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# FOOD PROBLEM IN INDIA

*By B. L. Jalan*



## INTRODUCTION

The recent statement made by the Hon'ble Dr. Rajendra Prasad, describing the food situation in India as "very grave," owing to insufficient grain stocks under the control of Government, which may eventually lead to intermittent breakdown of rationing in different parts of the country and drastic cuts in the existing rations, shows that the food problem in India has reached a critical stage. An attempt has been made in this brochure to place before the Government some concrete suggestions which may help to permanently improve the food situation in the country in a short period of time.

It is a paradox of Indian economic life that an agricultural country like India, where about 75 per cent of the people depend upon land for their livelihood, should now be importing food grains from abroad to the extent of 100 crores every year. This paradox of Indian economic life is essentially due to the scant attention which had been paid to the agricultural development in the past and keeping it in mediaeval stage in face of the vast economic changes which the country was undergoing during the last few decades. Now the very existence of

India depends upon providing the hungry teeming millions an adequate amount of food, which if not provided, is a dangerous signal of Revolution.

The high prices paid by India for importing foodgrains deserve the immediate serious attention of the U.N.O. as in the interest of goodwill and harmony it is necessary that the prices must be regulated. Again, in view of the heavy imports, the apparently large capital expenditure on agricultural developments, will produce reproductive influence on the whole economic fabric of the life of the nation with the result that not only we will have a larger quantity of food in the country but also an increase in the size of national income and dividend of the country.

The suggestions offered relate to the various aspects of agricultural developments starting from :—

- (1) Increasing the extensive and intensive margins of cultivation
- (2) to a balanced diet involving the growth of more vegetables, fruits, fats and oils and fish, meat and eggs for non-vegetarians.

I may mention here that the problem of improving the breed of cattle is second to none in agricultural development of the country.

If any of the suggestions given in this brochure, namely,

- (i) bringing under plough every inch of land by legislation,
  - (ii) increasing the percentage of double-cropped area by State compulsion,
  - (iii) compulsory use of better varieties of seeds and manures etc.,
  - (iv) larger growth of fruits, vegetables, etc.,
- are adopted, India will be self-sufficient in food supply.

However, if all the suggestions are simultaneously given effect to, India will be in a position to export agricultural products. This will to a large extent reduce the gulf between the rich and the poor. It will also help in the rapid industrialization of the country, as the increased purchasing power would be the greatest asset for the country. Never before was the problem more important than it is today as the increase in agricultural production will give every Indian a square meal, comfortable home, sufficient cloth, medical help and education.

Let us remove the inferiority complex which has developed in our country as a result of foreign

dependence for over 250 years and give the scheme a practical shape which will automatically make India rich in every aspect of its economic life.

May I appeal to the people of our country to play their part as citizens of free India in the achievement of his object so as to make our Motherland richer and happier ?

In conclusion, I would like to mention that I have simply stated the rough outlines of the scheme in this brochure, the details of which I will be only too happy to discuss with the Government in order to give the scheme a workable practical shape immediately, as it is based on mature consideration and deliberation from a commercial point of view.

**B. L. Jalan**

# FOOD PROBLEM IN INDIA

## Introduction

No single problem—economic or political—is more important today than the problem of increasing the food supply of the country. Of the world deficit of 18 million tons India's deficit is 4.5 million tons, i.e. 25 per cent—a figure which shows the magnitude of Indian deficit *vis-a-vis* world deficit.

With the division of the country into Indian Union and Pakistan the problem of food supply has become all the more complicated and the overall food shortage may assume a different shape in the two Dominions. In respect of food supply India produces 1,72,29,000 tons of rice and 41,99,740 tons of wheat as against 53,76,000 tons of rice and 27,85,260 tons of wheat in Pakistan. The food shortage is fast becoming a chronic disease for the country. The efforts of the Government during the past few years have been more directed towards procurement plans both from abroad and within the country and its internal distribution rather than increasing the aggregate food supply of the country. This is an unhappy and unhealthy situation. For, after all, how long can India depend upon imported food supplies from

