



YOKA

No-22

IRON ORE FROM  
KIRIBU  
TO JAPAN

Report on Paper 2-1

30 APRIL FOR 30 ADVANCE

**NDC Decides Fourth Plan Approach : Pages 1-7**

**PRIORITY FOR AGRICULTURE, EVERYDAY GOODS**

## ABOUT YOJANA

*Yojana* seeks to carry the message of the Plan to all sections of the people and to promote a more earnest discussion of problems of social and economic development.

It is issued every other Sunday in two separate editions, English and Hindi.

The Advisory Board of the journal consists of the Minister of Information & Broadcasting, Minister of Community Development and Co-operation, Minister for Agriculture, Mr. T. N. Singh, Mr. Shriman Narayan, Mr. Akshaykumar Jain, the Secretary, Ministry of Information and Broadcasting, and the Secretary, Planning Commission.

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COVER : Photograph by T.S. Nagarajan shows machines and men at Kiriburu.	

### CORRECTION

In the article "Atom in India" in our last issue, a picture caption on page 16 wrongly stated that we had Canadian collaboration on the reactor Apsara. Apsara was designed, engineered and built entirely on our own. Canadian collaboration was secured for the Canada-India Reactor.

# Economists Analyse Fourth Plan Approach

*Leading economists will give their views*

*on the Fourth Plan Memorandum*

*as adopted by the National*

*Development Council in*

**YOJANA NEXT FORTNIGHT**

## Letters

### FORMS OF CORRUPTION

MR J.B.D'Souza's article (What is Corruption? *Yojana* September 27) is interesting and thought-provoking. But he has not given a comprehensive classification of corruption. He has omitted corruption through 'sex'.

Since all our activities in the waking state of consciousness are basically concerned with the satisfaction of the digestive and genital systems, any sort of corruption falls under the following two categories : (1) gastric corruption, and (2) genital corruption. Of course, there is the third category—"mental corruption". Socrates was condemned for corrupting the minds of the Athenian youths.

While 'cash' or 'kind' would come under gastric corruption, nepotism, like appointing a brother-in-law, could be classified under genital corruption.

In certain species of flies, for example *Hypoderma bovis* (warble flies), the males have no mouth parts. They just live for the sex act. There are people of the warble fly type among those in power. They are the 'professional' sexual athletes. With them 'women' can succeed, when money fails. Usually a combination of money and sex canalises power into a corrupt action.

Patna.

DEMODEX

### SONS AND DAUGHTERS

I congratulate (Miss) Asha Jain on her views ('Sons and Daughters', *Yojana*, September 13) against the parents' unjustified preference for sons. There is a tradition in our country that only sons can look after parents in their old age. Accordingly parents try again and again to have a son, ignoring the importance of a daughter. The present social set-up should be changed and the idea of preference for sons should be removed as it affects the family planning scheme. The Government should also enforce the anti-dowry law more effectively so that daughters may not be considered burdens on the parents.

Gauhati.

P. UPADHYAYA

## WHAT THE PEOPLE NEED

THE National Development Council has indicated the objectives and size of the Fourth Plan. This has been done when there are still eighteen months of the Third Plan to go, so that the changeover to a higher gear in 1966 will be smooth and efficient.

To move faster and to attempt something bigger, as the Prime Minister told the National Development Council, is inescapable. A larger population will be demanding more of food and the articles of daily use. There will be need to provide jobs for at least 24 million—the number of those who will enter the labour force. As the same time, the backbone of development, heavy industries, must be taken care of.

If, at the present moment, one sees frustration around it is because of the sluggishness in production in the last two or three years. It is this lag in production that has caused the spurt in prices. The remedy, as Mr Lal Bahadur Shastri has rightly said, is more production and brisker growth.

When the Third Plan was drawn up, it was conceived as the first stretch of a fifteen-year period during which sound foundations of self-sustaining growth would be laid, economic disparities would be reduced, minimum levels of living would be ensured, and jobs would be provided for all those who ask for them. Ever more because of the difficulties of the present, the move towards a better life has to gain momentum in the Fourth Plan. There has to be a rapid increase in the national product side by side with stability.

That is why a Fourth Plan of between Rs 21,500 crore and Rs 22,500 crore—the size of the first three Plans put together—has been suggested. Outlay of this size, along the pattern of allocations proposed, will see that the basic goods and services required for consumption by the mass of the people will be produced, and external dependence curtailed. The task can be achieved only if the economy grows on the whole at the rate of not less than 6 per cent per year and agriculture at least 5 per cent annually.

Can we achieve it? Certainly, if the administration generates the needed drive and efficiency, and the people develop the necessary discipline. When thinking of the size we should remember that our economy is much larger and far more capable than it was when the First or the Second Plan was drafted. Another advantage is

that there is general agreement on our goal and the path we should pursue. The criticism is mainly in regard to the gap between planning and implementation.

To eliminate this gap is one of the big tasks of the Fourth Plan. Another is to stabilise prices. In the 42 months between March 1961 and September 1964 the rise in food prices was 44.4 per cent, and that in manufactured articles 5.9 per cent. This trend must be halted and the people should be able to get the food, cloth, oil, sugar and medicines they need at prices they can pay. The emphasis on agricultural production, the regulations on distribution, the setting up of the State Food Grains Corporation and the decision to produce consumer goods in the public sector are all aimed at ensuring adequate supply of essentials for the common man. Simultaneously the basic amenities of the rural people, like drinking water, roads and medical aid, will have to be improved and the disparities in incomes and consumption brought down.

The broad outlines of the Fourth Plan are now known. Detailed planning and preparation of individual projects will now be undertaken by the Central Ministries and the State Governments. In this task the Commission will have the benefit of the advice of the National Planning Council which is being appointed and which will consist of eminent experts.

The decade covering the Fourth and Fifth Plans is a crucial period in the life of the nation. In the context of a world economy which is both expanding and changing, the Fourth Plan will provide the main lines of policy and action for India's development over the next few years. The more effectively it is implemented, the larger will be the opportunities which the Plan will create for accelerating economic growth and hastening the process of social change. Every effort will be made to take advantage of these opportunities as they arise. In this manner the Plan can succeed in harnessing more fully the energies and resources of the nation for establishing a progressive and rapidly growing economy, based on high levels of productivity, the application of science and technology and the use of manpower resources, and a truly democratic and socialist society, in which the burdens and the benefits are widely and justly shared. Above all, the Plan must have a positive content for the common man. He has suffered for long and the time has come for him to be assured of his minimum requirements in food, clothing, shelter, medical aid and education. He must get adequate return for his labour and full value for his money. The measure in which these essential objectives are achieved will be an important test of the success of the Plan.

# OUTLAY of Rs 21,500-22,500 CRORE

## SUMMARY OF FOURTH PLAN MEMORANDUM

### OBJECTIVES :

1. To achieve a rate of growth of not less than 5 per cent a year in agriculture; enlarge the income of rural people; and augment supplies of food articles;
2. to ensure the inputs necessary for higher agricultural production;
3. to enlarge the supply of essential consumer goods;
4. to have more materials for house-building;
5. to provide for continued growth in metals, chemicals, machine-building, mining, electric power and transport;
6. to raise productivity through the development of human resources; and
7. to have larger employment and more social justice.

### OUTLAY :

The total expenditure on the programmes of the Fourth Plan will range between Rs 21,500 crore and Rs 22,500 crore.

Of this total, the public sector share will be Rs. 14,500—15,500 crore, the remaining Rs. 7,000 crore being in the private sector.

The programme in each sector will identify those projects which could be taken up in the second half of the Plan, if resources can be mobilised, and the total of the projects so identified will be Rs 1,000 crore. All possible steps will be taken to accelerate the progress in the earlier years so that these additional resources can be mobilised. Careful selection of quick-yielding schemes, advance action, completion of administrative arrangements and posting of trained staff will be among these steps.

### ALLOCATIONS :

The allocations have been tentatively worked out on the assumption that the public sector outlay will be Rs 15,620 crore. Of this, Rs 7,525 crore will be for Central programmes, Rs 7,660 crore for States and Rs 435 crore for the Union

Territories. The allocations under different heads of development are :

	Third Plan anticipated	Fourth Plan (in crore rupees)
Agriculture	1,090	2,400
Irrigation	648	1,000
Organised industry	1,662	3,200
Small industry	233	450
Power	1,187	1,950
Transport & Communications	1,940	3,000
Education	557	1,400
Sc. Research	72	175
Health	345	1,090
Housing & Construction	112	400
Backward Classes	104	205
Social Welfare		65
Labour & Training		145
Public Co-operation		15
Rural Works		25
Rehabilitation	250	50
Miscellaneous		50
Inventories		...
	8,200	15,620

Under the three principal heads, the agricultural sector will get Rs 3,400 crore, the industries and transport sector Rs 8,600 crore and the welfare sector Rs 3,620 crore. These compare with Rs 1,738 crore, Rs 5,022 crore and Rs 1,440 crore respectively. There is a proportionate increase in the share of agriculture, shift from major to minor irrigation, and decrease in provision for power, industry and transport.

Out of the 15,620 crore outlay in the public sector, investments will amount to Rs 12,995 crore and current outlays will be Rs 2,625 crore.

The private sector investment is estimated at Rs 6,980 crore, taking the total investment to Rs 19,975 crore out of the total Plan outlay of Rs 22,600 crore.

The details of the private sector investment are as follows :

	Rs crore
Agriculture	700
Power	50
Small industry	400
Organised industry	2,400
Transport & Communications	650
Education	100
Housing and Construction	1,470
Social Welfare	10
Inventory	1,200

(Note : The NDC decided that the sectoral allocations and priorities should be re-examined.)

### TARGETS :

Estimated on the basis of outlay of Rs. 22,600 crore :

	Third Plan present estimate	Fourth Plan
Food grains	92 m tonnes	120 m tonnes
Jute (bales)	62 lakh	80 lakh
Oilseeds (tonnes)	75 lakh	100 lakh
Nitrogenous fertilisers used	650,000 tonnes	2 m tonnes
Power (installed capacity)	11.7 mkW	22 mkW
Villages electrified	43,000	109,000
Irrigation (additional potential)	20 m acres	13 m acres more
Coal	76 m tonnes	125 m tonnes
Iron ore	26 m tonnes	54 m tonnes
Petroleum refining	12.22 m tonnes	28.25 m tonnes
Cotton cloth (mill)	5,500 m yards	6,000 m yards
Sugar	3.2 m tons	4.5 m tons
Drugs	Rs 175 crore worth	Rs 300 crore worth
Bicycles	1.6 million	3.5 million
Steel ingots	7.4 m tons	16.5 m tons
Aluminium	68,000 tons	240,000 tons
Nitrogenous fertiliser (production)	425,000 tonnes	2.2 m tonnes
Phosphatic fertiliser (production)	200,000 tonnes	1.0 m tonnes
Diesel engines	60,000	140,000
Tractors	8,000	25,000
Power pumps	150,000	300,000
Locomotives	340	450
Machine tools	Rs 25 crore worth	Rs 90 crore worth
Sugar, cotton, cement and paper machinery	Rs 56 crore worth	Rs 150 crore worth
Cement	12 m tonnes	30 m tonnes
Railway freight	225 m tonnes	355 m tonnes
Com. vehicles on road	335,000	596,000
Shipping tonnage	15 lakh GRT	30 lakh GRT
Telephones	810,000	1,500,000
Children in primary and middle schools	6.2 crore	8.35 crore
Children in secondary schools	52.4 lakh	90 lakh
Students in universities	10.82 lakh	14.82 lakh
Technical degree course :		
admissions	27,200	38,900
diploma	50,700	68,600

### EMPLOYMENT :

When the Fourth Plan starts in April 1966, the number of unemployed (the back-log) is likely to be 12 million. During the years 1966-71 an additional 23 million

(Continued on Page 7)

## AS BIG AS FIRST THREE PLANS PUT TOGETHER

# Agriculture is Priority No. 1

## OVERALL GROWTH RATE TO BE ABOVE 6 PER CENT

### Speeding up of Family Planning and Consumer Goods Output: Continued Progress in Metals, Machines, Fuels

#### N.D.C. DECISIONS ON 4TH PLAN

REPORT BY EDITOR

**T**HE Fourth Five Year Plan will aim at a growth rate of not less than 5 per cent a year in agriculture and its outlay will be between Rs 21,500 crore and Rs 22,500 crore. Two-thirds of it will be in the public sector.

This was decided by the National Development Council which held its 21st meeting in New Delhi on October 27 and 28, to discuss the objectives, priorities, programmes and magnitude of the Fourth Plan.

The highest priority will be given to agriculture, production of basic consumption goods and family planning.

The proposed size and pattern of investment are expected to give an overall rate of growth of around 6.5 per cent. (The calculations have been made at 1963-64 price levels.)

The Prime Minister and Chairman of the Planning Commission, Mr Lal Bahadur Shastri, told the Council that the sluggishness in our growth called for redoubling of our efforts. The high prices and shortages as well as the feeling of frustration were themselves the result of slow progress.

Apart from doing everything to step up agricultural production, Mr Shastri emphasised the need to start production of consumer goods in the public sector. The Government, he said, should set up textile mills, sugar factories and plants for the making of cement, drugs and medicines. Only then could shortages be removed.

#### HEAVY INDUSTRIES : BACKBONE

*As for heavy industries, the Prime Minister declared that they would*

*"continue to be the backbone of our economic development". Steel and machinery, he said, must be produced in larger quantities.*

Mr Shastri also said that after careful thought he had come to the conclusion that there was no alternative to strict controls and rationing. Food, he declared, was a matter of life and death for the people. He disclosed that an ordinance would soon be promulgated to deal with hoarders and profiteers.

#### NEW PLANNING COUNCIL

The Prime Minister also announced that to associate more experts with the drawing up of the Fourth Plan, an *ad hoc* body of scientists, engineers, economists and other experts would be constituted which would help the Planning Commission on a part-time basis. To be called the National Planning Council, it would consist of 15 to 20 people. The Deputy Chairman of the Planning Commission would head it.

#### FIVE SUB-COMMITTEES

The National Development Council named five sub-committees, consisting of Chief Ministers and other Ministers of States, to deal with: (1) Resources; (2) Agriculture and Irrigation; (3) Industries, Power and Transport; (4) Social Services; and (5) Hill Areas. The Social Services group would also deal with employment and manpower and family planning.

The Prime Minister said that these committees were not intended to make allocations but were in the nature of study teams composed of people with practical experience. (The Prime Minister's opening address has been given on pages 25-27 and the concluding remarks are given at the end of this report.)

#### BIG PUSH NEEDED

Mr Asoka Mehta, Deputy Chairman of the Planning Commission, said that the Fourth Plan in size equalled the size of the earlier three Plans. "We are inviting the nation to launch upon a big Plan because a big Plan is necessary. In the next 18 months we have to create a situation which will enable and entitle us to embark on this big achievement," he said.

#### 4,100 CRORE FOR FARMING

The Plan, Mr Mehta explained, had been so conceived that the present needs of the people would be met to the maximum extent possible. The highest attention was being given to agriculture, with an outlay of more than 4,000 crore. In the same way, adequate provision had been made for expansion of consumer goods and social services.

#### FOREIGN EXCHANGE

Mr Mehta pointed out that even if this big Plan was put through successfully, the nation would not reach its objectives by 1975 either in employment, or in raising the level of living or in achieving self-sustaining growth or even in providing enough food.

As regards foreign exchange, Mr Mehta said that the Plan had assumed

# Need to Raise Larger Resources

the same quantity of foreign assistance as in the Third, although the size of the Plan itself would be doubled. It was essential therefore that internal resources must be much larger. There was a gap of Rs 2,500 to 3,000 crore between the resources in sight and the proposed outlay in the public sector.

*This gap, Mr Mehta said, was not going to be filled, as in the past, by foreign assistance. There could also be no deficit financing in the next Plan. Care has also to be taken that both in drawing up and in implementation, inflationary potential was not released. Stress was therefore being laid on schemes which would produce goods that most of the people needed. Thus the whole question of financial discipline, administrative discipline and social discipline became crucial to the Plan. With dynamism the task was certainly not impossible.*

## FINANCIAL DISCIPLINE

The financial discipline needed would be that non-Plan development expenditure should not go up beyond 3½ per cent per year and the general administrative expenditure beyond 5 per cent. Mr Mehta stressed the need to increase earnings from public enterprises. He appealed to Chief Ministers to consider the next budget as a useful opportunity to raise more resources.

