

REPORT

ON

INDIA'S FOOD CRISIS & STEPS TO MEET IT

by

THE AGRICULTURAL PRODUCTION TEAM

sponsored by

THE FORD FOUNDATION



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INDIA'S FOOD CRISIS

AND

STEPS TO MEET IT

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THE FORD FOUNDATION

April 3, 1959

Shri A. P. Jain
Minister of Food and Agriculture

Shri S. K. Dey
Minister of Community Development and Cooperation

Dear Mr. Ministers:

We deeply appreciate the invitation you gave us to come to India to study, with you and your associates, India's food production problems and targets. As we have worked and studied here, and seen the magnitude of the problems ahead, we have felt a great sense of humility and profound seriousness at attempting the assignment you gave us—of helping India shape proposals for a coordinated effort to increase food production on an emergency basis. We have reached the inescapable conclusion that a rapid increase in production of food is India's primary problem in achieving human welfare, social justice and democracy over the next seven years.

The report of our findings and our proposals for emergency action, which we transmit here, reflects this conclusion and concern.

India is making steady progress in agricultural production. Since Independence, it has come far in its efforts to improve the conditions of its millions of rural people and farmers. Many important gains have been made.

We have recognized, as have India's leaders, however, the stark threat of a 28-million-ton shortfall in food-grain supplies by the end of the Third Five Year Plan (1966), unless rates of increase in food production are immediately accelerated to three times their present speed. We feel confident that such an ominous crisis can and will be prevented.

Technical descriptions of the main food production problems are set forth briefly in the report.

The findings and proposals represent the combined judgment of the Ford Foundation Team. One of our members was resident in New Delhi, the other twelve reached India January 23-25, 1959, and remained until April 4-7. Three of us had been in India before, and all have had experience in the technical review of agricultural and home science problems in countries other than our own. Each of us has had long association with agricultural production problems in the United States, and most of us worked in our own nation's mobilization to solve food problems in times of economic depression and war.

While the report is our sole responsibility as the Ford Foundation Team, we have profited by close association with Indian specialists and administrators deputed to assist us, and with the many other Indians who discussed and illumined many problems and programmes. We are grateful also for the help of other Americans working in India, especially of the resident members of The Ford Foundation, and of the Rockefeller Foundation.

We want in particular to thank Dr. Douglas Ensminger, The Ford Foundation Representative in India, for the valuable counsel and other assistance he rendered the Team in all aspects of its work.

Members of the Team were travelling during two-thirds to three-fourths of their stay in India, first as a total group, thereafter singly, or

in pairs and small groups. Every State in India was visited. In nearly each instance we were accompanied by our Indian associates. All members of the Team met and interviewed villagers, a wide variety of non-official leaders, and officers at all levels from Gram Sevak to Chief Minister in the States, and in the offices and Ministries at the Centre.

Though in India briefly, we could not have remained longer away from our normal duties in the U. S. We have tried to observe intensely and to study earnestly. At times the vastness of problems, and the almost dramatic solutions indicated, nearly threatened our objectivity.

In presenting the report, we acknowledge with deep appreciation the universal welcome we received in villages and in offices of blocks, districts and States; the continual helpfulness of our Indian colleagues; the facilities made available for travel and study; the arrangements made for interviews, visits, and conferences; and the cordial hospitality that made our experience pleasant despite the seriousness of the mission.

In aiming for brevity, we may have treated too lightly much of the excellent work we have seen. We have dwelt at length only on some of the problems that seemed to us most urgent. We have tried to be as specific as possible for clarity. Yet we realize that similar goals may be reached in different ways.

We leave India in hope and confidence that the problem of food production will receive the necessary priority throughout the Third Plan period and that India will succeed in providing food enough for its growing population—the first and basic step, we believe, in achieving India's goal of social justice.

Sincerely,

Sherman E. Johnson

Dr. Sherman E. Johnson (Chairman)

Marvin A. Anderson

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THE CRUCIAL DECISIONS

This is a report on India's food crisis. It reaches the inescapable conclusion that an immediate and drastic increase in food production is India's primary problem of the next seven years. It points out that without food enough, India's hopes for improving human welfare, achieving social justice, and securing democracy will become almost impossible of attainment.

The report has been prepared by an American team of agricultural specialists brought to India at the request of the Ministry of Food and Agriculture and the Ministry of Community Development and Cooperation, with the sponsorship of The Ford Foundation.

Naturally, many aspects of India's agricultural problems differ greatly from those of the U.S. But solutions lie in the common experience of world agricultural development. It was in this context, and with full regard for India's present resources and its potential development, that the Team approached its serious assignment.