abroad ? Besides, such huge foreign imports at very high prices are causing far-reaching consequences on the balance of trade and economy of the country, rural and urban. . It may be pointed out that the Government of India had to invest Rs. 100 crores in the purchase of foodgrains from foreign countries. The Hon'ble Dr. Rajendra Prasad pointed out that India had to sustain a loss of about 20 to 25 crores of rupees in keeping the prices of imported food grains in level with prices obtained in India. It is impossible for a poor country like India to balance her foreign trade and spend such huge sums of money for importing foodgrains from abroad. Thus one of the most important problems with which the country is faced at the moment is to permanently raise the food production in order that the foreign trade and the economic structure of the country may be put on a sounder, healthier and a more stable basis.

### **The Problem of Price**

Apart from the magnitude of the amount, the price which India has to pay is very heavy. For example, Australia which charged 44 shillings for 6 bushels of wheat in 1945 is now charging double that price. Similarly whereas England bought wheat from Canada at \$ 1.60 a bushel of 60 lbs., India is now paying upto \$2.5 to \$2.75 a bushel to America.

It is interesting to point out that in 1940 India was paying \$ 1.60 per bushel.

### **Methods to Remove the Deficit**

Broadly speaking there are three important methods to remove the deficit :—

(1) To increase the extensive margin of cultivation, that is, to utilise the lands which are not cultivated at present e.g. (i) waste uncultivated land and (ii) vacant land e.g. lands lying vacant on both the sides of the Railway lines, etc.

(2) To increase the percentage of double-cropped area and to increase the yield per acre.

(3) Introduction of a balanced diet e.g. by increasing the consumption of vegetables, fruits, fats and oils, milk, meat, fish and eggs.

#### **(1) Utilisation of Surplus Land**

Broadly speaking about 18% of the area in British India i.e. 94 million acres is classified as cultivable waste. No doubt it is true that in some cases the cultivation of these plots of land may require either improvement of drainage or provision for irrigation facilities, or prevention of soil erosion, all of which need apparently heavy capital expenditure. Nevertheless, if the State follows a policy of rapid capital development a greater part of this cultivable waste can be soon brought under the

plough and substantially increase the food supply of the country.

## **(2) Intensive Methods of Cultivation**

The percentage of area cropped more than once hardly comes to 20% of the total cultivated area. With better methods of cultivation 2 or 3 crops can be raised and the food supply can be increased substantially. India may take lessons from Chinese agriculture where land is scarce and the Chinese cultivator squeezes the last ounce of nutriment out of such lands. Compulsory rotation of crops is necessary to get better yield and larger quantity of production.

## **(3) Balanced Diet**

Another important aspect in the problem of food shortage to which attention may be drawn is the question of a balanced diet. The food problem so far has been studied merely from the point of view of quantity and not from the point of view of its quality, especially its nutritive value. If a balanced diet is taken into consideration the overall food shortage of the country for cereals and pulses would be reduced and we would need a larger quantity of sugar, vegetables, fruits, fats and oils, milk, meat, fish and eggs. The nutritive value of these commodities would easily make up the food value contained in cereals and pulses.

Broadly speaking it has been estimated that for an adult male in India 2,600 calories are required while for an adult female the requirements are 2,100 calories. Hence a balanced diet in India should include the following :—

Articles.	Oz. per day per adult:
Cereals	.... 16
Pulses	.... 3
Sugar	.... 2
Vegetables	.... 6
Fruits	.... 2
Fats and oils	.... 1.5
Whole milk	.... 8
Or meat, fish and eggs	2.3

It is not possible to give any accurate idea of the overall requirements in India in respect of vegetables, fruits, fats and oils, milk, meat, fish and eggs, as up-to-date statistics are not available. Besides, with the division of the country into India and Pakistan it would be very risky to give any cut and dried figures for the requirement of India as a whole. Nevertheless, it is admitted by competent authorities that the deficiency in Indian diet in vegetables, fats and oils, milk, fruits, sugar, meat, fish and eggs is very great. It has been estimated that deficiency in the case of vegetables at least comes to 69.9, fats and oils 70.8,

milk 67.3, sugar 10.0, meat, fish and eggs over 75% respectively.