## CENTRE—STATES CO-OPERATION

The Finance Minister, Mr T.T. Krishnamachari, said that the objects outlined for 1975 could not be reached unless the growth potential was between 6 and 7 per cent and this could not be achieved with the originally estimated resources of Rs 18,000 crore plus Rs 2,500 crore for current outlay.

Mr Krishnamachari referred to the imponderables such as higher collections of taxes and small savings and repayment of principal and interest on foreign borrowings.

Calling for greater co-operation between Centre and States in raising resources, the Finance Minister referred to Central contribution to State finances. He said it was 30

per cent in the First Plan, 50 per cent in the Second Plan and 65 to 80 per cent in the Third. States which had promised to raise resources could not do so. This entire question needed examination. It would be good if the Centre took up some major schemes in power, transport, and even industries as its direct responsibility.

## SINGLE INCOME-TAX

One of his suggestions in regard to enlarging resources was to have a single income-tax covering both agricultural and non-agricultural income. Mr Krishnamachari said he would frequently visit the States in order to facilitate discussions. "I suggest that the Planning Commission should be put under wheel for some part of the year and should go to you and meet your officials," he said.

## SOCIAL OVERHEADS VITAL

Referring to the criticism that had been made by some Chief Ministers earlier that social services had been allotted too large funds, Mr Krishnamachari cautioned the Council against indifference to social overheads.

Ten Chief Ministers spoke on the first day of the meeting. The second day's session was addressed by Mr Gulzarilal Nanda, Union Home Minister, Mr C. Subramaniam, Union Food and Agriculture Minister, Mr Shriman Narayan, Member of the Planning Commission, Mr V.V. Giri, Governor of Kerala (where there is President's Rule), and six Chief Ministers.

## ROLE OF ADMINISTRATION

Mr Nanda stressed the crucial role of administrative efficiency in planned development. Through better administration it would be possible to add 1 per cent to the growth rate with the same outlay and a rise from 4 to 5 per cent would make all the difference.

As the size of plans increased, Mr Nanda pointed out, it was not enough if there was an expansion of personnel; there had to be an improvement in quality. Even the ele-

ment of supervision that was there had now gone.

*"From one Plan to another we know what to do in administration. But we don't do it. Ideas are not implemented. Some drill has to be prescribed right down the line. There must be much more ruthlessness than is seen around," he said.*

Mr. Nanda referred to the importance of co-ordination, area planning and keeping down costs of administration. *He announced that a high-powered commission for administrative improvement was being set up.*

## SCIENTIFIC AGRICULTURE

Speaking on the agricultural programme, Mr Subramaniam said: "It has been asked whether we can achieve the 5 per cent annual growth in agriculture; I say positively yes."

This could be done not with the traditional approach of demanding new facilities, but by taking the results of science to the farm.

Outstanding work had been done at Pusa and elsewhere on every crop. It had been shown that a little varietal changes in the crop would lead to a big increase in yields. If the researches already done by our scientists were taken to the farmer, we would be able to achieve more than 5 per cent increase every year.

## TEACHING PEASANTS

*The approach that our ryots know everything must go, Mr Subramaniam declared. "The farmer doesn't know everything. We have to make him learn. And if we have to tell him, we should have to learn first."*

The five main points of the new approach to grain production, according to Mr Subramaniam, were:

1. First-class seed stock should be available. Our seed farms are not producing seed of such quality.

2. More fertiliser should be used, as fertiliser alone can give us results within the next four to five years. And as fertilisers are becoming a scarce commodity in the world market, a year-by-year plan should be drawn up immediately for its imports.

# A Modern Approach to Farming

3. Plant protection measures should be taken up on an area approach with the district or block as the unit.

4. Irrigation potential already created must be fully utilised. At present irrigation is not agriculture-oriented but PWD-oriented. The irrigation regulations, which are of the eighteenth and nineteenth centuries, must be changed.

5. Soil studies should be expanded so that the entire programme will be built on the basis of the first rule of farming: "Know your soil."

It was not through new inputs alone but through new techniques that the challenge could be met, Mr Subramaniam said. The scientists had shown what was possible. This should percolate to the men in the field, starting from the very top.

## MINOR IRRIGATION

Mr. Shriman Narayan said that detailed agricultural targets would be drawn up after discussions with States. In regard to minor irrigation, he said that the impression that only Rs. 450 crore were allotted for it was wrong. The sum was Rs 640 crore, taking into consideration the allocations under Community Development and Co-operation. The Programme Evaluation Organisation had found that 30 to 40 per cent of the funds advanced for minor irrigation had been used for other purposes and that one-fifth of the wells in existence were out of use.

Mr Shriman Narayan referred to the Agricultural Credit Stabilisation Fund being set up by the Reserve Bank of India to help farmers to meet their liabilities.

He stressed the need for ground-water survey and pointed out that State laws had been coming in the way of effective checking of plant diseases.

## STATES & INDUSTRIES

Other points made in the meeting were:

*Mr. V.P. Naik, Chief Minister of Maharashtra:* State Governments should be given larger role in the development of industries. Each State should also be given a lump sum

## HIS VISION TO GUIDE US

At the NDC, Mr Lal Bahadur Shastri made a feeling reference to the late Prime Minister. He said:

This is the first meeting of the Council which will not have the guidance of Jawaharlalji. It was his vision that led to the introduction of planning in India and it was his example and advice that inspired many other developing countries.... He is no longer with us. But the objectives which he had set before the country are there to guide us.

quota of foreign exchange so as to curtail disproportionate delays in key projects. Plant protection must be treated as a service and provided by the State... The emphasis on land reforms should change... Instead of insisting on new reforms we must implement more effectively the reforms already passed.

*Mr Balwantrai Mehta, Chief Minister of Gujarat:* The principle of Central assistance for State plans should undergo a thorough review.

## MORE FOR INDUSTRY-TRANSPORT

*Mr. M. Bhaktavatsalam, Chief Minister of Madras:* The agricultural targets in the Memorandum are not excessive. The emphasis on quick-maturing projects should not mean neglect of projects which may take longer time to give results. The allocation for industry, power and transport is too small. Central assistance should be on easier terms. The impression that the States are semi-agents of the Central Government without much freedom of action should change.

*Mr M.L. Sukhadia, Rajasthan:* States should have greater freedom in deciding about projects and it should not be necessary for them to go to the Centre for clearance of every project. Reduction of regional disparity should be given more importance in Plan formulation.

*Mr Biren Mitra, Chief Minister of Orissa:* Possibilities of raising

new resources in the State sector should be studied carefully.

*Mrs Sucheta Kripalani, Chief Minister of U.P.:* The minimum benefit for each region and section of the population should be defined in each Plan. Only then can we generate enthusiasm in the people. Social services other than family planning should have a lower priority.

*Mr Brahmananda Reddy, Chief Minister of Andhra Pradesh:* What is Central assistance? It is merely a loan... There must be more decentralisation and a small sum of foreign exchange should be allotted to each State to be spent at its discretion. We are paying too much to foreigners as consultation fees... Each State should set up a factory to make power-tillers.

*Mr K.B. Sahay, Chief Minister of Bihar:* All irrigation needn't be pucca irrigation. We must lessen the dependence on cement construction and revive the earthen irrigation works.

## MORE FERTILISERS

*Mr P.C. Sen, Chief Minister of West Bengal:* My State has over-fulfilled the Third Plan targets of taxation. Import more fertiliser, you will be able to reduce the import of grain.

*Mr. S. Nijalingappa, Chief Minister of Mysore:* The common man does not feel the Plan has improved his lot. Provision of water, power and approach roads to villages should be given highest priority.

*Mr B.P. Chaliha, Chief Minister of Assam:* The failure in agriculture, land reform and co-operation is due to lack of basic organisation. Special measures must be taken to induce private investors to move into the backward areas.

*Mr V.V. Giri, Governor of Kerala:* Kerala is an example of over-development in education and underdevelopment in industry and employment... The food resources of the sea are being neglected. By spending Rs 60 crore, Kerala, which has a coast of only 350 miles, can feed its people and also earn Rs 25 crore of exchange annually.

# ORDINANCE AGAINST PROFITEERS

The Prime Minister, in his concluding address, said that more meetings of the N.D.C. would be had to fill in the details of the Fourth Plan.

Agriculture, he said, has and must continue to have the highest priority and importance.

*"Food comes first. Food is a matter of life and death for our people. To my mind there is no way out except to go in for control and rationing. If we want to avert a crisis, we must make our utmost to make procurement and distribution a success," he declared.*

Mr Shastri pointed out that procurement had to be undertaken even if there was going to be no rationing. He wanted fair price shops to be run effectively.

## FIRM ACTION

*"There is a general feeling," he added, "that we say things and not act upon it. The time has come for action; we must deal firmly with the profiteers. If we have to act, we must have enough powers." He said that an ordinance was being prepared to deal with hoarders and profiteers.*

## SWADESHI SPIRIT

On the approach to agriculture outlined by the Minister for Food and Agriculture, the Prime Minister said:

"I surrender to the views of Mr Subramaniam. If fertilisers will raise production, I am for fertilisers. I'll leave it to the Food Minister and Finance Minister to find the money for imports.

"Even fertilisers take some time to show results. But we can even today make better use of what we already have. I accept Mr Subramaniam's scientific approach *in toto*. But I add something *plus* to that. I want the swadeshi spirit to be revived. I believe in fighting with whatever means we have. My approach is that of the 1920's when Gandhiji started the satyagraha movement.

"Thirty years hence let us have everything modern, even machines that will bring food to our very mouths. But in the next ten or fifteen years we have no hope unless we revive the swadeshi spirit and make full use of the resources which are readily available in our country—

## Controls Vital, Says P.M.

side—manpower, green manure, compost, wells and ponds etc."

The Prime Minister deprecated the tendencies for adding to numbers. "I would rather have 20 good hospitals in a district than 200 without medicines, compounders and doctors", he said. He also deplored the craze for starting new universities.

## NEED FOR UNITY

Pleading for complete understanding between the Centre and the States, Mr. Shastri asked State Chief Ministers not to make public statements criticising the Centre. He also urged that States should settle interstate disputes amicably and to abide by arbitration awards.

The Prime Minister said in conclusion, "In our fast changing world, we cannot afford to relax. We must remain united and show the world we are fully integrated. If the National Development Council, which is the highest body in these matters, gives the proper lead, the country is sure to follow it."

## OFFICIAL STATEMENT

The following statement was issued at the end of the meetings:

The National Development Council, at its twenty-first meeting held in New Delhi on October 27-28, agreed with the long-term objectives indicated in the Memorandum on the Fourth Five-Year Plan, prepared by the Planning Commission. These objectives briefly are : (i) to lay a sound foundation for self-sustaining economic growth; (ii) to provide avenues and opportunities of employment to all those who seek it; (iii) to narrow economic and social disabilities; and (iv) to ensure a minimum standard of living.

It was noted that the shortfalls in the Third Plan and the consequent rise in prices had made the achievement of these objectives more difficult; nonetheless, they remained as compulsive as ever and had to be accomplished. The rate of growth in the Fourth Plan had accordingly to be higher than was assumed for the Third Plan in order to make up the leeway and to improve the per capita income, despite the rise in population. The aims of the Fourth Plan were: (i) achieving a rate of growth of not less than 5 per cent per annum in agriculture, and an overall rate of growth of not less than 6 per cent; (ii)

ensuring the availability of inputs for agriculture such as fertilisers, manures, pesticides and improved seeds, and the materials needed by agriculture, such as cement for wells and other construction purposes, iron and steel for implements, and equipment and cheap power for lift irrigation and agro-industries; (iii) enlarging the supply of essential consumer goods, such as cotton-textiles, sugar, kerosene, cement, drugs and medicines; (iv) providing for continued growth in metals and mining, chemicals, machine-building, electric power and transport; (v) raising productivity through the development of human resources; (vi) controlling the growth of population through an extensive family planning programme; and (vii) generating adequate opportunities for employment of the new entrants to the labour force, including those seasonally under-employed.

## OUTLAY FOR PLAN

The Council accepted the size of the Plan as proposed in the Memorandum. The total outlay in the Fourth Plan ranged between Rs 21,500 and Rs 22,500 crore and the outlay in the public sector between Rs 14,500 and Rs 15,500 crore. The development programmes in each sector will identify projects with a total outlay of Rs 1,000 crore to be initiated during the second half of the Plan if the economy improves and resources can be mobilised.

All possible steps should, however, be taken to accelerate progress in the early years of the Fourth Plan in order to make the mobilisation of the additional resources possible. The appropriate advance action programmes were preparation of detailed project reports, careful selection of quick-yielding schemes, completion of administrative arrangements by starting training programmes and placing the trained staff in position.

The Council appreciated the immensity of task of raising the order of resources required for the Plan and discussed generally the measures for fulfilment of the task. It was decided that the matter would require detailed consideration of a high-level committee.

## SECTORAL ALLOCATIONS

The Council also discussed the sectoral allocations and priorities indicated in the Memorandum, including the need for special programmes for backward areas, vulnerable sections of the community and the provision of basic rural amenities, such as drinking water, village approach roads and schools.

The Council agreed that top priority should be given to agriculture and a concerted programme for family planning started immediately on as extensive a scale as possible. The Council felt that, whereas there had been a substantial increase in agriculture and in social services, the provisions in the Memorandum for power, major irrigation, transport and industries had not been stepped up adequately.

The Council was of the view that the sectoral allocations and priorities needed to be re-examined in the light of the immediate needs of stepping up productivity.

#### AGRICULTURAL PROGRAMME

The Council agreed that agricultural development should be given the highest priority in the Fourth Plan and a rate of growth of not less than 5 per cent per annum should be achieved.

The financial allocation indicated in the Memorandum on the Fourth Plan, it was agreed, should be treated as tentative. The physical targets to be achieved in agriculture should be built up from below, through detailed work in the States, on the basis of the block and district plans and their implication in terms of financial resources and material inputs worked out in detail, and provision made in full before providing for other sectors. Some of the items, which were highlighted, are the adoption of a project approach for planning and implementation of agricultural programmes area by area, in a selective and integrated manner; emphasis on quick-maturing schemes; development of local manurial resources side by side with the use of fertilisers, pesticides etc.; use of improved agricultural implements; extension of rural electrification for water lifting; early completion of soil surveys throughout the country; planning and implementation of minor irrigation programmes on the basis of systematic surveys of water resources; undertaking of plant protection measures as a service over large areas simultaneously at the appropriate time; provision of improved seeds on a large scale; development of animal husbandry; poultry; piggery and fisheries; timely and adequate irrigation facilities; and, above all, improvement in the quality of service and effective co-ordination of all agencies, institutions and departments concerned with interrelated and interdependent aspects of agricultural production.

#### FURTHER STUDIES

The Council decided to set up Sub-Committees for Agriculture and Irrigation; Industries, Power and Transport; Social Services; Resources; and Hill Areas. These Sub-Committees would also look into the needs of the backward areas and the provision of basic amenities. The composition of the Sub-Committees is as follows:

Committee on Resources : Mrs Sucheta Kripalani, Chief Minister, Uttar Pradesh; Mr M. Bhaktavatsalam, Chief Minister, Madras; Mr P. C. Sen, Chief Minister, West Bengal; Mr Mohan Lal Sukhadia, Chief Minister, Rajasthan; Mr Fakhruddin Ali Ahmed, Finance Minister, Assam; and Mr S.K. Wankhede, Finance Minister, Maharashtra.

Committee on Industries, Power & Transport : Mr D. P. Mishra, Chief Minister, Madhya Pradesh; Mr Balwantrao Mehta, Chief Minister, Gujarat; Mr Ram Kishan, Chief Minister, Punjab; Mr G.M. Sadiq, Prime Minister, Jammu & Kashmir; Mr R. Venkataraman, Industries Minister, Madras; Mr S. G. Barve, Industries & Electricity Minister, Maharashtra; Mr Veerendra Patel, Public Works Minister, Mysore; Mr K.P. Tripathy, Planning Minister, Assam; Mr Salla Kumar Mukherjee, Finance Minister, West Bengal; Mr Giridhari Lal, Irrigation & Power Minister, Uttar Pradesh; Mr M.P. Sinha, Irrigation & Power Minister, Bihar.