Within the time allotted, the Team made every effort to study Indian food production problems carefully and thoroughly. Members of the Team travelled extensively in all the States of India, interviewed Government officials at all levels, village cultivators and other private citizens, and studied, wherever possible, such relevant statistics, documents and memoranda as were made available. The findings and conclusions of the Team are contained in the three parts of the report which follow.

Not only in its travels, but in every step of its inquiries and discussions, the Team had the able assistance of Indian associates deputed to work closely and continuously with the Team. With the help of these associates and of discussions with Indian leaders, the Team, in studying food production problems, bore constantly in mind the broad range of Indian objectives for industry, employment and general economic development and the relationship of agriculture to them.

As the report itself repeatedly emphasizes, there are no simple solutions to India's food production problems. No two or three easy steps can be taken to allay the impending crisis.

The facts and analyses which lie behind the Team's conclusions are found in the body of the report. But as the Team discussed its findings, with its own members, with its Indian associates, and with Indian leaders, certain crucial issues, certain major proposals stood out above all others for immediate attention and action.

1. **The Third Plan Target:** *A Third Plan target of 110 million tons of food grains by 1965-66 is reasonable, in view of India's rapidly rising population. Eighty million more people, or a total population of about 480 millions, are expected by the end of the Third Plan. A 110-million-ton target is needed to provide food enough for the added millions, and to provide for some dietary improvement and a safety margin for poor crop years and emergency conditions.*

2. **The Impending Gap:** *India is making steady progress in increasing food production, but the rate of increase must be tripled, to meet the Third Plan target. If India's food production increases no faster than present rates, the gap between supplies and target will be*

28 million tons by 1965-66. This will be about 25 per cent shortfall in terms of need. *No conceivable programme of imports or rationing can meet a crisis of this magnitude.*

3. The Need for Emergency Action: A Third Plan target of 110 million tons of domestic production can be achieved. The best in Indian agriculture is comparable to the best in other countries. The task is to develop ways of raising the low average to the highest levels which some Indian cultivators have achieved.

A 110-million-ton target, however, can be realized only if an all-out emergency food production programme is undertaken. Food production must be given the highest priority. It must have the sponsorship of topmost leaders who can and will mobilize the nation for action to meet the impending crisis.

4. The Need for Stabilization of Farm Prices: Unless the cultivator is assured of a floor price for his food grains, he will be unwilling to invest in fertilizer, better implements, improved seed and other expenses necessary to increase production.

Recommended incentives for increased production are:

- (a) A guaranteed minimum price announced in advance of the planting season.
- (b) A market within bullock-cart distance that will pay the guaranteed price when the cultivator has to sell.
- (c) Suitable local storage. *Immediate consideration should be given to using funds available from grain imports under PL 480 and other special programmes to construct needed godowns in village areas.*

5. A Public Works Programme for Increasing Food Production and Village Employment: The unemployed and underemployed in the villages represent a waste of resources that should be used to produce more food. Moreover, about 45 million of the 80 million increase in population will be rural people. The Team recommends a public works programme for projects requiring primarily hand labour, such as contour bunding, land levelling, surface drainage, irrigation wells and tanks. Such work will contribute directly to increasing food production, provide income for needy people, and will not be inflationary.

6. Priorities for Chemical Fertilizers: Fuller use of manures, composts, and green manures is commended. But at the very best, these can substitute for only a small fraction of the chemical fertilizers needed to meet Third Plan food targets. Only with more abundant chemical fertilizers will benefits from irrigation, bunding, improved seeds, and other facilities be realized.

The targets for fertilizers to be made available for the end of the Third Plan, developed in the Ministry of Food and Agriculture, are soundly based but conservative in relation to need. These amount to 1,500,000 tons of nitrogen, 750,000 tons of phosphoric acid, and 200,000 tons of potash. *Even though conservatively, they mean a 9-fold increase in use of nitrogen and considerably larger increases of the others, the use of which has just started.*

Hence the Team recommends that *procurement of fertilizers and means of producing high-analysis fertilizers be given a top priority, including foreign exchange as necessary.*

7. Intensified Irrigation and Drainage Programmes: India is using only a small portion of its potential water supply, which is one of the largest in the world. India now gets only one-fifth to one-fourth ton increase in crop yields on irrigated lands as compared to non-irrigated lands. Moreover, only about 12 per cent of irrigated acreage grows more than one irrigated crop per year. India cannot afford this waste of resources. Better water management is needed.