This absence of balanced diet is mainly responsible for the low expectation of life in India. It is instructive to point out that the average life for a male and female in India was 26.91 and 26.56 years respectively in 1931. In England it was 55.62 for male and 59.52 years for a female. In Germany, Norway, Holland and Switzerland the expectation of life is about 55 years. Thus in India on account of want of balanced diet people live a short life.

### **Fruit Culture**

The Government must distribute better types of seeds to popularise fruit growing. It may be pointed out here that India needs a larger quantity of fruits rather than different varieties and it must be the aim of the Agriculture Department to plant such trees which shall give a larger yield in a short period of time. The increase in fruit cultivation is one of the easiest and best methods to reduce the food shortage in the country.

Fruits must form an important part of diet in India. This can be done by increasing the acreage under fruit cultivation and improving cultural practices in orchards for increasing the yield per acre. The growing of short term fruits like bananas,

papayas, pine apples, etc., can be encouraged with little efforts in a large number of houses in cities and villages. It is noteworthy to point out that in Bihar alone the acreage in fruits has been increased by 7,543 acres which will yield about 23,000 tons of fruits from next year. It may be pointed out here that the yield in the case of fruit trees depends upon their capacity to bear fruit and the care and attention paid to them. The growth of better nursery plants is one of the soundest ways for putting the fruit industry on a commercial and profitable basis. It may be suggested that in order to popularise fruit eating, fruit canning industry must be developed on a large scale so that the seasonal fruits which are wasted can be preserved for consumption in off season. If cold storage facilities are provided, the huge quantity of fruits which go to waste, can be preserved for off season and the supply can be evenly spread over all the year round. An Institute of Fruit Technology should be started in order that the fruit industry may receive scientific assistance. It is encouraging to note that the Indian Tariff Board has recently recommended to the Government the grant of protection to fruit industry. The Government, it is learnt, has accepted the recommendation.

### **Improvement of Cattle**

In an agricultural country like India the impor-

tance of milk products is very great. The *per capita* consumption of milk in India is 6.6 ounces, while in Canada, Denmark, Great Britain and New Zealand it is 58.8, 40.3, 40.7, 55.6 ounces respectively. The growth of population coupled with the deterioration in the quality of cattle shall further reduce the milk consumption of the people in future. The Government must provide stud bulls for the purpose of breeding and the policy of segregation must be adopted to improve the breed of cattle in India. India possesses one-third of the cattle population of the world but the difficulty in India is that the quality of cattle is very poor. The number of cattle in 1905 was 90 millions which increased to 170 millions in 1935—an increase of 88.2 per cent. One of the greatest problems which India is facing today is the shortage of grazing land and consequently fodder supply for the cattle. The pressure of population on land is so heavy that the problem of fodder is becoming acute. The country cannot feed at the present time more than two-fifth of the total number of cattle. Thus one of the most important problems before the country is to improve the quality of milch cattle so that the supply of milk in India can be increased considerably. It has been estimated by Dr. Burns that proper feeding, breeding, management and disease control will result in

increasing the milk supply in India by 75% namely, 30% by feeding, 15% by breeding, 15% by management and 15% by disease control. If proper attention is paid to improve the quality of cattle in India the Indian diet will soon become a balanced diet and the deficiency in its caloric value can be removed quickly.\*

### **Vegetable Cultivation**

The growing of vegetables must also receive the immediate attention of the Government and the huge plots of land which lie vacant or are not properly utilised must be reserved for vegetable growing. The application of chemical manures and scientific methods of cultivation will increase the yield of vegetables. Vegetables could easily be grown in most of the houses having compounds. Here again the problems of good seeds, manures and water supply are important. It must be the immediate aim of the Government to see that the cultivation of vegetables which requires small plots of land, is doubled at once so that the deficiency in food could

\*Incidentally, I may mention here that when the Danish Trade Commissioner met Mahatma Gandhi, along with me, at Calcutta, Mahatmaji asked him whether his Government would help India to improve its breed of cattle in which they have specialised. The Trade Commissioner assured Mahatmaji of his country's fullest co-operation and help in the matter.

also be minimised by this method. Besides, if means of transport are improved, vegetable growing can be switched from the suburbs of big cities to far interior in the countryside.