Committee on Social Services : Mr M. Bhaktavatsalam, Chief Minister, Madras; Mr G.M. Sadiq, Prime Minister, Jammu & Kashmir; Mr Mathuradas Mathur, Planning Minister, Rajasthan; Mr Rabindra Lal Sinha, Education Minister, West Bengal; Mr Hitendrabhai K. Desai, Home Minister, Gujarat; Mrs Yashodhara Dasappa, Social Welfare Minister, Mysore; and Mr Satyendra Narain Singh, Education Minister, Bihar.

Committee on Agriculture and Irrigation : Mr V. P. Naik, Chief Minister, Maharashtra; Mr G. Narayana Gouda, Agriculture Minister, Mysore; Mr Darbara Singh, Home & Development Minister, Punjab; Mr S. N. Sinha, Agriculture Minister, Bihar; and Mr Arjun Singh, Agriculture Minister, Madhya Pradesh.

Committee on Hill Areas: Mr P. Shilu Ao, Chief Minister, Nagaland; Dr. Y.S. Parmar, Chief Minister, Himachal Pradesh; Mr Koireng Singh, Chief Minister, Manipur; Mr S.L. Singh, Chief Minister, Tripura; and Mr G.L. Dogra, Finance Minister, Jammu & Kashmir.

#### ASSISTANCE PATTERN

The Council stressed the need for improving the administrative and technical organisations responsible for Plan implementation. There was urgent need for a systematic analysis of the reasons for failures in past Plans and the qualitative changes needed in administration to meet the demands of a bigger Fourth Plan.

The questions relating to the pattern of assistance for States and of certain types of projects being earmarked for full Central assistance were also generally discussed. It was agreed that these would be discussed in a special meeting of the National Development Council, to be convened at an early date.

In his concluding remarks, the Prime Minister laid special emphasis on raising agricultural production and utilisation of agricultural resources to the fullest extent for this purpose. The Prime Minister also emphasised the need for improvement of qualitative aspects of existing services in the fields of education and health.

The Prime Minister further indicated that the size of each State Plan should not be unduly large and should bear proportion to the total outlay.

## SUMMARY OF MEMORANDUM

(Continued from Page 2)

people will ask for jobs, having come of working age. The Fourth Plan will thus have to find jobs for 35 millions but the programmes now possible would create only 23 million jobs, leaving a large backlog.

#### PRICES :

In order to ensure the stability of prices of basic consumer goods a variety of fiscal, monetary and administrative steps will be needed such as restraint on inessential outlays, cost reduction, choice of quickmaturing projects, increase in supplies of consumption goods, state control on distribution, increase in rate of savings, reduction in income and consumption disparities and strengthening of administrative machinery.

Other major objectives are to provide basic amenities to the rural population and special benefits to the backward areas and

## NDC Asides

At this rate there will be only one tax left for the States to levy—the poll tax.

—Mr Brahmananda Reddy

The impression is that there is enough money and that the problem is of spending it.

—Mr K.B. Sahay

The trouble is that the country as a whole doesn't yet believe in non-vegetarianism.

—Dr Y. S. Parmar

If Himachal Pradesh has to have railways, a gauge smaller than the narrow gauge might be needed.

—The Prime Minister

Public discontent arises not because the bigger things aren't done but because the smaller things aren't done.

—Mr Nanda

The first priority must go to agriculture not in our speeches but in action.

—Mr Subramaniam

Traditional farming will not do. The bullock-cart can be speeded up from nine to ten miles at best. If greater speed is needed we have to go in for a horse or a car.

—Mr Subramaniam

There have been autocrats and aristocrats, and now there are technocrats.

—The Prime Minister

Family planning is a favourite subject with those who have grey hair.

—The Prime Minister

to intensify the family planning programme.

The total allocation for water supply and sanitation will be Rs 240 crore—one and a half times the expenditure on it in the first three plans put together. A big portion of this will be for rural water supply. On family planning it is proposed to spend Rs 95 crore (compared to the Third Plan allocation of Rs 27 crore).

The Fourth Plan Memorandum consists of eight chapters : I Objectives and Strategy, II Size and Pattern of Investment, III Financial Resources for the Plan, IV Employment, V Programmes of Development, VI Some Aspects of Development, VII Administration and Plan Implementation, and VIII concluding observations. The fifth chapter is subdivided into several sections outlining the proposals under the different heads of development.

FROM EAST OF INDIA TO FAR EAST

# IRON FOR JAPAN

Kiriburu Project at Work



A miner of Kiriburu uses his jackhammer to drill a big boulder of ore. Photograph at right shows a section of the ore face

# SOME OF THE FINEST ORE IN THE WORLD

**T**HERE is a hill in Bihar which is named after the Mahatma. They call it *Gandhiburu*. Close to Gandhiburu is another called *Kiriburu*. And there are others: *Meghahatuburu*, *Lotuburu* and *Budhaburu*. The Adivasis of this region, the Mundas and the Hos, who have lived on these hills for generations, have given a name to every peak in this chain of hills called the Bonai range. But the name Gandhiburu was not given by the Adivasis but by a team of geologists of the Indian Bureau of Mines who were surveying the area six years ago. Finding a peak without a name, they called it for Mahatma.

The Bonai range extends across the States of Bihar and Orissa. Kiriburu lies roughly to the south-east of Rourkela. It is estimated to contain great quantities of iron ore. Iron ore is also found in many other parts of our country, in Assam, Bengal, Maharashtra, Madhya Pradesh, Himachal Pradesh, Andhra Pradesh, Kashmir, Gujarat, Madras, Mysore, the Punjab and Rajasthan. The estimated reserves in the country add up to roughly 22,000 million tonnes, nearly a quarter of the world's estimated reserves. This makes India the No. 1 country in regard to iron ore.

Do we need all this ore? As our industries grow we are certainly going to need much more than the eight to nine million tonnes which is approximately our present demand. A very modest offtake compared to the resources. But there are many countries with a steel-hunger. Until we begin consuming more iron ourselves we can part with a portion of the wealth and earn exchange. Japan is one of the nations which are ready to help us to convert iron into gold.

The Government has decided to encourage and organise the export of iron ore from India on a big scale. Many private mine owners, of course, have been exporting ore for a long time. But their exports

**Yojana  
Staff  
Feature**

Report and Pictures

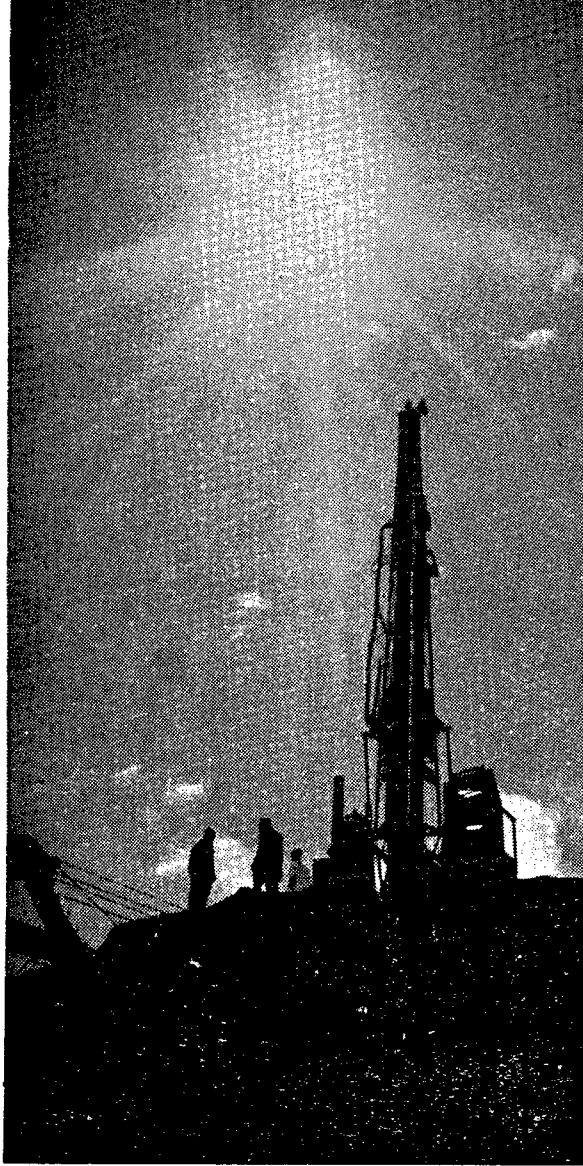
by T. S. NAGARAJAN

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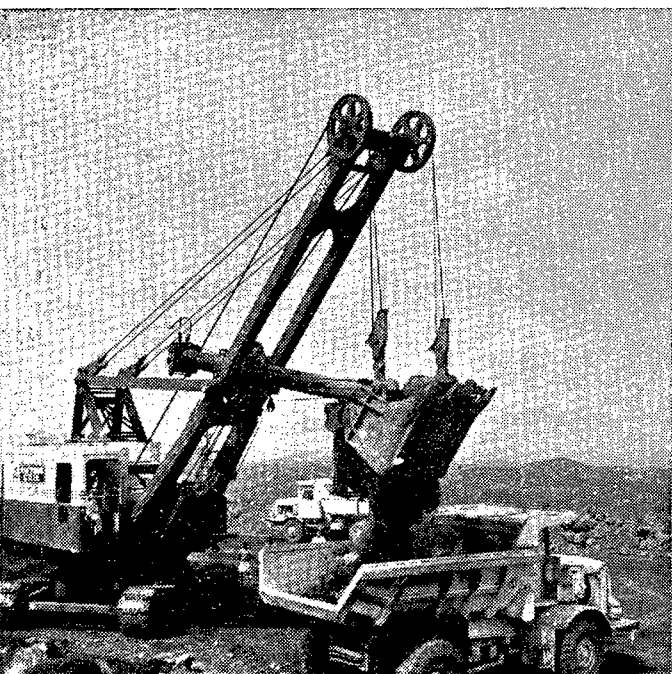
formal inauguration

of project on November 12





Above : Drilling at Kiriburu to blast iron-bearing rock  
Below : Shovel loads ore on to dumper



were confined to small quantities because of their meagre resources. They employed manual labour to dig out the ore from the hills and made use of all available modes of transport to carry it to the ports. Even today, except for a few mechanised mines here and there, most of our iron ore production is done by age-old methods.

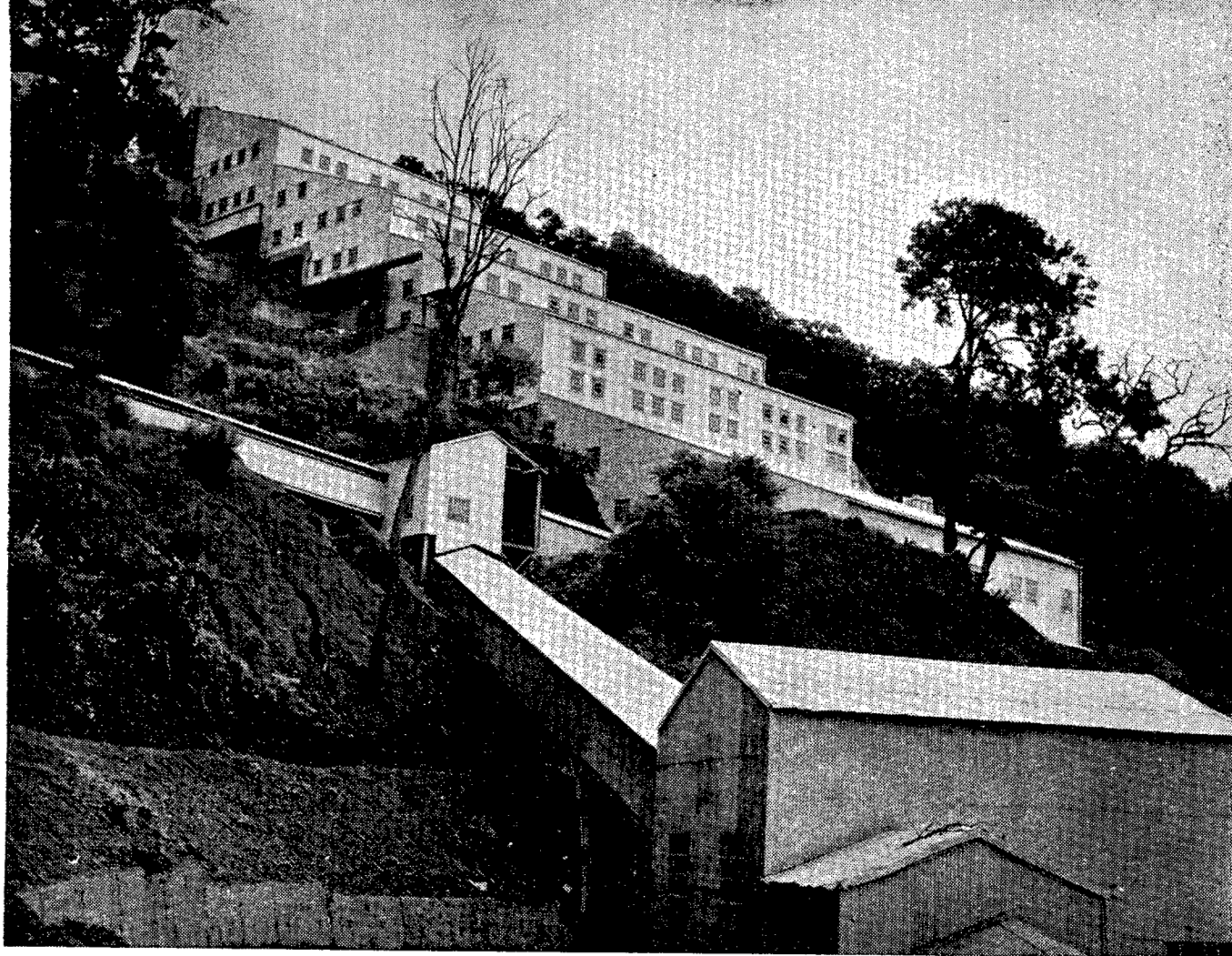
## NMDC's First Job

The price of one tonne of iron ore might vary anywhere between Rs 30 and Rs 50 at the point of shipment. The lesser the iron content in the ore, the cheaper the price. It is well to remember that there is tough competition among sellers in the international market where countries like Malaya, the Philippines, Spain, Morocco, Brazil, Sweden, Venezuela, Algeria, Turkey and Australia compete with India, sometimes at lower rates. This means that if we want to sell our ore, we should go about it in a big and efficient way. The National Mineral Development Corporation (NMDC), set up six years ago to exploit the mineral resources of the country, was given the job of developing our iron mines along modern methods of production. The Minerals and Metals Trading Corporation was entrusted with the job of selling it.

The Kiriburu area in the Bonai range was the first site which the NMDC undertook for exploitation. In fact, the Kiriburu project was the Corporation's first major job to meet the big demand from the Japanese steel industry for Indian iron ore. A Japanese steel mission came to India in 1958. They went round the country and decided on the Kiriburu area for their requirements of iron ore. An Indian negotiating committee and the Japanese steel mission came to an agreement by which India undertook to export 2 million tonnes of ore a year starting from this year.

The agreement on its face was a big boost to our iron ore industry. But to unearth 2 million tonnes of ore per year from a thoroughly undeveloped area like Kiriburu and reach it to the ships at the harbour at Visakhapatnam, 770 kilometres away, was not a simple job. It meant the development of the entire Kiriburu area into a modern mining town. A big sum of money (a good portion in foreign exchange) was needed to buy the machinery. The forest had to be cleared to make roads to move all the equipment that would dig the ore out of the hills, crush and transport it to Visakhapatnam. The port itself had to be developed to make it fit to handle the huge loading operation. In the shipping world, ore carriers are huge bottoms!