✓ The Team believes that *India can make greater and more immediate gains in food production by intensifying expenditure of time and effort on water management than by constructing large-scale irrigation projects which take years to develop.* The Team recommends that the Third Plan allocate substantial funds for technical assistance to aid cultivators in making better use of available water. Provision must also be made for a more comprehensive approach with coordination of all relevant departments. The Team also recommends that more emphasis be placed on irrigation projects which will yield rapid returns in food production, such as tube wells and shallow masonry wells.

Millions of acres could be reclaimed and made more productive by drainage improvement. The Team recommends that *drainage improvement be given a high priority, and believes that a unified agency is necessary in each State for coordination and improvement of drainage.*

8. Selection of Certain Crops and Certain Areas for More Intensive Efforts: There are tremendous physical potentialities for increasing production per acre if they can be achieved. There are no inherent soil, climatic or other physical reasons for the present low yields. But there are no blanket proposals that can be generally applied to reach the Third Plan target. *The Team recommends that those selected crops and those selected areas in each State should be chosen which have the greatest increase potentialities.*

Efforts to stimulate food production should be directed more heavily to *rice and wheat*, which now make up more than half of total food grains. With hybrid maize, India can in 5 to 7 years make more progress in increasing yields than the U.S.A. made in 20 years.

More effort should be concentrated on the most promising areas for wheat and rice production, i.e., those which have had the most rapid rate of increase in the recent past, and which have also the highest potential for rapid large increases in the years immediately ahead. For rice, there are 25 important growing districts; for wheat, there are selected districts in the Punjab, U.P., M.P. and Bihar.

These areas will, the Team believes, increase India's food production more rapidly than others, if given allocation of fertilizers in combination with other improved practices, such as plant protection measures, improved seeds, and water for irrigation. Attention to other areas should not be reduced. But, in the national interest, the Team believes that increased effort should be immediately directed to the most responsive areas.

9. Security of Land Tenure and Land Consolidation: Assurance of stability of tenure can contribute substantially to food production. The Team's recommendation is that land ceilings and other land reforms should be settled as quickly as possible, and stay settled for the Third Plan. Firm plans should be developed immediately to schedule the completion of consolidation of fragmented holdings, village by village, as soon as possible. Improved coordination must be provided. In some Indian villages, consolidation has been carried out in ways to increase production greatly; in others, it has not, because of inadequate coordination with those responsible for planning water control structures and boundaries of holdings.

10. Immediate Large-Scale Credit Through Cooperatives: The present marketing, supply and credit services are major deterrents to increasing food production. Eighty-five per cent of credit is now supplied by money lenders and other individuals. Most marketed grains are sold to local traders at harvest time at depressed prices. Strong cooperatives can break these bonds.

To help cooperatives do so effectively, the Team's major recommendations are that (1) Government must be prepared to provide loans and to assist in developing capable management; and (2) standards of credit worthiness must be redefined to encourage production loans on the basis of expected crop yields and repayment ability, instead of land security.

11. Progressive Reduction of Cattle Numbers: The excessive animal population competes with people for the products of the land. The Team recognizes the limitations imposed by beliefs concerning cattle slaughter. Other ways of dealing with the problem are possible.

The Team recommends that legislation be considered providing for: (1) a tax policy which makes maintenance of useless cattle a burden on their owners (tax receipts could go to villages for improvements); (2) confinement of all bulls and mandatory castration of all bulls not kept for breeding; (3) measures to control open grazing; (4) establishment of desiccating plants to process fallen animals, with incentive payments to owners who bring in fallen cattle.

12. The Urgency of a High-Level Coordinating Food Production Authority: Far-reaching centralized authority with a clear line of command and execution alone can meet the challenge of growing more food. The Team believes that such authority is essential to allocate resources on a priority basis—such as personnel, fertilizers, steel (for sprayers, godowns, fertilizer plants, etc.); to coordinate irrigation, drainage and soil management programmes; and to enforce policy decisions giving priority to food production. The administrative structure, moreover, must be simplified and clear lines of authority and responsibility established at all levels of Government, so that policy decisions are carried out to the village level.

13. The Role of Community Development and the Technical Ministries: Community Development and all technical agencies must be geared to mobilization and strengthening of village leaders and organizations, and effective channelling to village people of all information and help necessary to increase food output. The Team believes, therefore, that *all Ministries concerned with any aspect or programme*

relevant to food production must give top priority to food production now and for the period of the Third Plan.

14. **India's Capacity to do the Job:** While the Team has been concerned with India's problems and has highlighted the critical issues, the Team leaves India confident that it is within the capacity of India's people to mobilize to meet the great crisis before them.