Besides the above three methods the following suggestions may be offered to increase the country's food supply :—

### **I. Provision of Irrigation Facilities**

Better provision of irrigation facilities in the shape of wells, canals and tanks should at once be provided for. Each village must start construction of wells immediately. Out of the total area of 209 million acres under cultivation in British India only 54 million acres were irrigated.

### **II. Improved Fertilisers**

Distribution of improved fertilisers should be done through multi-purpose Co-operative Societies. Attempts should be made immediately to use better and more fertilisers to improve the yield of crops. In this connection, fertilisers in large quantities may be imported from foreign countries. The indigenous varieties should also be utilised and the huge quantity of cow-dung which is burnt and wasted must be utilised. It is interesting to point out that in Japan every morning the peasants carry nightsoil and even urine to their fields for purpose of manure. In India even cow-dung does not go back to the land.

### **III. Construction of Storage Houses**

It has been estimated that a large quantity of food grain is wasted on account of the defective methods of storage. The Government should provide modern pucca store houses so that the quantity which goes to waste on account of it should be stopped at once.

### **IV. Improved Varieties of Seeds**

The Government must start a number of Co-operative Shops in the countryside to distribute improved varieties of seeds at cheap rates. The acreage under improved seeds is 3.5 and 6.96 million acres out of a total acreage of 83.43 and 33.61 million acres in the case of rice and wheat respectively. The total food supply can be immediately increased if the yield of the crops is increased. The yield of Indian crops is very low as compared with some other countries. For example, whereas the yield in tons per acre of rice in U.S.A. is 1.01, in Japan 1.61, in India it is only 0.35. In wheat the yield in U.S.A. is 0.37, in Australia it is 0.42, in Canada it is 0.52, in India it is only 0.32 tons per acre. The yield of sugarcane in U.S.A. is 20.06, in Java it is 54.91 and in India it is only 12.66 tons per acre.

### **V. Havoc due to Rats**

The havoc due to rats is very large in India and a considerable portion of the food supplies is destroy-

ed by them. Experiments show that a rat consumes 6 lbs. of grain a year ; and since the total rat population is estimated between 800 to 1000 millions, the loss caused due to rats may roughly be estimated about 2 million tons. A campaign to avoid this huge waste must be started at once. This will considerably decrease the overall food shortage.

### **VI. Reduction of Waste**

Experience shows that some portion of the crop is wasted in harvesting, winnowing and other agricultural operations before the crop is actually stored either on account of wild animals or defective agricultural practices. An all-out effort must be made to reduce the huge wastage either due to wild animals or defective methods in harvesting or on the threshing-floor. The waste of every ounce of cereals must be stopped.

### **VII. Co-operative use of Agricultural Implements**

Agricultural implements of improved varieties should be supplied to the cultivators and some of them should be used on a co-operative basis with the help of Village Panchyats.

### **VIII. Legislation**

Legislation must be passed at once which must embody (a) compulsory utilisation of all surplus land, (b) compulsion in carrying out better

agricultural methods and practices including rotation of crops, (c) empowering Panchyats to control and co-ordinate agricultural problems and policy, (d) propaganda for improvements in agriculture, (e) empowering village Revenue Authorities i. e. Patwaries, Deputy Collectors and Collectors to increase the food supply. The village Panchyats must be the starting point in all agricultural policy. They must ultimately be made responsible to increase the supply.

From the methods suggested above it will appear that with an increase in the use of better and improved varieties of seeds and large irrigation facilities, and larger utilization of waste and vacant uncultivated lands, the food supply of the country can immediately be increased and the deficit of  $4\frac{1}{2}$  million tons removed. For, it must be remembered that agricultural production has a special advantage, often overlooked, in that it secures a quick return for investment and programmes and policy can be easily tested and adapted to changed circumstances in a very short period of time in quick succession to results obtained.