The Government kept all these factors in view and gave the Kiriburu project a multi-purpose look. Though Kiriburu's nearest railhead, Karampada, is only eight kilometres away, the line had to be linked up by laying a new track of forty kilometres with a place called Bimlagarh. Another rail link beyond Bimlagarh between Sambalpur and Titlagarh (178 kilometres) was also necessary. These new lines of communication, in addition to serving Kiriburu's needs, would provide an adequate outlet for the growing trade of the hinterland.



The gleaming exterior of the crushing plant on hill slope. Below : Ore leaves plant by conveyor belt

According to the agreement the Government of India was to provide the rupee finance, while the Government of Japan a credit in yen of \$ 8 million. The International Co-operation Administration (ICA), an agency of the Government of the United States of America, was to supplement this by a credit of \$ 20 million from the Asian Economic Development Fund. In January 1959, the Government named the Japan Consulting Institute as our consultants for this project.

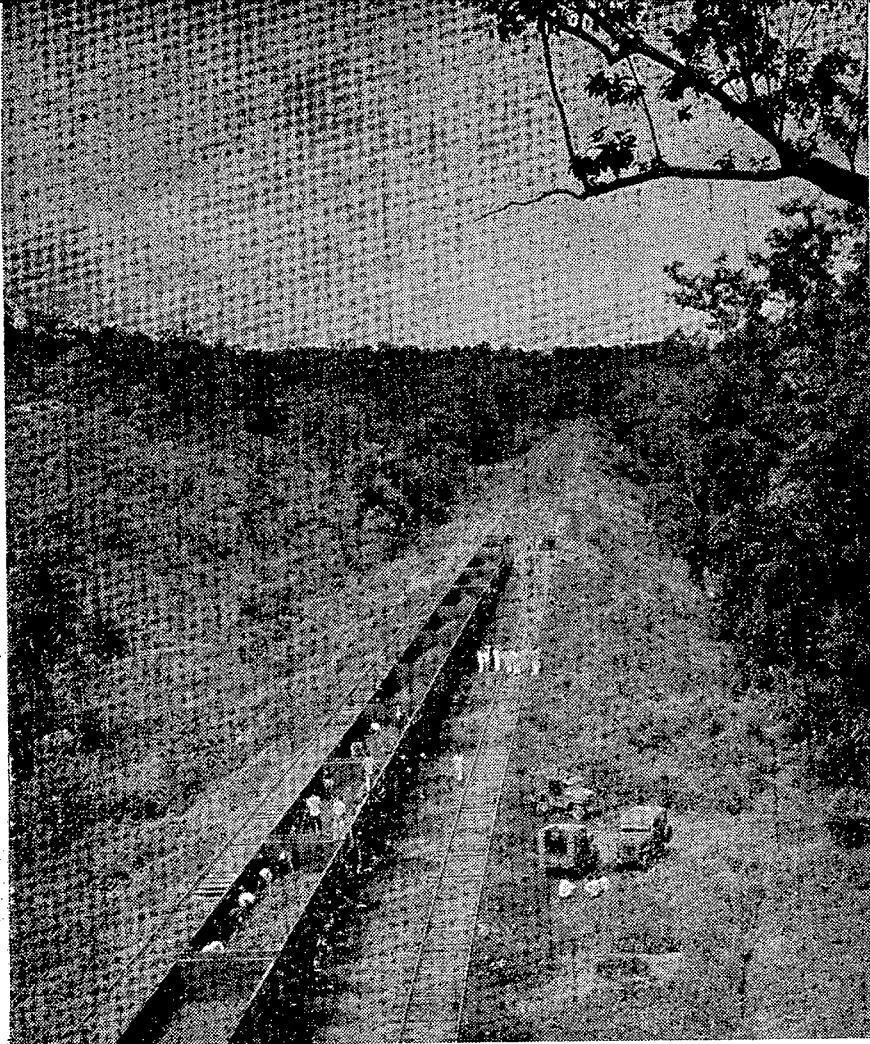
## Adivasi Country

I WENT to Kiriburu last month. To get there one needs to do some tough journeying. You can get to Rourkela either by air or rail and do a 65-kilometre jeep journey through a dense forest full of towering *sal* trees. They are so tall, nearly 30 metres in some places, that it

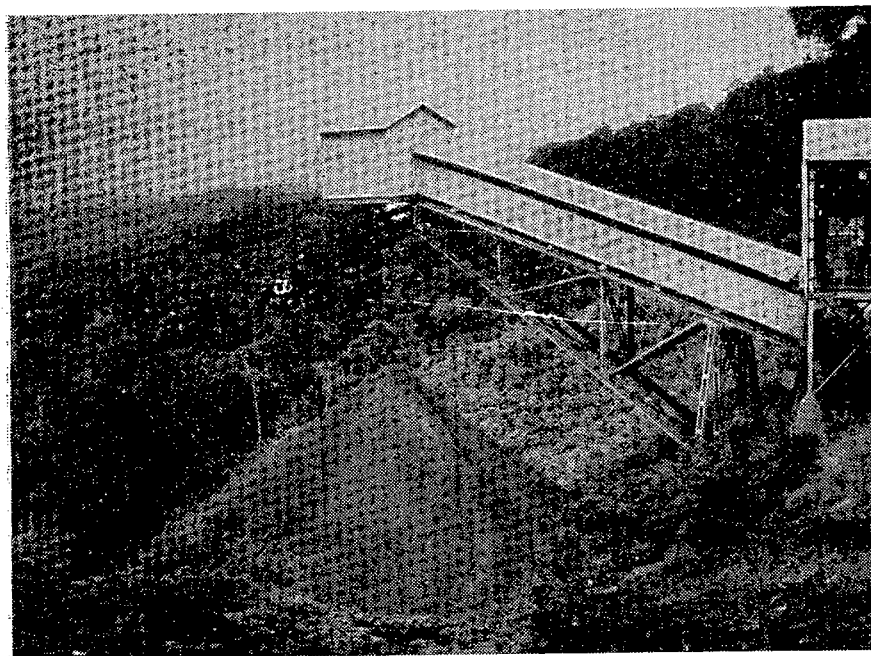


becomes difficult to see them fully. The other route is through the city of Jamshedpur. The Kiriburu project is a 210-kilometre by road from here. There is also a railway towards Kiriburu from Jamshedpur which terminates at a point called Barajamda, 26 kilometres short of the project.

I took the road from the steel city. This is a busy highway. Now and then heavy trucks carrying finished steel passed us. Rarely was a bullock-cart to be seen on the road. On either side was a stretch of lush paddy, giving the area a prosperous look. After motoring a 160-kilometres, we reached Barbil, one of the most famous mining towns of the area. Barbil has one big street full of workshops where I saw people busy at lathes. Needless to say most of them were Sikhs ! Barbil has been the home of mine-owners who have been exporting iron ore for years. As evidence of their



The railway line that leads to Visakhapatnam, 770 kilometres away. Below: A mound of "fines" growing near crushing plant.



prosperity were big red patches showing their workings on the green hills beyond the town.

Barbil is the nearest big town for Kiriburu. From this point the road meanders up the Bonai range. On the way we passed a tiny hamlet with a surprising name—Horomoto. It is an Adivasi settlement. No one knows how Horomoto got its name. I asked a few. Everyone was sure that it was called Horomoto even before the Japanese consultants came to Kiriburu. Beyond Horomoto the road took on a reddish-brown colour. Even the mighty *sals*, I found, concealed their green leaves underneath a thick layer of iron-rich dust.

Barely five kilometres from the base of the hill is the river Karo. Karo brings some unpleasant memories to the old Kiriburu hands, those who set up the first base camp. The area was then far more inaccessible, being located in a jungle which was highly malarial. The first job was to clear the forest and make the road up the hill to move the machinery needed for the project. In rainy months (roughly 200 cms annually) the Karo swelled and cut them off from civilisation.

Every monsoon, the Karo in spate pulled down the bridge they built across. Added to the wiles of water and mosquitoes were the harassment of wild animals—elephants, tigers and bison. A major part of the Kiriburu area is even today a reserved forest called the Saranda Sanctuary. There is a small natural lake on the hill in the centre of the present township which was said to be the main source of water for the animals in the sanctuary. The engineers' problems did not end there. No one came forward to take up the civil jobs. Building materials like sand and bricks had to be transported over a distance of eighty kilometres. It took two years for the engineers merely to lay the road to the hill top (where the mining had to begin first) and build the township.

In the process the highly backward Adivasis of the region got a job to do. Their daily wages, which were as low as 50 paise before the Kiriburu engineers reached there, rose to Rs 2.50. I talked to a few Horomoto villagers on my way up the hill. They were ploughing the land next to their huts. Asked what the project

had done to them one of them said: "It used to be our custom to send the women out to work and for the men to stay back home. Now the times have changed. All of us have work. And I am rich enough to keep my wife back home." During the initial stages nearly 70 per cent of the total working strength consisted of the local Adivasi population.

## 63 Per Cent Iron

ON top of the hill, what strikes the visitor's eye first is the neatly laidout township of 600 houses. The houses looked as though they had just been given a coat of paint. In fact the project personnel had moved into them only a few weeks back. On my way up, I had seen the old log-cabin-like structures in which they had lived all these years.

It was evening by the time I reached the township. Mr P.C. Gupta, the young Deputy Mines Manager of the project, who was with me, drove me straight to a point to the west of the township in order to show me a beautiful sunset which had lit up the Kiriburu horizon in bright red. This is perhaps the highest point on the hill, situated right on the 'bench' where mining is now in full swing. It was a breath-taking view. I could see the entire valley spread out a thousand metres below me. To my left in the panorama was a tiny cluster of buildings which vanished from sight now and again. It was the Karampada railhead, eight kilometres away. Mr Gupta pointed his finger somewhere towards my right and said: "There is Rourkela, 65 kilometres away as the crow flies." The winter mist that filled the valley came between us and the horizon. We could see nothing except the thick green carpet which covered the entire landscape.

The ore deposits of the Kiriburu project spread over an area of more than 2,800 hectares containing crude iron ore reserves of more than 300 million tonnes. Roughly a third of this is to the east of Kiriburu in Orissa and the rest is in Bihar. The geologists have divided the entire Kiriburu area for the sake of management into three parts: the North block (118 million tonnes) where mining is being done at present;

*(Continued on Page 28)*



Farmers of Horomoto turning at iron-rich red earth at the foot of the Kiriburu hill. Project jobs have induced many Adivasis to work, but a few continue to follow the plough.



Top : Children of the secondary school at the mining town

Below : Some of the 600 houses that have just been completed. The early Kiriburu hands had to spend years in wooden cabins



# NEFA IN THE THREE PLANS



Students in a classroom. Left : A Monpa child and mother

## Rapid Progress along Path Laid

By  
**L.B. THANGA**  
Development  
Commissioner  
NEFA

at the same time, affecting in any way the simplicity and self-reliance so characteristic of the NEFA people. In drawing up these plans, the NEFA Administration was guided by the five fundamental principles enunciated by Prime Minister Nehru. These are :

(i) People should develop along the lines of their own genius and we should avoid imposing anything on them. We should try to encourage in every way their own traditional arts and culture.

(ii) Tribal rights in land and forests should be respected.

(iii) We should try to train and

build up a team of their own people to do the work of administration and development. Some technical personnel from outside will, no doubt, be needed, especially in the beginning. But we should avoid introducing too many outsiders into tribal territory.

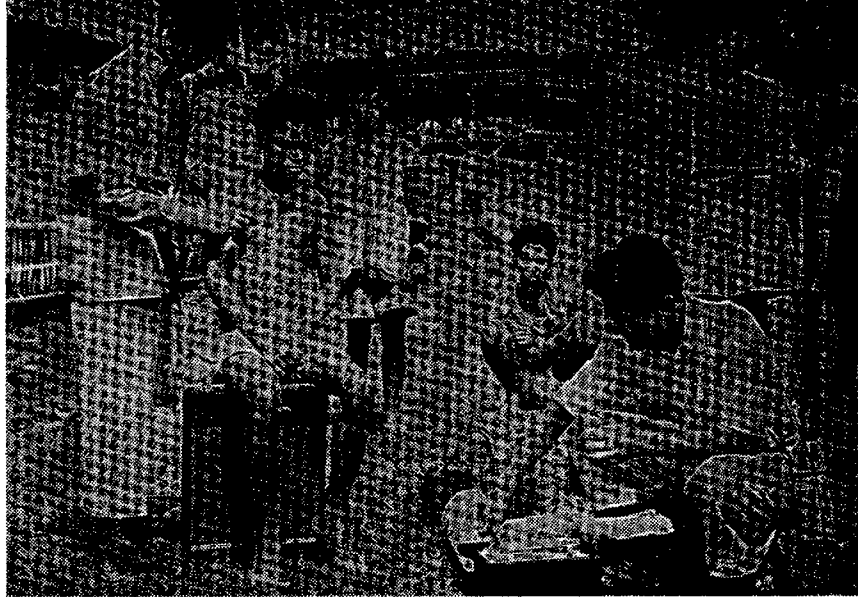
(iv) We should not over-administer these areas or overwhelm them with a multiplicity of schemes. We should rather work through, and not in rivalry to, their own social and cultural institutions.

(v) We should judge results, not by statistics or the amount of money spent, but by the quality of human character that is evolved.

**P**LANNING came to NEFA along with the rest of the country. The First, Second and Third Five Year Plans of NEFA aim at securing a higher standard of living for the tribal people by the provision of concrete material benefits without,

**T**HE physical targets in the successive Plans of NEFA were fixed within this framework. They also took into account the potentialities of calling forth the full co-operation of the people, and by utilising the potentials of each region for development.

The NEFA Administration has been encouraging the increasing association of traditional democratic institutions at the village and higher levels with the development programmes. It has also been giving impetus to the co-operative system on which the economy of the tribal people in NEFA is based. Wherever traditional democratic institutions, locally known as *kebangs* or *bangos*, do not already exist, the help and co-operation of other recognised forms of leadership in the villages, including that of the hereditary chiefs, are taken advantage of.



Mobile health teams visit tribal villages to give medical help to villagers. The picture shows a tribal patient being examined by a doctor. Below left: Tribal boys learning carpentry at a work centre.



aid and public health, forestry, cottage industries and co-operatives. In keeping with the objective of the all-India Plan, agriculture has been given an important place from the point of view of both financial and physical targets. Because of the geographical position of the Agency and the absence of communication, the development of communication shares the first priority with agriculture. The largest single item of expenditure in the successive Plans of NEFA has been that incurred on engineering projects like the build-

ing of roads and airstrips. It is only by having porter tracks, mule paths, jeepable roads and airstrips that it is feasible to move forward into the interior not only for the purpose of reaching the people at their door but also to bring the impact of development effectively. Linking of each village to a major road will also result in speedy economic improvement of the people.

**L**IKE other States, we are now formulating the outline of the Fourth Plan of NEFA. During this period, the tasks and priorities would generally remain the same as in the earlier Plan. In terms of money,

## own by Nehru

Liberal award of stipends to train local candidates to become school-teachers, doctors, engineers, agricultural experts and administrators is another step taken by the NEFA Administration in this regard. Through this process, not only is the difficulty of recruiting trained and qualified personnel from outside the region is being solved but the NEFA people derive a greater feeling of fulfilment.

### Plan Objectives

**T**HE First, Second and Third Plans of NEFA envisaged development in the fields of agriculture, communication, education, medical

Science students experimenting in a school laboratory



the size of the First Plan was Rs. 201.22 lakh and the Second Plan Rs 356.64 lakh. The anticipated total outlay for the Third Plan is Rs 720.94 lakh, which is more than double that of the Second Plan. During the Fourth Plan, we expect to more than double the total outlay of the Third Plan.

The entire economy of NEFA is dependent on agriculture. Agriculture will also be the predominant occupation of the people for a long time to come. The traditional methods of cultivation would soon reach their limit of productivity, if they have not already done so. Indiscriminate felling of trees and the practice of *jhuming* (nomadic cultivation) will also destroy forest wealth and impoverish soil fertility. In some areas, soil erosion and the need for afforestation have already been encountered. The only means of improving income, therefore, lies in the development and diversification of agricultural production. Agriculture here is referred to in its widest sense as including animal husbandry, fisheries, horticulture, minor irrigation and even rural

power. The redeeming feature in NEFA is the total absence of agricultural indebtedness and middlemen among the people.

