

CONFERENCE	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS	C 73/LIM/13 November 1973
CONFÉRENCE	ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE	
CONFERENCIA	ORGANIZACION DE LAS NACIONES UNIDAS PARA LA AGRICULTURA Y LA ALIMENTACION	

Seventeenth Session

Rome, 10 - 29 November 1973

1973 McDougall Memorial Lecture

INTEGRATED APPROACH FOR FOOD, NUTRITION,
POPULATION AND ECONOMIC GROWTH,

BY

SABURO OKITA

President, Overseas Economic Cooperation Fund of Japan

12 November 1973

FAO, ROME

The 1973 McDougall Lecture

Address given at the opening of the Seventeenth Session of the
Conference of the Food and Agriculture Organization of the
United Nations, Rome, November 1973

By Saburo Okita

I realize that it is a great honour and privilege to be a lecturer on the occasion of the McDougall Memorial Lecture of FAO. I am not very sure if I should have accepted the invitation to lecture at this time, when the world food policy has come to a crossroad of a very fundamental nature. However, I venture to present some ideas in the hope that they will serve, at least in a small way, to clarify the major world issues we are facing today.

The most fundamental issue now, it seems to me, is whether we should anticipate a "surplus" or a "shortage" in the future world food supply. I am aware, of course, that the key issues in this session of the FAO Conference are, one, international agricultural adjustment, and two, world food security policy. These two issues, however, contain some contradicting elements. In case we assume, basically, a surplus of food in the future world market, adjustment problems based on the rational international division of labour should deserve added attention. On the other hand, in case we assume, basically, a food shortage in the world — that is, the second issue — food security policy should receive priority.

When I read the McDougall memoranda this time I was deeply impressed by his foresight and his humanistic motivation in looking at the world food problems some 30 to 40 years ago. His major concern was, as I interpret it, to bring the food and nutrition problems together and by pursuing a policy of better nutrition for the poor and undernourished people, a solution would also be found for the problem of a world surplus of food, with an expanding demand for these commodities. At the same time, if governments followed freer trade policies and reduced protection for domestic agriculture, cheaper food would become available and it would make it easier for low income people to purchase better food and improve their nutritional standard.

During the 40 years since the McDougall memorandum of 1935, the world food situation has undergone substantial changes. Better nutrition for poorer people in rich countries has been accomplished to a considerable degree together with a more equitable distribution of income, and the consumption of food, in particular high quality food such as meat and dairy products, has greatly increased. The trouble is, however, that such a process of improvement of nutrition seldom has gone beyond national boundaries and a sharp contrast between the nutritional levels in rich and poor countries has persisted. International trade in agricultural commodities has partially been liberalized but we are still far from having free trade for those commodities. Moreover, as a result of the world-wide food shortage of the very recent past, advocates of greater protection for agriculture have been encouraged to strengthen their position on the grounds of national security.

The world is now facing dual issues of adjusting domestic agriculture for better efficiency and of increasing domestic production, sometimes regardless of cost, in preparation for a possible food supply shortage in global terms. From McDougall's time until very recently, excluding the war-time shortages, the world food market has generally experienced a surplus. Though there was a basic shortage of food in poor countries from the nutritional point of view, this could not appear as effective demand because of the lack of purchasing power of these countries.

Here let me illustrate some aspects of post-war experience in food and nutrition problems in Japan. Food imports of Japan were greatly increased in the course of the last two decades thanks to the ready availability of food in the world market and Japan's increased earnings of foreign exchange by expanding export trade particularly of industrial products. Although the domestic production of rice which is the main staple cereal for the Japanese has been maintained at self-sufficiency level, production of wheat, barley, soya beans, etc. were substantially reduced and they were replaced by imports. * Imports of animal food grains such as maize and sorghum expanded from almost nil in the mid-1950s to nearly 10 million tons in 1972. This was necessary to meet a sharply increasing domestic demand for meat, eggs, milk and other high-quality food products.