Finally, the problem of self-sufficiency of food in India resolves itself not only in the increase of the growth of cereals and pulses but also of

vegetables, fats and oils, milk, fruits, sugar and for non-vegetarian people meat, fish and eggs. If the production of these things can be increased, India can have a balanced diet for every person and the chronic shortage in food supplies can be permanently removed. The problem thus needs attention not from one point of view but from so many points of view. The most important consideration which the Government must keep in view is to improve the quality of cattle, growing more fruits and vegetables so that a balanced diet may be evolved and its quality may be improved. In this task the public can co-operate with the Government to a large extent and lend their helping hand in solving the problem in a very short period of time.

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It is encouraging to note that the U. P. Government is contemplating an Ordinance to bring under cultivation all lands which lie vacant. If similar Ordinances are passed by other Provincial Governments the extensive margin of cultivation can be substantially increased.

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Since this brochure went to the press the Government of India have appointed the *Food-grains Policy Committee* with a view to increase domestic production and procurement and to suggest modifications in the foodgrain policy so far pursued. In response to the terms of reference of the Committee, I am offering the following further suggestions :

The procurement machinery can be improved if the Government of India undertake the following measures :

### **A—Re-organisation of Agricultural Statistics**

The agricultural statistics must be thoroughly re-organised and the Government must be in possession of accurate data regarding the productivity of each cultivator's holdings. Unless this is done it is difficult for the Government to know exactly the total productivity of foodgrains and other crops in the country. It is too well-known that the present crop estimates are, more or less, very rough estimates and, it is commonly felt that they do not give a correct picture of the total agricultural production of the country. The Government must so organise agricultural statistics that it must be in possession of the

accurate yield from all holdings for the past three years with a view to compare them whether the agricultural productivity has increased or deteriorated. Unless this is done a long range policy in agricultural production cannot be followed.

### **B—Procurement Bonus**

It has been noticed that cultivators do not part with all their produce, hence, the Government, in order to increase procurement, should announce the policy of giving procurement bonus over a certain minimum amount fixed by the Government for tendering food grains, say, 10 to 20 per cent more than the price paid to him over the previous amount tendered by him. This policy is in National interests at large as the money will remain in the country and will improve the economic status of the cultivators. It may be pointed out here that the Government of India is paying about Rs. 25 crores to exporting countries in order to keep the parity of price level of foreign produce in line with the lower prices prevailing in India.

### **C—Opening of Co-operative Shops**

With a view to encourage larger sales by cultivators the Government should open a net work of co-operative shops in the country-side which must sell consumer goods, cloth and other necessities

of the cultivators at controlled prices. The cloth sold at these shops may be at ex-mill price to induce cultivators to part with a larger amount of food grains. The cultivators, in lieu of the food grains tendered by them, may be given coupons with the help of which they may buy cloth, agricultural implements, manures, seeds, lanterns, kerosene oil, salt etc. The policy will produce very good results and the habit of hoarding of food grains by the cultivators will largely disappear, as for want of such necessities they do not fully surrender their produce.

#### **D—Production Bonus**

I may suggest that the Government should grant production bonus to the cultivators who produce beyond a certain minimum estimated figure put by the Government for each holding. This will encourage them to increase agricultural productivity by applying better types of manures, exotic varieties of seeds, whenever it is possible to get a higher yield, agricultural implements and other devices to improve production. This policy is urgently called for as only the production bonus inducement will go a long way to encourage the cultivators to produce more. The production bonus will also not be a loss to the country as we are already paying Rs. 25 crores to keep to the price

level of imported foodgrains in harmony with the prices prevailing in India. The Government may grant production bonus, say between 10 to 20 per cent. on each maund of grain beyond a certain figure which, the Government may think, would be a fair estimate for production on each agricultural holding. This, of course, requires an accurate estimate of the yield from each holding, without which the payment of production bonus is not possible. The policy should be carefully worked out and is to be applied with caution under different circumstances for different crops.

If some of the suggestions offered above are put into effect, there can be immediately a large procurement from the country-side as well as production will also increase in a short period of time. The starting of co-operative shops to supply the requirements of the cultivators both to increase production and for his domestic needs is urgently called for, as it is the best inducement which the Government may offer to the cultivators to part with their produce. The money so paid would also not be misused, as experience shows, that a large income of the cultivator's, without proper safeguards, is often misused.