#### Techno-Economic Survey

**F**ORTUNATELY, there is in NEFA no population problem and it will still be possible to provide gainful employment on land for all those who desire employment in agriculture. But special efforts have to be made in the Plan to provide suitable employment to the increasing numbers. For these people a number of measures are contemplated. Though not included in the original Third Plan, a techno-economic survey is now proposed to be carried out. This survey will be conducted as soon as the monsoon is over, and the survey will specially investigate the potentialities of developing medium-size industries. The opening of a polytechnic is another step in this direction. Through this measure, we would not only be fulfilling one of the fundamental principles laid down by the late Prime Minister in training and building up a team of their

own people to do the work of administration and development, but we also hope to overcome the chronic shortage of technical staff at least at the lower levels.

It is one of the objectives in the Third Plan to cover the entire Agency area by Community Development blocks. To pave the way for integrated approach towards the various developmental activities in the Agency, we have set up development committees at the Agency, divisional and block levels. The village councils, which are important features of tribal life, are being revitalised by giving them more powers in carrying out development works.

In indicating the nature of the development work in NEFA, I have tried to avoid as far as possible the dry statistics that accompany any discussion on planning. The problems of NEFA are peculiar, and they are a challenge to the entire country. In spite of her present stage of development, the difficulty of the terrain, and other adverse conditions, our Plans have to be ambitious. And with determination the difficulties can certainly be overcome.

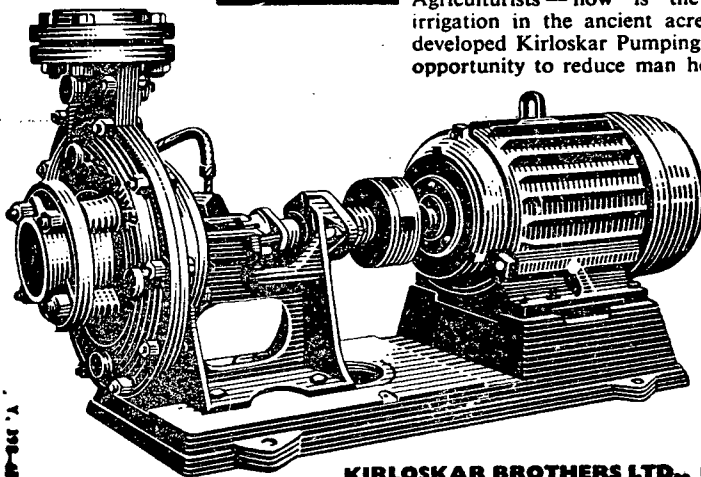
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# Dangerous Fall-Out

**L**ISTENING to what our people are saying about the atomic explosion in China, one is depressed.

Even the supposedly well-educated reveal great lack of knowledge of nuclear science. But that does not seem to deter them from asserting that we too should make the bomb.

It is good therefore that the Prime Minister has declared clearly that we will not make the bomb. This, in the month we are remembering Jawaharlal Nehru, is a heartening thing to hear.

The first of the arguments advanced by the pro-bombers is simple: If you can you must; and if you don't, it means you can't.

They forget that there are other nations who can make the bomb and have wisely decided not to—Canada, Sweden, Germany, Japan, to name only a few. They can afford the bomb, but have some sound reasons for the decision against. And it is not as though we are a threatened nation and they are not.

Argument no. 2 of the devil's advocates is that since it takes only a few lakhs of rupees to make a bomb why not make it?

The answer is simple: there are plenty of cheap things we can do, but choose not to.

Actually, it is fallacious to think that the bomb is so low-priced after all. To have the bomb isn't the end of the affair. If we intend using it, we must build up delivery systems. We have to go in for rocketry and missiles that leap the oceans. To imagine that a baby bomb by itself will guarantee defence is to think that just because we have salt we have the whole pickle.

Furthermore, in nothing does technology become obsolete so fast as in the nuclear business. The days of the fission bomb were long ago over: only the H-bomb gives you real membership of the nuclear club. But as Dr. H.J. Bhabha, who spoke of the temptations that the low price of bombs (Rs 17.5 lakh for a Hiroshima size bomb, and Rs. 30 lakh for a 2 megaton size) pose to nations,

has pointed, it is beyond our monetary means to build the equipment that will give us uranium-235.

It is naive to think that by having one or a dozen or even a hundred atom bombs we have an independent deterrent. The other man can always have more and challenge you to it. It is like the quarrel of little children each of whom claims that his dad is stronger than the other's.

So, once you make a beginning with the bomb, there's no end. To kill isn't enough; overkill is the word. In fact the atomic arsenal of the world is so over-full that, as Prof. Linus Pauling, the Nobel laureate in chemistry and in peace, has just pointed out, you can drop 12 one-ton nuclear block-busters on every acre of the earth's surface.

Prof. Pauling, who is a crusader for nuclear disarmament, and who, unlike most of us, doesn't have the advantage of ignorance, made a calculation a few months ago of the quantity of atomic war material the

SHAMBU by Malinda Topa



**IGNORAMAN**  
Wants to Know

*Instead of Rationing  
Rice, Why  
not Ration Children?*

world already possesses. He said that there was so much of atomic ammunition stockpiled that if a war of the total destructive power of the Second World War (a mere six megatons) was fought *every day* there was enough to last for 365 years!

Against such terrific might, what difference would our acquiring the bomb make? The guarantee of our safety is not in making our own poison but in promoting systems of international control by which no nation can misbehave.

The bomb will not add to our well-being. We cannot afford to make the misery of our poor people worse still. And those, who have this perverse admiration for China for having made the bomb, should ask the rulers of Peking: have you fed and clothed all your people that you should let loose this cloud of evil?

## Bad Record

It is not a happy thing to say in the year we have regained the Olympic hockey title and beaten the Australian cricketers—but a discreditable record of ours has just been announced. In 1963 we topped the nations in cholera.

Out of the 65,157 cases reported throughout the world, about 49,500 were from India.

One cholera case in three proves fatal.

## Collector's Item

On the back of a world tourist's wagon seen last month in Delhi:  
"Watch Mine, Not Hers"

# WE MUST TAKE SCIENCE TO FARMER'S DOOR

## Need for Incentives and Timely Supplies

K. A. P. STEVENSON

THE nation today faces the crucial problem of meeting the food requirements of our growing population. The escalation in food prices which so dominates the current scene has brought into sharp focus the deficiencies of our agricultural production programmes. It poses the challenge of finding new ways of increasing agricultural production and encourages us to make every effort to push forward the farmer's frontier.

The first step is to bring science to the door of the farmer. Our outmoded techniques have not been able to produce results and it is necessary, therefore, to examine the changes in methods that have to be introduced immediately.

We have placed too much reliance in the past on the input-output theory of production. The panacea for increasing agricultural production has hitherto been the provision of more and more inputs, many of which have failed to live up to expectations. The fault, almost invariably, is not that the inputs are in themselves inadequate but that their application has been faulty. There is little advantage in better seed and more chemical fertilisers unless the farmer knows how to use them correctly. Good seed sown broadcast or expensive fertilisers applied indiscriminately will not produce the desired results. Perhaps more important is line-sowing and germination-testing for seed together with correct application of fertilisers.

Science and technology must be brought to bear to suggest the means for improvement and then hand over

the new methods and techniques to an extension agency which can demonstrate and push their use in the field. The existing extension agency, staffed largely at lower levels by persons without proper professional and technical competence, have not been able to sell the new ideas to the farmer. This means a much more intensive programme for training of staff and the use of modern extension methods.

Agricultural education itself was, until the recent establishment of the new Agricultural Universities, divorced from the practical. A change in teaching methods and a close association of our agricultural universities with research and extension is essential to bring about an integrated development programme. Teaching, research and extension form the tripod on which modern agriculture rests and, unless they are brought together, the scope for improvement will be limited.

### Economic Prices

The next important aspect is the provision of proper incentives to the farmer. We have, in the past, largely relied on subsidies, which can at best provide a temporary solution. We need a minimum guaranteed economic price to the producer in the field. The Government of India has just made an announcement on these lines. Without a firm price it is of little use expecting the farmer to spend more and more on inputs, all of which have a monetary value and yet leave the price of the output vague and unidentified. We must move away from the traditional concept of subsistence agriculture to a commercial operation where prices of both the inputs and outputs are known. The commercial incentive is

the surest way of increasing production.

The third important factor is to ensure that adequate supplies and resources are available to the farmer to meet his needs. Although supplies such as fertilisers, seeds, pesticides, agricultural implements etc. are now more readily available than in the past, it cannot be said with conviction that these commodities can be purchased by the farmer whenever he wants them. The area to be covered is so vast and the organisational problems so difficult that time-lags frequently occur and, since timely operations are of the very essence in agriculture, delays are both frustrating and an impediment to progress.

### Extension by Co-ops

In many countries, this work is done through co-operatives and, here too, the move is in this direction. Apart from the supply aspect, the organisation concerned should also provide a service to the consumer. The persons in charge of the supply points should be in a position to advise the farmer on the correct use of these supplies rather than merely hand them over and think that their work is done. In Japan, the co-operative movement employs personnel to demonstrate the use of the commodities in which they deal and to assist the consumer in their application. This is not being done at present by our own co-operative agencies and is a lacuna which can lead to wasteful use of items already in short supply.

As the farmer is often unable to meet the cost of these commodities, it is necessary to augment the availability of credit. To prevent any possible misuse, the credit structure should aim at providing commodities in kind rather than in cash. A start in this direction has already been made in most States. The linking of credit with marketing is another factor which provides a service to the farmer and, at the same time, promotes a rapid expansion of credit as the security of the loan increases. Some method of underwriting the risks of the farmer, particularly the poor farmer, needs

to be introduced. One cannot foresee a crop insurance programme in the near future but any advance in this direction, however small, will provide a great incentive for increased production.

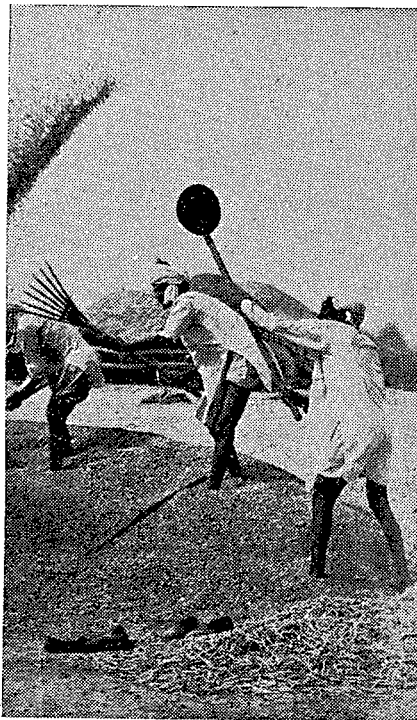
The vastness of the cropped area is by itself overwhelming and this has led to a move for intensifying efforts in selective areas which show promise. The Intensive Area Programme aims at a concentration of effort in selected areas with good potential for development. This approach can produce quick results and serve as an example to other areas. Here again, if we wish to make an impact on the quantum of food produced, it is not desirable to have too selective an approach. The Agricultural Production Board has accordingly decided that about 1,500 development blocks covering roughly 25 per cent of the cultivated area of the country should be selected for intensive agricultural development. Each area will be regarded as a 'project' for which appropriate programmes are being worked out. The latest scientific techniques and methods will be introduced, the necessary supplies made available and trained staff will be in position to demonstrate and advise. As soon as this is done, quick results should be forthcoming.

### Price Incentives

What of the farmer himself? The Indian farmer is impervious to heat and rain, is intelligent and industrious and yet the results he achieves are comparatively low. It is true that he is conservative but he does not lack the will to learn and improve provided the right conditions are created. It is necessary to create these conditions through price incentives, demonstration and extension programmes which cater to his needs. This means that modern methods have to be evolved and described in simple terms, using language which is clearly understood by him. Mahatma Gandhi showed how he could activate the people by using simple language. It is up to our research and extension workers to adopt the same approach. Research must be directed at the problems in the field and the results set down in a simple and easily understandable form. This is no easy task as it is always easier to elaborate than to simplify. The reward is also not as attractive as

our research workers will have to forgo the glamour of the published article in the learned academic journals and concentrate on small pamphlets simply worded and simply illustrated.

We must, therefore, provide alternative incentives to our research workers so as to attract them towards applied research and its expression in simple terms. It is disturbing to think that, whereas there have been numerous articles in scientific journals on all aspects of soil chemistry, a simple soil-testing kit which can be used by the farmer is yet to be evolved. Nor has the



farmer any means of testing his seed. We have to bring science to the door of the farmer and to do this we must discover the simple methods which he can use. We have also to make better use of all forms of communication media. We have many agencies and all types of media but it is necessary to have a much closer integration of these agencies. The agricultural information services and the extension agencies have to keep in close touch with research so as to publicise its results as early as possible.

Apart from this, the farmer needs information on current prices of all commodities, weather forecasts, warnings against danger from locusts and other pests. A system has to be

developed where all this will be a matter of course and will reach every farm family in the country. This may sound rather far-fetched but in all developed countries it is today strictly routine.

### Subsidiary Foods

The development of subsidiary foods is another important field of activity. We have always looked upon self-sufficiency in terms of food-grains. This is perhaps correct in view of the dietary habits of our people but it is obvious that we must make a positive attempt at changing the pattern of demand. There is probably no country in the world which would be self-sufficient in terms of food-grains alone. It is their use of other foods which create a surplus in food grains. We must also concentrate on the production of such subsidiary foods as, in keeping with our social customs, can be readily introduced. Fish and eggs have a large and expanding market. It is, in fact, most encouraging to know that, in spite of a spurt in the production of eggs, the demand has risen to meet the supply, even in the rural areas. These subsidiary foods have a high nutritional value and are easily and quickly produced. Chicken, which is still a luxury food in India, is the cheapest meat available in many other countries. It would appear possible to achieve the same results here. The development of inland and marine fisheries can also greatly augment our food resources. If we find a simple way of chilling and preserving milk, we can tap large resources in villages which are at present too far from urban demand centres or collection points.

Mr. Stevenson is Joint Secretary, Planning Commission. Formerly he was Vice-Chancellor of the U.P. Agricultural University. This was broadcast from AIR Delhi.

### DVC Power House at Chandrapura

The first unit (capacity 140 MW) of the thermal power house at Chandrapura of the Damodar Valley Corporation is to be commissioned in this month. Located in the coal area in the Hazaribagh district of Bihar, the Chandrapura power house will have an installed capacity of 420 MW, with facility for expansion to 840 MW.

The U.S.A. have given loans of Rs 42.4 crore to finance the project.

# HOW JAPAN CONTROLS FOOD TRADE

## *All Rice has to be Sold to State: Policy of Low Prices for Consumers and Fair Returns for Growers*

MANGAL CHAND JAIN

JAPANESE agriculture has attained the highest yields of rice and wheat in the world—47.5 quintals of rice and 23.6 quintals of wheat per hectare on an average.

Yet Japan imports grain, about a fifth of its needs being grown abroad.

That is because Japan has large population and limited area. Of its 370,000 square kilometres, a large part is mountainous, and only 16 per cent of the total land area<sup>1</sup> is agricultural. And much of the arable land is of low fertility.

While these unfavourable factors make the achievements of Japanese agriculture the more remarkable, the Japanese have to import grain to feed themselves.

The imports are paid for through earnings from industrial exports.

War reduced Japan's national income to half but since then it has increased by about 325 per cent—rising from a level of 361 billion yen (1946) to 15,421 billion yen in 1962.

No country of Europe or America, except West Germany, has had such rapid growth. The expansion itself has been achieved because of the imperative need to earn foreign exchange.