Because of the uninterrupted supply of foodstuffs from abroad until very recently, few Japanese felt insecurity in depending heavily on imports. Now, after experiencing a world-wide food shortage, many people have started arguing for higher self sufficiency in food supply. However, experts are pointing out that, in order to attain self sufficiency in food at the present level of consumption, nearly twice as much land must be added to the presently cultivated area in Japan and this is physically impossible even if cost aspects are disregarded.

Agriculture in Japan has thus undergone a very far-reaching change in the course of the last two decades. The labour force in agriculture declined from 35.9 percent of the total in 1950 to 14.3 percent in 1971. Agriculture's share in the net domestic product declined from 19.8 percent to 4.7 percent during the same period. Adjustment of agriculture to such a rapid and extensive change was a tremendous task. Rapid expansion of manufacturing industries and services, increase of the share of non-farm income of farm households, improvement of transport systems connecting rural areas to urban centres, and other factors external to agriculture helped the process of adjustment to a large extent. With the rising per capita national income, which rose from 250 US dollars in 1956 to 1,518 dollars in 1970 (1,740 and 2,284 dollars in 1971 and 1972 respectively), the nutritional standards of the people have steadily improved. Intake of animal protein increased from 22.6 grams per person per day in 1956 to 34.2 grams in 1970. Intake of fat and oil increased from 21.8 grams to 46.5 grams during the same period. Diseases such as tuberculosis and beriberi as well as infant mortality declined sharply as nutritional standards improved. According to Dr. Toshio Ohiso, Director of the National Institute of Nutrition, malnutrition practically disappeared in the late 1950s when per capita national income rose to around 300 US dollars. He also mentions as follows: "The Japanese nutritional experience has potential value for other countries. It illustrates a high level of nutritional state and national health attainable with a largely vegetarian diet, high in carbohydrate, low in fat, and using fish and animal food as complementary sources of protein. This is significant for developing countries that must select specific goals for adequate national nutrition and for advanced countries that have the freedom to change their diets." **

According to a recent announcement of Japan's Ministry of Welfare, average life expectancy reached 70.49 for males and 75.92 for females respectively in 1972 and those are about 25 years longer than the life expectancy of Japanese 40 years ago. Also instrumental in the remarkable improvement in health and nutritional condition in post-war Japan were vigorous promotional efforts for dissemination and demonstration of nutritional requirements, especially during the earlier post-war years when the food and nutritional situation was at a critical stage. The Government passed a Dieticians Law and a Nutrition Improvement Law, and measures such as training of dieticians, employment of dieticians for mass-feeding programmes, initiations of a national school lunch programme, conducting a national nutrition survey every year,

* Wheat production declined from 1,531,000 tons in 1960 to 440,000 tons in 1971 and barley production from 1,206,000 tons to 364,000 tons during the same period.

** Diet and Nutritional Status of Japan: The American Journal of Clinical Nutrition, July 1968.

setting a recommended national nutritional standard, promoting so-called "Kitchen Car" Activities for demonstration purposes, etc. were adopted. In addition, promotional activities for better nutrition have benefited from the dissemination of knowledge about family planning and contraception and this has been effective as it reduces psychological obstacles for housewives to participate in such activities.

I am afraid I have dwelt for too long on Japan's recent experiences. It was not because I wanted to boast about our accomplishment but because I am searching for some hints for the solution of world wide problems by an integrated approach to nutrition, health, population, food and income.

We find very often in developing countries a vicious circle of malnutrition and poverty. Food is like fuel for engines. Without a sufficient amount and adequate quality of fuel, engines will not work. Moreover in the case of the human body there is a minimum requirement of calories just for keeping the body alive. Intake of calories over and above such minimum can only be converted into work. If food is insufficient people cannot work efficiently. Moreover, insufficient food both in terms of quantity and quality during childhood affects the health conditions of the next generation. Malnutrition also makes the human body susceptible to many kinds of diseases thus reducing the efficiency of work by individuals and by their society.

