Congress appropriation to the State Department under Mutual Security Act.

ICAO. International Civil Aviation Organization. UN Specialized Agency.

IDA. International Development Association. UN. Of Bretton Woods family, to give credits on more liberal terms than World Bank.

IFAP. International Federation of Agricultural Producers. Non-governmental association of farmers.

IFC. International Finance Corporation. UN. Investment, of Bretton Woods family, to encourage productive private enterprise.

ILO. International Labour Office. UN Specialized Agency. Originated after World War I.

IMF. International Monetary Fund. UN. Of Bretton Woods family. Sells foreign exchange to member countries out of the currencies it holds.

ITU. International Tele-communications Union. UN Specialized Agency.

Marshall Plan. US. Post-war European recovery programme. All forms of aid were given including military.

Mekong River Development. UN. ECAFE. Single project, akin to US Tennessee Valley Authority (TVA) for Cambodia, Laos, Vietnam and Thailand in lower Mekong Basin with aid from Japan, France, NZ, and USA.

Mutual Security Programme. USA. Mutual Security Act 1954, under policy direction of State Department. Superseded since 1961 by AID.

OAS. Organization of American States. USA. LA.

OECD. Organization for Economic Co-operation and Development. Multilateral forum and clearing-house for aid among its twelve member-countries for their bilateral programmes. Includes France, UK and USA.

OPE. Operation Executive. UN. Administration service, recruits executives to operate postal, railroad, etc., government services directly for the government.

Public Law 480. USA. Agricultural Surplus aid. Law enacted 1954, renamed by President Eisenhower 1959, 'Food for Peace'.

SEATO. South-east Asia Treaty Organization. UK. Economic aid connected with military alliances.

Security Council. Council of the UN.

Social Progress Trade Fund. USA/LA. Loans administered by IADB under Alliance for Progress tied in now more closely to purchases in USA.

SOF. Special Operations Fund. An agency of IDB to finance projects for economic development not necessarily self-liquidating. Easier terms with repayment in local currencies.

Special Commonwealth African Assistance Plan. UK. British bilateral programme.

Special Fund. UN Technical Assistance programme for large projects, sharing the expenses with recipient governments.

SUNFED. Proposed Special UN Fund for Development. Non-existent, failed to get support from UK and USA.

UK Technical Assistance Programme. Bilateral aid, mostly to Commonwealth, and mostly personnel.

Truman Point 4. USA. 4th point in speech by President Truman in 1949. Bilateral technical assistance. He urged similar multilateral through UN, now extant as EPTA.

UNESCO. UN Educational Scientific and Cultural Organization. UN Specialized Agency.

UNICEF. UN International Children's Emergency Fund. UN Specialized Agency.

UNRWA. UN Relief and Works Organization. For refugees.

World Food Programme. UN three-year programme for using

surplus foods for economic development and emergencies. Administered jointly by UN and FAO.

WHO. World Health Organization. UN Specialized Agency.

WMO. World Meteorological Organization. UN Specialized Agency.

APPENDIX 3

The Freedom from Hunger Campaign

The Director-General of FAO, Dr Sen, initiated this five-year international campaign in 1960. While Member Governments felt unable to contribute more money to the regular budget of FAO from their exchequers, it was felt that their peoples might be willing to subscribe to specific projects designed to help people to help themselves. It would provide an important form of aid, from people to people as opposed to from government to government, and so help fill a gap in the front line of attack on the world food problem.

Though a small campaign in terms of money and size of projects, the potential effect, in terms of the morale of the recipients working the lands and waters, and of education of the people contributing, can be very great.

So far 70 Member Countries of FAO are participating, of which 46 are recipient countries. The World Food Congress June 1963 devoted a whole section of its deliberations to FFHC and resolved that the work was so important that it should be continued beyond 1965 on a permanent basis. This was followed later by a resolution at the General Assembly, sponsored by the UK, urging Member Governments to encourage their non-governmental organizations to continue and widen their activities in the fields of food, health and education on a continuing basis.

The FFHC projects can be applied in the most needy places, directly at the grass roots so to speak. The people-to-people approach is proving in many instances highly effective in eliciting vigorous co-operation from the people where the

projects are being started. This is often lacking in other forms of aid, where the approach is more indirect and the scale of a project is larger and more complicated than the farmers, fishermen and workers can readily grasp. On the other hand, the people contributing in the donor countries have a vested interest in the working and progress of the projects and are likely to take a more enlightened interest in the whole world food problem. It is to be hoped that non-governmental activity will be concentrated on hunger and food, the prime want, and that their work in the fields of health and education will be directed towards the ancillary objectives of population policies with birth-control, and education in nutrition, food production and supply. Popular interest in the critical situation of world food supplies and requirements is essential for the mobilization of the all-out attack needed to win the battle. Governments will not, and probably cannot, move to take this big step without the understanding and expressed desire of the people of the world to co-operate wholeheartedly in this big venture.

Even when world co-operation on an adequate scale through international co-ordinating channels is in action, the direct people-to-people approach will still be needed; for the problem needs to be tackled from the bottom upwards as well as from the top downwards.

The following publications are listed in the belief that they may be of special interest to readers wishing to study certain aspects in greater detail:

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Tables and figures in the text have been taken mostly from UN statistics publications, FAO bulletins and monographs, and Trade, Aid and Economic Development, International Review Service 1964. Channels of flow of capital to developing countries are based on the work of the Netherlands Economic Institute, quoted in the *Financial Times*. The appendix tables are reproduced from the FAO State of Food and Agriculture 1963 and Third World Food Survey. Basic Study No. 11. (Agents for FAO publications—HMSO).

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