The fact that industry earns enough to feed the people through imports has not led the Japanese to ignore agriculture. Quite the contrary. There is intense concentration of effort on farming, making Japanese farm management a byword for efficiency. The high yields are the fruit of hard labour and scientific farming techniques. The overall self-sufficiency ratio works out to 80 per cent of the requirements (1953-55).<sup>2</sup>

In 1960, the Japanese imports of wheat amounted to about 11 per cent, of barley 8 per cent, of maize 12 per cent, of rice 3.2 per cent, of sugar 8 per cent of the world imports.<sup>3</sup> In 1962 the food import bill amounted to 12 per cent of her total imports.<sup>4</sup>

The following table gives the production and imports of important food grains in Japan :

	('000 metric tonnes)	
	Imports 1961	Production 1961—62
Rice (paddy)	126 <sup>5</sup>	15,523
Wheat	2,631	1,781
Barley	neg	1,976
Maize	1,831	116

Source : *Year Book of International Trade Statistics 1961*

THE growing food demand, owing to increases in population and incomes, the low self-sufficiency ratio, and the large volume of imports call for a number of measures involving organisation of production, consumption, importation and distribution.

Since rice imports are not easy, the Japanese people have to some extent been switching over to wheat and barley. Another important change in the consumption pattern is the increased intake of livestock products, with the coarse grains being fed to animals. Besides, there is increasing tendency towards consumption of processed foods and vegetables.

Agricultural land is ordinarily divided between paddy land and upland. Half of the acreage is under paddy and the rest under wheat, barley, potatoes, soyabean and other industrial crops and fruits

and vegetables. Agricultural operations are conducted on small farms—on family basis (the average family has six members). There are about 6 million farms—supporting 35 per cent of Japan's 17 million households and 41 per cent of the population. One-third of the farms are of less than 0.5 hectare and nearly two-thirds are of less than 1 hectare. Because of the smallness of the farms the Japanese put in hard labour and make the best use of their resources. Up to 13 hours of work a day is very common and women work as hard as men. These being family ventures, no wages are paid to members, but family incomes are often supplemented by work in factories and other non-farm vocations. On the average a household gets 40 per cent of its total income from non-farm work.<sup>6</sup> Rice accounts for half of the farm income and is the staple food of the nation.

The Government has assumed responsibility for providing food to consumers at reasonable prices, for increasing production, and for maintaining remunerative and stable prices for the growers. There is price support for rice, barley, wheat and a number of other farm products. Rice is under the direct control of Government. Farmers are required to sell to Government the rice they grow (minus what they require for own consumption). Purchase is done through agricultural co-operatives or government agencies. The prices are set by a Price Committee composed of members of Parliament, representatives of consumers and producers and people of professional standing.

The system of compulsory procurement and sale has alleviated the conditions of the common people but has not been immune from the attendant defect of a black market. It is estimated that in 1956, dependence on black market rice was to the tune of 38 per cent of the total need<sup>7</sup>. Changes have been made more recently in regard to delivery procedures and prices to remove the defects. The sale price of rice is lower than the purchase price, and this has reduced the dependence on black market. It, no doubt, involves Government in considerable

financial loss. Administrative expenses come to 15 per cent of consumer's price, but this proportion is less than the prewar level of 24 per cent.

Wheat, barley and other grains, unlike rice, are now under indirect control. Under the scheme, producers are given the option to sell their grain either to Government, which undertakes to buy in unlimited quantities, or in the open market. The food agency of the Government buys wheat, barley etc. through its assigned collectors at declared prices and sells it to consumers and processors at official prices. The official purchase prices are higher than the sale prices, as can be seen by the following figures:

		1958	
		Purchase Price \$	Sale Price
Wheat	Per tonne	102	95
Barley (common)	„	94	89
Barley (naked)	„	106	95

Source : National Grain Policies, Supplement 2, p. 90

The figures are illustrative as they are changed for each crop year depending on the circumstances. However, there have been minor changes in selling rates.

The prices of wheat and barley are set by a parity formula, the purpose being to compensate farmers for rise in prices of goods which they buy generally. The size of the loss on account of paying a parity price and sale at lower price amounted in the late fifties to around 9,000 million yen a year. This, however included administrative expenses and storage charges. But profit is made on imported food grains—about \$25 to 30 per ton of imported wheat.

All the state trading operations involving money are accounted for in a special account. Annually sums are provided by the Government to meet the losses in state trading in rice, wheat, barley, beans, sugar etc. Attempts are made to provide a regular flow of feed grains to the livestock industry. The feed grains (barley and maize) are stored, marketed and supplied by the Government. The selling price of maize, the entire supply of which is used for feed, is lower than the import and domestic price. This amounts to a subsidy for livestock farmers.

All commercial imports are subject to licences, applications for which are made either to foreign exchange banks or the Ministry of International Trade and Industry. Two systems of licensing are in vogue, namely the automatic approval system and the foreign exchange allocation fund system. Under the former, licences are given for specified commodities up to an over-all quota; under the latter, prior application to the Ministry for allocation of exchange is necessary. Basic raw materials, maize and wheat bran come under automatic system and others such as wheat flour, rye and oats fall under fund allocation system.

Rice, wheat and barley are directly or indirectly under Government control. Imports of wheat and barley are made by the food agency of the Government through registered importers. Feed wheat is imported exclusively by the Government and no currency is allocated to non-governmental dealers. Maize, apart from the Government imports, is also purchased by non-governmental dealers under the automatic approval system from anywhere in the world. Licences for the import of food grains are given to lowest bidders. The imported grains are resold to Government at auctioned prices, and are sold by the Government to the public. Any gain arising out of the transaction is used for setting off the loss on domestic produce.

The experience of an advanced and still growing nation like Japan suggests that feeding the people is a formidable problem which should be solved by courage and resourcefulness. It requires understanding and co-operation between the government and the public. Shortage of land can be compensated to a great measure by hard labour, better farming techniques, and fuller use of irrigation and manurial resources. A change in eating habits is also called for to some extent. Besides governmental assistance in the form of financial capital, tools and implements, establishment of a secure and stable market through price support is an essential condition for increasing production. State trading in food is not only desirable but essential. State trading in food, the experience suggests, is not a profit-

able venture, but it has salutary effect in stabilising the economy and saving millions from exploitation.

1. *Farm Management in Japan*, FAO, 1962.
2. *Japan's Agriculture and Forestry White Paper*, August 1957
3. *F.A.O. Trade Year Book 1961*. The figures for barley relate to 1959.
4. *Economic Survey for Asia & Far East*, 1963
5. *Rice not in husk*
6. *Farm Development in Japan*, FAO, p. 12
7. *39 kg per family of 5 members*. *Japan's Agriculture & Forestry White Paper*, Table 19.

## THIS CO-OP NEVER BORROWED

C. R. RATHEE

A CO-OPERATIVE credit society in Punjab has never borrowed any money from any bank or any Government agency during the past forty years of its life; yet it has been helping its members and has grown from strength to strength.

It is the Teachers' Thrift and Credit Co-operative Society of Faridkot. The society has now been building a teachers' home and hostel at Faridkot out of its own profits.

The society was started forty years ago with only 25 members. Now it claims a membership of 500 teachers, working and retired, from schools and colleges all over the Faridkot sub-division. Among its members are inspectors of schools, district education officers and an assistant director of public instruction. It has a capital of Rs 3 lakh.

Every member deposits a certain percentage of his salary with the society every month. He gets an interest at the rate of 40 paise per Rs 100 per month. He is also entitled to borrow from the society a maximum amount of Rs 1,000 at the same rate of interest. The loan can be had for building a house, education and marriage of children and other family requirements. A loan has generally to be returned in 24 equal monthly instalments.

The society gives stipends to the poor and deserving children of the members for their higher education. Widowed women and daughters of members are also given financial help in times of need.

The affairs of the society are looked after by an elected body of members who work in honorary capacity. The present elected body has been continuing for the past ten years.

# PRIORITIES IN PLANNING

## More Detailed Study of Costs and Benefits Necessary

P. R. DUBHASHI

THE Fourth Five Year Plan is on the anvil. It is taking shape in the context of scarcity and rising prices. The pressure of circumstances will undoubtedly be an important factor in the determination of its size. But whatever its size, economic principles should prevail over merely technological, ideological or other considerations. The basic economic principle, of course, is that the choice of projects should be dependent on costs and returns; in other words, the priority of a project in the Plan derives from the ratio of net benefit to total cost. The order of priorities among projects has to be in the descending order of this ratio.

The economic principle thus stated may appear to be simple but its application to projects of public investment is fraught with several technical difficulties. In the first instance, the net benefit of a project of public investment cannot obviously be calculated at market prices if the goods and services emerging out of these projects are not bought and sold in the market. The typical instance of non-marketable services provided out of public cost is security and law and order maintained by the police force. This, however, is an item which falls outside the scope of development activities. But even in the field of development the benefits of roads, drainage and sanitation or even health and educational services as also research and extension may not lend themselves to the market calculus. In some cases the benefits may even be imperceptible in the short run, or non-economic in character.

How do we then arrive at the cost benefit ratio in cases of projects of

this nature? That some goods and services do not have any market prices does not, however, necessarily mean that fees are not charged should these activities be taken up by private enterprise. It should, therefore, be possible to take the prevailing fees as a rough indicator in the calculation of benefit-cost ratio. In cases where even this indicator is not available, the only measuring rod available is 'social valuation' which can be assessed as accurately as possible but whose magnitude cannot be asserted with any degree of certitude.

EVEN in the case of marketable goods and services flowing from public investments a number of other difficulties would arise if an attempt is made, as it should be, to calculate direct, indirect and secondary benefits and costs.

In the calculation of direct benefits and costs, the complications arise out of the need to quantify the concept of social costs and social benefits of projects, that is uncompensated losses and uncompensated gains for society caused by a given project. The ill-health and congestion produced by industrialisation and "external economies of atmosphere", to borrow Prof. Meade's phrase, provided by a private industrial project are instances of losses and gains to society for which no compensation is paid or received by the private entrepreneur who is responsible for it.

While in a market economy or for purposes of private investment, these considerations may have no bearing, for society as a whole and for public investment they are of vital significance and have to be taken

into account in the calculation of benefit-cost ratio.

Amongst the indirect consequences of a project or a unit of public investment are those on the costs and returns of other enterprises which either supply goods and services to it or those that provide demand or market for its goods and services. A public investment, by raising the demand for goods and services of another enterprise, may provide advantages of the large scale of production and thus make it worthwhile. Similarly on the demand side, by producing goods and services required by another enterprise at lower costs, it might make it economic for another enterprise to thrive.

Thus enterprises which by themselves might not have sprung up in a given market situation, might be established through an extra market decision of a joint investment in complementary projects. On the contrary, by competing for a given quantum of scarce resources and by raising their prices, an enterprise might supplant or at least adversely affect other enterprises. These are important external economies and diseconomies of an enterprise which, while of no consequence to an individual producer of a single enterprise, are of the greatest significance to the planner.

The concept of secondary consequences of a project are related to the well-known idea of the "multiplier effect". A single dose of investment gives rise to a stream of secondary though gradually diminishing doses of demand, investment and employment. Unemployment and un-utilised resources are a drag on the economy and if a certain enterprise makes idle manpower and materials mobile by stimulating a few more enterprises through income-effect, then it does a signal contribution to economic development which cannot be overlooked by the planner.

EVEN if the direct, indirect and secondary benefits are identified the question of the prices at which they have to be calculated still remains. Should they be calculated at market prices? The difficulties in doing so arise from the fact that they may represent what

Prof. Tinbergen has called "fundamental disequilibria" in the economy as a result of which the factors of production may be overvalued or undervalued. The prices in the market at present may be different from what would exist at the end of the completion of a project or a series of projects. It is, therefore, necessary that the planner makes his calculations of benefits and costs by utilising what are called "shadow" or "accounting prices" rather than the market prices.

Finally, benefits accrue at different points of time and some discount rate has to be adopted to even out variations to arrive at the present value of benefits.

These concepts are, of course, well known; but of crucial importance to the scientific application of the principle of economy and to project evaluation is the crystallisation of these concepts in concrete terms and refinement of techniques by which they could be expressed in terms of quantities to make possible the allotment of priorities to

projects strictly in accordance with the ratio of the direct, indirect and secondary benefits of a project to its total costs. The Fourth Five Year Plan must register significant advances in this direction.

## SHRAM VIR— NEW AWARD

National awards have been instituted for the most efficient workers in factories, mines, plantations and docks. There will be five prizes in Shram Vir Class I carrying a prize money of Rs 2,000 each, 10 prizes in Shram Vir Class II with a prize money of Rs 1,000 each, and 20 prizes in Shram Vir Class III with a prize money of Rs 500 each. A certificate also will be given to the awardee.

National Safety Awards also have been instituted for promoting safety consciousness in industrial units. Cash prizes, cups and trophies will be given.

## IRRIGATION PROJECTS

At a meeting held on October 23 the Planning Commission decided that benefit-cost ratios should be worked out in respect of all major and medium irrigation projects to be included in the Fourth Plan. The meeting was held to consider the report on "Criteria for Appraising the Feasibility of Irrigation Projects" prepared by a special sub-committee of the Research Programmes Committee of the Planning Commission. The special sub-committee had made investment studies of five well-established irrigation projects, namely, Cauveri-Mettur, Sarda, Damodar, Tribeni and Ganga and had recommended that benefit-cost ratio should be adopted as the criterion for judging all irrigation projects. It was also decided that a working group consisting of irrigation experts, economists and planners should prepare a manual of standard methods for calculating the benefit-cost ratio. The group will be headed by Mr B.S. Nag, Adviser, Planning Commission.

Without photographers, it appears, democracies are helpless.

—Mr Lal Bahadur Shastri

"I notice a change in the position of the Prime Minister's desk."

"Yes, you are right. Panditji used to sit facing north. Now I sit facing west....."

—From an interview with the Prime Minister in "The Illustrated Weekly"

Someone from among the wildly cheering crowd (after the Second Test match in Bombay) tried to shake hands with Chandu Borde and snatched away the bat which had brought India victory.

—"Tide"

The people expect to hear from him (Mr Lal Bahadur Shastri) of his Government's decisions and its plans of action. He is not just the people's counsellor. He is the leader of their government.

—S. M. in "The Hindustan Times"

His friends in France said that M Sartre did not want any prize, "whether a sack of potatoes or a Nobel Prize".

—Press report

Though Inspectors-General of Police, Directors of Public Instruction or Secretaries of Ministries do not automatically make good Vice-Chancellors, nevertheless universities must also be, now and again, prepared to accept leadership from figures from outside the academic world.

—Mr Chanchal Sarkar

## QUOTATION BOX

A citizen in England enjoys more freedom and more security of property and person without a chapter on fundamental rights than a citizen does in India with a chapter on Fundamental Rights.

—Mr D. Narasaraju, former Advocate-General of Andhra Pradesh

A recent raid by income-tax authorities in Bombay revealed that a man had never paid tax even though he had in his possession Rs 35 lakh.

—A Press Trust of India report

In the event of a world adulteration exhibition we can look forward to walking away with the cup.

—Letter in "The Statesman"

The common man's anger cannot be ignored on the plea that he did not understand the economic aspect of development.

—Prof. V. K. R. V. Rao

Our teaching of English is incredibly dull and misguided: countless children are taught by methods that could not be better designed to conceal from them the entire profit, pleasure, and sense of using language with what resource we can.

—From the B.B.C. Listener

Mr Khrushchev is, metaphorically speaking, the first victim of the Chinese bomb.

—Mr Isaac Deutscher, authority on Soviet Russia

With enough pure fissionable material the problem is not so much to explode it as to keep from exploding it.

—The Science Correspondent of "The Statesman" on the Chinese bomb

American attitudes are appalling, but so are the attitudes of most of the people in the world.

—James Baldwin, the American author

"Mr. Wilson : What are your most urgent preoccupations ?"

"Three things : First, and this is a condition of the rest, to re-establish a sense of economic purpose in our national life".

—From an interview in a London paper

For sheer corruption at its most putrescent, for lack of pride in self and country, the Indian customs officer has no peer anywhere in the world.

—An American Shipping Officer in a letter in "The Indian Express"

His (Mr. Bramick's) view is very limited. The character of a port anywhere is coarse..New York is not a bastion of purity or high ethics, as he implies.....I had most valuable items stolen from me in broad daylight during one summer's work in Kansas City than during my 15 months' stay in India.