There is also a vicious circle of high birth rate and poverty. If a mother suffers from malnutrition infant mortality is high. Mothers want to bear a large number of children to insure against early death of their babies. If a society is very poor there will not be a sufficient number of hospitals or clinics. Communication and transportation will be inferior. Little electricity will be supplied to villages and the darkness of night halts or hampers many social and economic activities. Illiteracy will stay high because of the malnutrition of children and financial difficulties in maintaining schools. Most people will stay in agriculture in which the incentive for having a small family is not as strong as in cities. Thus in a society where income is very low, the "infrastructure" for the implementation of an effective population policy does not exist. When the average income keeps on rising and reaches a certain level, there seems to be a threshold where the birth rate starts a sharp decline. In view of the records of demographic changes in East Asian countries including Japan this threshold is likely to be the range of per capita national income of 200 to 300 US dollars. In the case of Latin American countries this threshold level seems to be higher than East Asia. In China, judging from what I saw and heard in Peking when I visited there in April 1972, the birth rate seems to be declining sharply although their per capita national income is estimated by foreign observers at around 100 US dollars. We observe in China that efforts to limit the family size are being made through various policy instruments. I venture to guess that for the effective lowering of the birth rate, a combination of the following four factors is important: first, determined effort by the Government in implementing population policy; second, spread of primary education; third, an adequate level of nutrition; and fourth, an adequate level of income.

Next year will be the United Nations Population Year and the World Population Conference is to be held in Bucharest, in August. I hope very much the Conference will make an integrated approach, especially in close cooperation with FAO, to population problems. Personally, I have a strong sense of urgency for introducing effective measures in reducing the rate of increase of world population. As pointed out by several FAO studies in the past there will be little hope for improved nutrition and food intake for many of the developing countries if the population keeps on increasing at the current rate. Here the time element is very crucial and if human society fails to introduce effective measures in controlling the growth of population, possibly during this decade, the question of food and population may become an almost insoluble issue.

Although there may be short-term fluctuations between surplus and shortage in world food supply, it seems to me that the long-term trend is toward shortage. If that is the case, we will have to build our food policy on that basis, as I mentioned in the earlier part of this lecture. Vigorous effort to increase food production as well as to reduce

birth rates will be required. In addition, measures to prevent wasteful consumption of food-stuffs, better ways to preserve and store food, rational distribution of food based on nutritional requirements, and so forth, will become necessary.

Let me illustrate some of the policy measures to be derived from the above considerations.

First of all there must be an adequate arrangement for providing emergency food resources. Dr. Boerma of FAO has already made a concrete proposal in this regard and I hope personally at least that his proposal will receive world-wide support. In view of the depletion of world food stocks, especially the diminishing surplus food stocks of the United States, there must be some arrangement, internationally agreed, to prepare for possible food shortages in the future. This is of vital importance for food-deficit countries which depend on external supply for their survival. It is particularly important for low-income countries because the margin of subsistence is very thin in those countries and they are affected most adversely by the world food shortages. Because of the limited availability of foreign exchange in these countries they simply cannot buy high-priced foods.

Introduction of an effective food ration system will be necessary especially for low-income, food-deficient countries. This rationing system should be based on nutritional requirements and it should prevent waste of food in upper income groups at the expense of malnutrition in lower income groups. A similar idea may have to be introduced internationally. In rich countries intake of excess calories, protein and fats are observable and such an excess intake often causes diseases. In future, rich countries may have to introduce policy measures for preventing wasteful consumption of foodstuffs.

Strategy for development assistance should also be reviewed from the above considerations. As I stated earlier, at least in the case of Japan, per capita national income of about three hundred US dollars was a level at which malnutrition was practically eliminated. If a strict rationing system is introduced this may be realized even at somewhat lower levels of income. The purpose of development assistance may have to be geared to the elimination of serious malnutrition all over the world by guaranteeing minimum nutritional and health standards for all people. This may require modifications in the underlying philosophy of the Pearson Commission Report for which I myself was partially responsible as one of the Commission members. The Report, published as "Partners in Development" in 1969, emphasized the efficiency principle of aid in the sense that the aid-recipient countries should make the best use of aid for attaining higher rates of economic growth, larger domestic savings and expanding export trade. The Report emphasized the importance of self-help efforts of aid-recipient countries and expected those countries, in due course, to "graduate" one by one from the status of aid recipient.