—From reply by another American in the same paper.

Our atom bomb is small but from the very day of its birth, it joined the struggle for peace.

—Mr. Chou-En-lai

# V For VIJAYANTA

**T**HE Heavy Vehicles Factory of the Defence Ministry, being set up at Avadi near Madras, has produced the prototype of a medium tank.

Besides tanks, the Rs 16-crore Avadi factory will produce various types of armoured, fighting, and tracked vehicles and other heavy engineering equipment required by the Defence Services.

A medium tank weighs between 20 and 45 tons and costs about Rs 10 lakh. Initially the Indian tanks will be made by assembling about 70 per cent of imported parts and 30 per cent of indigenously manufactured ones. The indigenous content will be increased to 90 per cent in the long run. Rourkela will supply the special steel required for it. Regular production of medium tanks is expected to start by the end of 1965.

The prototype is now on test. Its working was formally demonstrated at Ahmednagar on October 25. The place was chosen because the school and centre of the Armoured Corps are located there. The tank successfully negotiated steep up-hill slopes. It will be an asset to our troops at the high altitudes on the Himalayan border.

The tank has been given the name Vijayanta.

## SNIPPETS

Canada has given a loan of two million dollars to Hindustan Steel Limited for purchasing reheating and heat-treating furnaces for the Durgapur steel plant....India has signed an agreement for fair compensation and other facilities for capital investment in India by West German interests....A bridge on the Burhi Gandak on the 320-km. Baruni-Bhulwaria section of the Bihar-Assam National Highway has been opened to traffic. It will facilitate tourist traffic from Patna to Darjeeling....The Heavy Electricals, Bhopal, has undertaken to supply 115 industrial motors and associated control gear ranging from 100 to 300 kv to the Coal Mining Machinery Project, Durgapur....Five lakh acres of land have been brought under improved seeds in the Ajaygarh



**BRIGHT SPOT**

### PRIZE COW GIVES 63 lb. A DAY

A Haryana cow of Sri Sadguru Harisingh Breeding and Agricultural Farm, Jivan Nagar (Punjab), has won the first prize of Rs 5,000 for the highest daily milk yield this year. It gave 63 lb of milk per day on the average.

The breeder has been awarded the title of Gopal Ratna.

(For report on Jivan Nagar see *Yojana* of December 8, 1963)

development block in the Panna district of Madhya Pradesh...The Mola irrigation project in the Guna district of Madhya Pradesh has been completed to irrigate 5,600 acres of land in the district....A new factory to manufacture cables has gone into production at Ambattur in Madras State....Air India has introduced a year-round daily air service to New York. A new arrangement to this effect has been entered into with the U.S.A....The Union Government approved 103 industrial units with foreign collaboration during the quarter ending September last.. The creation of an irrigation potential of 100 million acres and electrification of one lakh villages have been set as targets for Gandhiji's birth centenary in October 1969..A wage board will soon be appointed for port and dock workers..A project for mechanised harvesting of forest wood has started working in the Kothi forests in Kulu valley (Punjab). A mechanised unit has been set up at a cost of Rs 16 lakh to fell spruce, fir, deodar and pine trees and haul the wood on a large scale.

## \$62 MILLION FOR RAILWAYS

The International Development Association, an associate of the World Bank, has given a loan of 62 million dollars (Rs 30 crore) to Indian Railways.

The loan will be used for importing steel and components for locomotives, electric multiple units, coaches and wagons, track and signalling equipment and materials for the electrification programmes, during July 1964-September 1965.

The loan will be repaid in 40 years beginning from 1974.

IDA has so far given loans exceeding 500 million dollars (including 129.5 million dollars to Railways) for development purposes in India.

## PINJORE'S FIRST

The Pinjore factory of the Hindustan Machine Tools has produced its first all-electric milling machine. The machine has been sent to Japan for display at the International Machine Tools Fair.

The Pinjore factory is expected to attain a production target of a crore of rupees by the end of 1964-65. It will ultimately have an annual production capacity of machines worth Rs 5 crore.

## RISE IN TEA EXPORTS

India exported 90.63 million kilograms of tea worth Rs. 55.93 crore during the first half of the current financial year—a rise of Rs 3.39 crore over the corresponding period of 1963-64.

The exports of the various processed foods during April-July this year amounted to Rs 99 lakh, compared to Rs 92 lakh during the corresponding period last year.

## SURGICAL TOOLS FACTORY

The tool room of the surgical instruments plant being set up near Madras has been commissioned. The Soviet-assisted factory will cost Rs. 5.25 crore and will manufacture surgical tools worth Rs. 2 crore every year.

# More Food & Goods for People

## PUBLIC SECTOR TO PRODUCE CONSUMER ARTICLES

### Prime Minister Demands Redoubled Effort in 4th Plan

Following are the main observations of the Prime Minister and Chairman of the Planning Commission, Mr. Lal Bahadur Shastri, in his opening address to the meeting of the National Development Council in New Delhi on October 27:

THIS is the first meeting of this Council which will not have the guidance of Jawaharlalji. But the objectives which he set before the country are there to guide us.

We have to function in a complicated world. There is the explosion of the atom bomb by China. In accordance with our past traditions we have to remain cool. We do not want to be war-minded. India must fly the flag of peace. At the same time it must safeguard its freedom, integrity and sovereignty.

The Memorandum on the Fourth Plan, prepared by the Planning Commission, must be regarded as essentially a first approximation. It is the essence of the planning process to seek a balance between the problems of today and the potentialities of the future, between resources and needs, and between the immediate and the ultimate.

*There is no doubt that what we have already achieved is something to be proud of. Taking the decade covered by the first two Plans as a whole, national income increased by 44 per cent, per capita income by 18.5 per cent and per capita consumption by about 16 per cent despite the fact that population had grown by 21.6 per cent.*

#### Sluggishness Must End

In regard to the Third Plan, the Mid-Term Appraisal, which was undertaken last year, revealed that the progress in the first two years had been very slow indeed. Some of the reasons for it were undoubtedly outside our control. But we would be less than honest if we did not face up to the fact that our own performance was, in many respects, poor. Fortunately, in the third and fourth years of the Plan, progress

### *"Speed is the only Cure for Frustration"*

has been somewhat better than in the first two years. But it is not good enough. The growth in national income was 2.6 per cent in 1961-62, 2.4 per cent in 1962-63 and a little above 4 per cent in 1963-64, while our aim was to have an increase of more than 5 per cent each year.

*This sluggishness in our growth obviously calls for redoubling of our efforts. If we are lagging behind, we must increase our speed. Unfortunately, the slow rate of growth has left us with less of resources. It has engendered a sense of frustration. Even the shortages and high prices are themselves the result of the slow rate of our progress.*

How do we overcome these difficulties is the real problem before us. I would suggest that apart from the consideration which the Council would be giving to the Memorandum on the Fourth Plan we should apply our minds to a few specific and concrete problems confronting us. First and foremost, there is the problem of increased agricultural production, of procurement of food grains and their distribution and of the regular supply of a few other articles of daily necessity.

#### Results in Farming

*All of us know that our achievements in the agricultural sector have not been up to the mark. What we need now is a programme of concrete action. Such a programme to produce immediate results has to be conceived in terms of the resources and facilities which are available and not in terms of what might be done in ideal conditions or in the distant future.*

All too often there are complaints

about the shortage of fertilisers because we do not produce enough and cannot import enough. But are we making the fullest possible use of compost, manure and other indigenous available sources of nutrition for the soil? We are planning, and rightly, many major irrigation projects. But even while these are under construction, are we doing all we can in the field of minor irrigation?

Surely these are within our reach if we go about our task in a spirit of self-help.

#### Toning up of District

All too often we think of these things at the national level and the State level, while there is neglect and even confusion at the village level. The farmer has now to deal separately with representatives of different Government agencies each owing allegiance to a Department or Ministry at the headquarters of the State or Central Government.

*The co-ordinating role which the District Officer used to play in the past has been lost. I would suggest to all the Chief Ministers present here today that they should restore to the District Officer, whether he is known as the Collector or the Deputy Commissioner, the status of a co-ordinator of all governmental activities in the district and confer upon him the responsibility for guiding all the efforts undertaken on behalf of Government, Central or State.*

This may well mean splitting up the larger districts into more compact administrative units, even if it means more expenditure which will be well worth while.

*This toning up of administration is essential, whether we think of our short-term problems or of our long-term problems, of agriculture or of industry. Without better administration, control over prices, a more equitable distribution of available supplies*

and all the other things which we need to impart stability to the economy will be impossible.

And again it is only through better administration that our public sector projects can be completed with speed and the private sector too can discharge its responsibilities in the way that it should.

### Fourth Plan Aims

**E**VEN while we concentrate on measures to deal with our current problems and take steps to improve our efficiency and performance in the remaining months of the Third Plan, we cannot but start thinking of the Fourth Plan and the Memorandum prepared by the Planning Commission is the main item of business before us today.

*What should be the main objective of the Fourth Plan? It must ensure that in spite of unanticipated difficulties in the immediate past, the move towards a better life for the common people maintains its momentum. We have, therefore, to aim at as large a Plan as we can possibly find the necessary resources for. The programme outlined in the Memorandum envisages an outlay in the public sector ranging between Rs 14,500 crore and Rs 15,500 crore against the estimated resources for the public sector of Rs 14,500 crore.*

Even this order of resources is based on certain assumptions.

### Resources & Exchange

Thus one of the main issues to which the Council should apply its mind today is the task of resource mobilisation. There have been shortfalls in the State sector during the Third Plan. We cannot take such a risk in the Fourth Plan. I say this not to find fault with the State Governments whose contribution to our resources is below the target. I know the States have had difficulties and problems. We must anticipate them so far as the Fourth Plan is concerned and not give in to them when the time comes. The National Development Council may well like to set up a sub-committee to consider this important matter in detail, as also of priorities to be accorded.

*So far as the rural population is concerned no one likes to add to the burdens of the farmer. Yet I know he would be willing to pay more if*

*he sees some tangible results before his eyes.*

Perhaps one reason why we find it so difficult to secure the co-operation of the farmer in the matter is that we do not establish the kind of visible link which is needed between the contribution which the farmer makes and the benefits that accrue to him. The farmer faces the Government as a collector of revenues through its District Administration. He also sees a number of other people who are building roads, bridges, hospitals and schools, providing fertilisers, seeds and credit. He does not see the link between the two sets of operations.

In my opinion, we shall have greater successes in raising additional revenues from the agricultural community if we can give them the orientation and appearance of a betterment levy. Thus, if a new bridge is built and a toll charged for it, the user understands its logic and feels that he is paying for a service and not being taxed. The same logic applies to the other amenities which we provide. Of course, the larger agriculturists can be expected to make larger contributions.

Another matter connected with resources in which we must all make a combined effort is in the earning of foreign exchange. Ever since 1958, the shortage of foreign exchange has been one of the most serious handicaps to our development.

*One reason why our decisions cannot be quick, why many factories have idle capacity, why machinery which is damaged or broken down cannot be replaced immediately, is the dire shortage of foreign exchange—which has persisted despite the aid that we have received. Foreign exchange continues to be a major matter of concern for our Fourth Plan.*

It is thus essential that our export drive should do even better. Here again is a subject for which the Centre is responsible in matter of form, but in substance, the effort to increase our exports depends very considerably on the support and co-operation of the State Governments. I suggest to State Governments to have a special cell which will pay special attention to exports.

Another matter in which co-operation between States is most essential is irrigation and flood

control. It often happens that steps taken in one State lead to serious difficulties in another. We have seen in recent months how vast areas of good agricultural land have been rendered unusable by flood waters which cannot be drained out. The worst position is in Punjab, Delhi and parts of Uttar Pradesh. This is a problem which has to be dealt with on a regional basis. If we can deal with this problem effectively, we would have made a substantial contribution towards increased food production.

### National Thinking

**T**HE more I think of our problems today, the more convinced I am that there is much greater need for co-ordination and solidarity than is generally realised.

*The main task of the National Development Council should be to promote thinking on a national plane for the attainment of our national objectives. State Governments must certainly attach the greatest importance to the State Plans. They have to be discussed, however, within the framework of the national Plan and I feel that discussion at this meeting should be mainly on the national Plan and the national effort needed to sustain it.*

I have deliberately refrained from going into the details of the Memorandum the Planning Commission has placed before us. This is because the Memorandum speaks for itself and I should like to leave it to the Deputy Chairman, who is a distinguished leader of an able team, to draw the Council's attention to the salient points of the Memorandum.

The Planning Commission is the brains-trust of our development. It is not a part of the Central Government and we look to it for taking an objective view of our economic problems and how we should meet them. These problems have become more difficult and more complex.

*Both the Deputy Chairman of the Planning Commission and I have, therefore, felt that it would be an advantage if more experts could be associated with the preparation of the Fourth Plan.*

### Council of Experts

Unfortunately, the number of top-level experts in the country is

limited and it is not easy for them to give up the important tasks on which they are already engaged in order to work on whole-time basis on the formulation of our Plan. I have, therefore, in consultation with the Planning Commission, come to the conclusion that it would be most useful if we were to constitute an *ad hoc* body consisting of scientists, engineers, economists and other experts who could help the Planning Commission on a part-time basis.

*The intention is not to have yet another advisory body, nor a body which will meet for a day or two at long intervals, look at some memoranda, offer its comments and disperse, but to get people to work on the Plan, spending a week to a fortnight in Delhi at a stretch and giving their best to our national effort. It is proposed to call this body as the National Planning Council to consist of 15 to 20 people who are prepared to work in the manner that I have just indicated. I would also like to inform you that the Deputy Chairman of the Planning Commission would be the Chairman of the National Planning Council.*

What I should like to see in our future planning is indeed a complete, self-contained and well-co-ordinated plan for industry and another one for agriculture, each closely bringing out the employment aspect, which to my mind, deserves deeper consideration. On the industrial side the detail of each major project should be worked out. Its timetable of implementation should be prepared fully and we should know what building materials, what machinery and what raw materials would be needed and when.

In the past, the ultimate cost of a project has tended to be tremendously different from the original estimates. Some variations are understandable and inevitable, but we cannot allow the kind of differences that have frequently been known in our previous Plans. Similarly, we should have estimates of the cost of the ultimate product and the profits which we expect to make.

If this task has been performed realistically and thoroughly, it will be much easier to keep a watch on progress and performance and to find out, if there is any shortfall,

where and on whom the responsibility lies.

Such an approach is necessary not merely for industry, but also for agriculture. It is not enough to talk in terms of the money to be spent on agriculture, or even of the money to be spent on irrigation, seeds and fertilisers. We have to adopt a project approach towards agriculture also. We should know for each such project what supplies, what facilities are needed and also have an estimate of what extra production we hope to get thereby.

### Socialism as Objective

I should like to say here a word about the relative roles of the private sector and the public sector. Our objective, as you all know, is socialism. This does mean an immense growth of the public sector. In regard to the private sector each Plan sets out what the private sector will do and what the public sector will do. Failure in either sector affects the Plan and creates imbalances in the economy. We have, therefore, to ensure that the targets allotted to the private sector, no less than those allotted to the public sector, in our Plan are fulfilled. The private sector has had and will continue to have a role to play in our expanding economy.

*The Industrial Policy Resolution has already brought out that the two sectors cannot work in water-tight compartments. In the context of rising prices and the difficulties which the common man has to face about basic consumer goods, it would be necessary that some of the consumer goods industries also are developed in the public sector.*

It seems to me that Government should also set up textile mills, sugar factories, and plants for the manufacture of cement, drugs and medicines. Only then can we be assured that the shortages which we have been experiencing in the recent past will not become chronic. Such industries also will give us better profits and a scope for larger employment.

### Heavy Industries

Heavy industries will, of course, continue to be the backbone of

our economic development. Steel and machinery must be produced in larger quantities. Care has to be taken that we secure the utmost out of the investment which we make in heavy industry in the shortest possible time. *Planning of heavy industries for the Fourth Plan has to be on the basis of performance.* Only then will planning become more real and more accurate.