Although the above idea will stand valid in substance it may not be a sufficient condition for eliminating mass poverty from the entire world. If the efficiency principle of aid is applied too strictly and the developing countries with better economic performance in utilizing aid are given priority, there will be a widening gap in the level of incomes among developing countries. In the case of Japan, and possibly in many other countries, there is a system of equalization subsidy to local governments. This system guarantees that poorer local governments will automatically receive subsidies from the central government in order to meet the minimum requirements for local administration such as primary and secondary education, health measures, social security, etc. Extension of a similar idea transcending national boundaries may some day become a reality although it seems rather remote given the prevailing attitude of the national governments today.

If the world cannot expect in the near future a large-scale food aid program based on the global welfare concept the countries will have to find alternative possibilities. One such possibility is an adjustment of industrial structure both in developing and developed countries. Because of rising wages, highly industrialized countries are losing their comparative advantages in many branches of industry, in particular, those in labour-intensive industries such as textiles. Moreover, social disincentives for physical production are increasing as people tend to consume more services than goods and work discipline generally

weakens as a society approaches affluence. On the other hand, in many of the developing countries, supply of labour is still abundant and wages are still low. People are more work-oriented and the work efficiency is improving as general education spreads among people. Such a tendency will enable presently poor countries to start expanding their exports of manufactured goods in exchange for food imports. Several delegations attending the recent GATT Ministerial Conference held in Tokyo recommended a policy of increased exports of manufactured goods from developing countries and demanded the opening of the domestic market of developed countries for such exports. This will require structural adjustments of industries in developed countries but it will help to reduce rates of domestic inflation by substituting cheaper imported goods for high-cost domestic products. More important is that such a policy will enable developing countries to purchase necessary food from abroad.

Coming back to the nutritional aspects, in low-income countries, efforts must be made to increase the intake of protein from cheaper sources such as pulses and fish. Soya bean has been, and still is, a major component of the Japanese diet as exemplified by the recent "soya bean shock" felt by the Japanese people when the United States Government announced a temporary embargo of soya bean. Higher priority must be given to pulses as an important source of protein. Another relatively inexpensive source of protein is fish meat. Mr. T. Hisamune, President of the Japan Marine Fishery Resources Research Centre, who made an opening address at the Eighth Session of the FAO Committee on Fisheries last April, emphasized the importance of coastal and inland water fishery as an important source of obtaining animal protein in low-income countries. This type of fishery is usually operated by small-sized or family-based management. Until recently Japanese fishery was broadly based on such small-scale fishing, and in view of the **widespread under-utilization of fishery** resources in coastal or inland water grounds, and of the serious shortage of animal protein in many of the developing countries, due attention should be paid to the potentiality of developing this type of fishing.

Lastly, there are the population problems. Most of the industrialized countries are gradually approaching zero population growth due to the steady decline in their birth rates. It would be desirable, however, to accelerate this process and reach a static population as early as possible in those countries in view of the high per capita consumption of energy and other natural resources and the effect of this consumption on the environment. Developing countries are also expected to reduce the rate of population increase although they will reach zero growth at a somewhat later stage than the developed countries in view of their present high rate of population growth. The question is how to shorten the transition period from a stage of high birth and high death rates to that of low birth and low death rates. Here an integrated attack on the problem will be needed, as mentioned earlier in this lecture.

World food problems are now facing a cross-road. Shortages of food will be more serious than surpluses. If there is a danger of shortage, rather than surplus, apart from short-term fluctuations, we must realize that what we are doing now will have a far-reaching effect on the coming generations. We should be aware of the possible consequences of the conduct of our current generation on posterity.

Thank you.