Unless we can stabilise prices, increase production and improve our administration, the most careful Plan will not help us. We who claim to be responsible to the people have to be responsive to the people. It is up to us to restore to them a sense of dignity and hope. Unless we are able to do this in the remaining year and a half of this Plan, our Fourth Plan may not succeed, no matter what resources we mobilise.

*The Fourth Plan presents a challenge to the nation. The challenge can only be met if we are prepared to undertake the many tasks which confront us with a truly national approach.*

## YOJANA BHAVAN DIARY

The Planning Commission has set up a panel on the welfare of backward classes under the chairmanship of Professor V.K.R.V. Rao.

Mr K.A.P. Stevenson, Joint Secretary, Planning Commission and Dr K.S. Gill, Director, Economic, Finance and Resources Division left for West Germany to take part in a seminar on Problems of Economic Planning, to be held at West Berlin from November 9 to December 8, under the auspices of the German Foundation for Developing Countries.

Mr T.P. Singh, Secretary, Planning Commission, took part, as leader of a five-member delegation, in the second session of the Conference of Asian Economic Planners held at Bangkok between October 19 and 26, under the auspices of the ECAFE.

Professor M.S. Thacker, member, Planning Commission, left for New York on October 31 to attend the meeting of the United Nations Advisory Committee on Application of Science and Technology to Development.

# Kiriburu Report

(From Page 13)

the South block (64 million tonnes) which has been prospected and not yet worked; and a third portion north of Kiriburu. This portion contains two deposits; one which is still under prospecting and the other called the Meghahatuburu deposit which contains 132 million tonnes of ore.

The average grade of the reserves is 63 per cent Fe. It is the North block which is now active. The exploitation of this block is expected to continue for another 30 years at the present rate of production.

It is easier to mine iron ore than to mine copper, gold and silver. No burrowing underground becomes necessary. All that is required is to dig out the ore from the hill, crush it into manageable lumps and transport it in trains or trucks to the ports. In Kiriburu all this is done mechanically. So highly mechanised is the work that it is difficult to see more than a dozen people at work at any point of activity. (It is calculated that in full production the project may not have more than 1,000 workers in all).

The first operation is to split the rocks by blasting. This is done by drilling a series of holes using a mechanical drill and blasting the rock. Electrically operated shovels pick up the ore in large buckets and load them on to dumpers. The dumpers carry the ore to the crushing plant on the hill slope, some distance away.

The crushing plant performs a very important function by reducing the big lumps to convenient sizes. In the iron ore trade, the size in which the ore is sold matters most. In fact it is one of the two factors determining the price—the other being iron content. For instance, Japan, which buys from Kiriburu, wants the ore in lumps of particular sizes. This is because their blast furnaces are designed to take the ore in those sizes.

All the ore crushed in the process into bits smaller than the speci-

Stockpile of ore



fied sizes (or reduced into fine particles of dust) are termed 'fines'. Fines as such do not fetch a good price. In fact no one prefers fines in their natural state unless they are upgraded and converted into sinters or pellets. The percentage of fines tolerated by the buyer generally forms an important part of the agreement. Japan accepts ore with up to 10 per cent fines from us. Since fines get formed in all stages of production the screening and handling of the ore thus becomes a very important operation.

The Kiriburu crushing plant is a huge structure built on the terraced slope of the hill. The plant, built with Japanese machinery, is designed to handle about 1,200 tonnes of ore per hour. The ore that is delivered to the plant by the dumpers passes through several stages. It is crushed in two stages by huge crushers after which it is made to pass through screens and classifiers which separate the ore from the fines. "The fines are carried separately and dropped at point where a "fines hill" is slowly growing up which might

one day feed a pelletising plant at Kiriburu.

The ore is then carried by a conveyor belt to the point where it is loaded into railway wagons, to be carried to Visakhapatnam. The plant also has a stockpile of up to 50,000 tonnes of ore. This becomes useful to maintain an uninterrupted supply of ore in an emergency. The plant started trial production soon after its erection in August last year. This in a way marked the beginning of the supply of the Kiriburu ore to Japan. Since then the project has been despatching its ore at the rate of 0.3 million tonnes a year. A new agreement with Japan was concluded in the meantime to enable this partial supply to be made. The port at Visakhapatnam is now getting ready to handle the two million-tonne annual despatch.

## Changed Landscape

It is now five and a half years since the first batch of Kiriburu engineers pitched their tent on the bank of the Karo. Kiriburu's landscape today has changed vastly. The Karo now is a much tamed river. The wild animals have moved away, and the ore-laden dumpers plying on the forest roads are the new masters of the sanctuary. Kiriburu's biggest structure, the crushing plant, gives a modernity to the hills—hills that let themselves be dug into so that the nation can grow prosperous.

## The Mineral Development Corporation

The National Mineral Development Corporation was established on November 15, 1958.

The following projects are being worked by the Corporation.

1. *Kiriburu Iron Ore Project* (Bihar): The first assignment to the Corporation in 1959. The foundation laid in 1961 and completed in 1963; formal inauguration on November 12, 1964. (Details in this issue).

2. *Diamond Mining Project, Panna* (Madhya Pradesh): Assigned in December 1959; work begun in 1960. First auction of diamonds held in March last fetched Rs 3.5 lakh.

3. *Khetri Copper Project* (Rajas-

than): Assigned in 1961. (Details in *Yojana* of September 27).

*Bailadila Iron Ore Project* (Madhya Pradesh): Assigned in 1961 to supply annually 4 million tonnes of ore to Japan for 15 years from 1966. Proposed to expand production to 6 million tonnes a year to meet the full exports to Japan and relieve Kiriburu for supply to Bokaro plant.

The Corporation was asked to take up two more projects—a copper project at Daribo and an iron ore project at Redi (Maharashtra); but the former has been deferred for the present and the latter has been given up.

The paid-up share capital now is approximately Rs 8 crore.

# Two Million Tonnes a Year for 50 Years

*Says General Manager*

**T**HE Bokaro steel plant can score over the other three steel plants in the public sector in that the plant will have its iron ore mines working at Kiriburu before the plant itself has come," said Mr D.R. BHARADWAJ, General Manager of the Kiriburu Iron Ore Project of the National Mineral Development Corporation.

He continued: "In the case of other plants, ore mines had to be located and developed along with the project. But Bokaro will have no such problem."

A gist of the conversation with Mr Bharadwaj is given below:

*"But I learn that the Kiriburu mines are meant for export of iron ore to Japan?"*

"Yes. That's true. The Kiriburu project was taken up mainly for the export purposes. And it will continue to export ore to Japan under the contract. But there is a proposal to develop the Bailadilla mines for the exports and divert part of Kiriburu's production to Bokaro as the steel plant comes up. This arrangement will also make for economy. Bailadilla is nearer to the port and Kiriburu is nearer to Bokaro, thus saving a considerable expenditure on transport."

*"Do you have enough deposits to feed a steel plant and also meet the requirements of export trade?"*

"Quite enough. We can run the mines for more than 50 years at the rate of two million tonnes of finished ore every year. The hills around are full of ore and we are thinking of expanding operations in course of time."

*"What is the present production?"*



"Not much. Regular day-to-day mining is not done at present. We have begun operations only this year."

*"Is it because the mines are not yet ready for full operations?"*

"We have been ready with the mines and plant and machinery for the past one year. In fact, the crushing plant was erected in a record time of two years. But transport arrangements could not catch up with us."

*"Why, the DBK railway line, which is meant for carrying the iron ore to the port, has been completed long ago?"*

"The railway came in time. There was month-to-month co-ordination between the Railways and the project in building the railway line. But recently we had some trouble with it. There were two big landslides on the track which took months to clear. The first was cleared in April this year. Soon after, there was another during this monsoon."

*"But now the track is clear, you can go at full speed."*

"We cannot. Our biggest hurdle is inadequacy of port facilities. You might know we ship ore from Visakhapatnam. Additional loading capacity and equipment are being created at the port. Until they are ready, what is the use of our mining more ore than can be despatched with the existing facilities?"

*"How long will this continue?"*

"We are told that the port will

be ready in all respects by the end of March next. Till then we have to mark time."

*"Doesn't this delay upset the terms of our export contract? How does Japan take it?"*

"Japan understands our difficulties."

*"Have the States and other Government departments concerned with the project given you full co-operation in completing the project?"*

"Yes."

*"What were the main challenges you had to overcome in implementing the project?"*

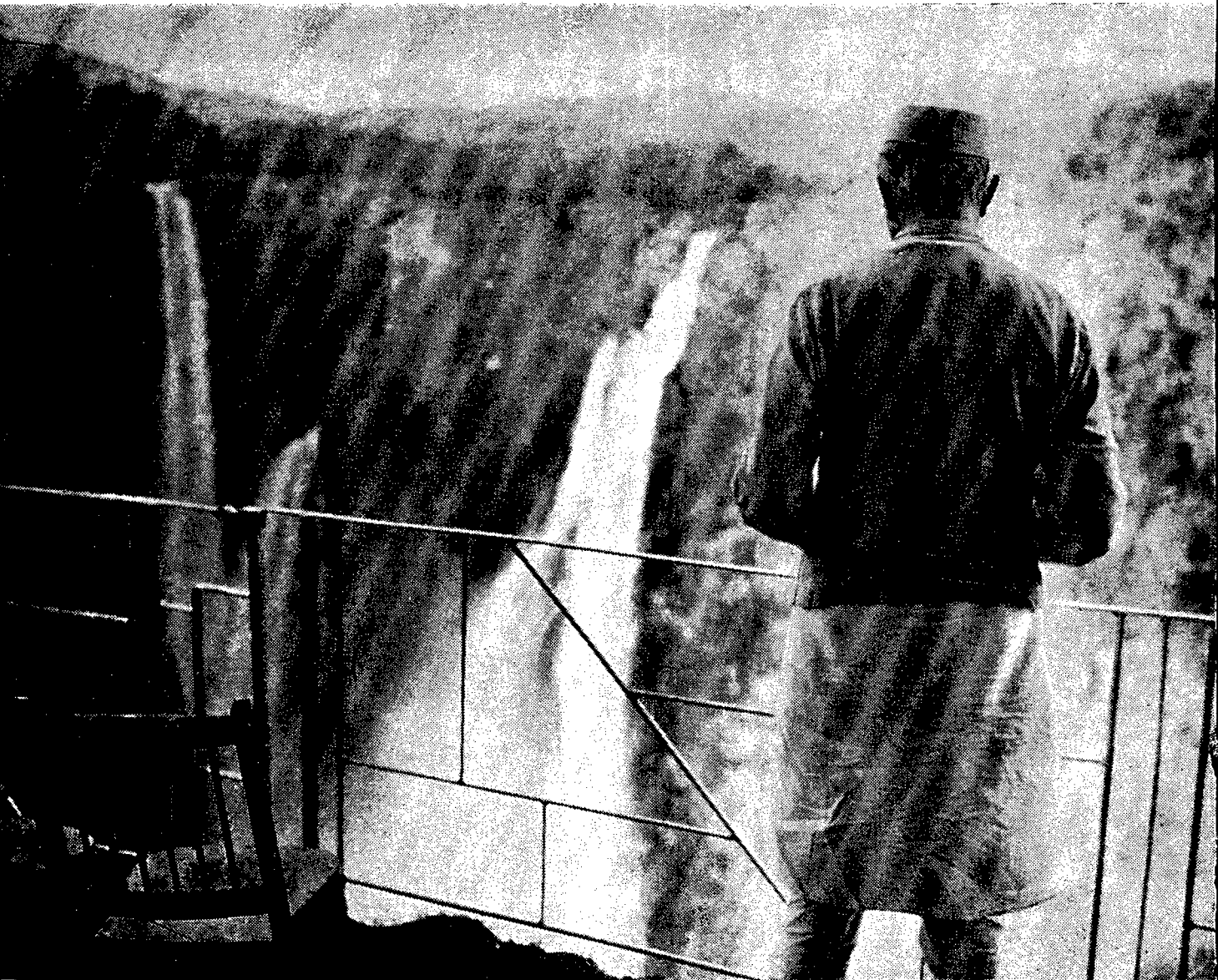
"Our difficulties were many; and some persist. It is all forest and hills where we work. We live far away from the civilised habitation. The nearest railhead—Barajamda—is 26 kilometres away. So you can well imagine our lot at the work site. The climate is malarial. The forest is still a haunt of tigers, panthers, elephants and bisons. Snakes and scorpions can be found under any stone you turn. For months I used to keep the legs of my cot immersed in bowls full of water. Two years ago when the streams were flooded, we were cut off completely from the outside world. Once, the nullah was in floods for two days and we had exhausted our provisions. But all this is nothing very special. It is the usual experience of mining engineers. By its very nature, any new mining project has to be generally situated in an uninhabited and undeveloped region."

*"What, in your opinion, are the special features of your project?"*

"First, we have the best laid-out plant in the country. All the construction, supervision and erection of machinery was done by our engineers under the guidance of the Japanese consultants. Most of the structural works were fabricated in our workshops reducing the cost considerably."

*"Does your project have scope for ancillaries?"*

"Yes. In fact we are already examining the possibility of putting up a pelletising plant at Kiriburu which could utilise the fines that will be created."



## THOUGHTS FOR NOVEMBER 14

**R**EPORTERS who accompanied the urn containing the Nehru ashes on June 7 noticed one interesting thing.

It was only until the special train left Ghaziabad, barely 19 kilometres out of the Capital, that the people shouted "Chacha Nehru Zindabad".

Beyond Ghaziabad it invariably was "Jawaharlal Nehru Zindabad", sometimes with the "Pandit" added.

Only in the closed-in, Mughal Delhi he was "Chacha": for the rest of the country he was Jawahar. Jawaharlal.

The word "Chacha" came up only in his last eight or ten years, more because of the custom of celebrating his birthday as Children's Day than as a badge of age. Even "Chacha" was a generation younger than his arithmetical age warranted.

No one knew Jawaharlal Nehru better than his master, Mahatma Gandhi.

In 1929 when, at his behest, Jawaharlal Nehru was elected Congress President, Mahatma Gandhi drew attention to the two qualities that Nehru had in abundance: drive and restraint; dash and wisdom.

"And with all his youthful impetuositities", the Mahatma wrote, "his sense of stern discipline and loyalty make him an inestimable comrade..."

"He is rash and impetuous, say some. ...He is undoubtedly an extremist, thinking far ahead of his surroundings. But he is humble and practical enough not to force the pace to breaking point..."

All these the Mahatma said in 1929. And a mere ten days before he was to be assassinated, the Mahatma was to say this of his "heir":

"It should gladden our hearts to note that this beautiful land of ours has produced such great men, endowed with such a wonderful spirit of service and self-sacrifice. Jawahar is a real *Jawahar*."

# YOJANA

**ECONOMISTS  
ON 4TH PLAN  
APPROACH**

No-23



**HIMACHAL TAKES TO NEW FARMING :** *7-page Feature*

NOVEMBER 22, 1964

EIGHTH YEAR **23**

25 PAISE

## ABOUT YOJANA

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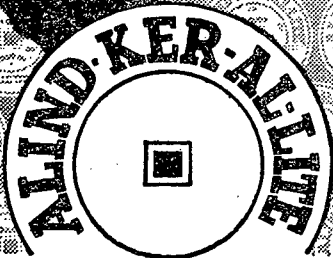
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in next issue	Prof P. R. Brahmananda
	Dr R. J. Chelliah
	Dr T. R. Srinivasan

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## HOW SHALL WE REMEMBER HIM ?

ONLY one per cent of our population is above 75 years of age; and the other 99 had never known a November 14 when Jawaharlal Nehru was not there. But two Saturdays ago he was the one man who was remembered and the one man who was missed everywhere in the country. They grieved for him, and felt glad that they had seen him and heard him and breathed the air he had breathed. They spoke and sang his eulogies, looked at a thousand pictures of him in newspapers and albums, thumbed the books which described his life and work, felt the coins that bore his likeness.

When the truly great die, grief crosses national frontiers, but the pain is soon healed by the oil of gratitude. That they had lived matters more than that time claimed them. Their very name becomes a benediction and their birthday a festival. Little wonder then that November 14 was a curious mixture of celebration and sorrow.

Jawaharlal Nehru led us, taught us, served us, ministered to us and is now gone. We who rode on his shoulders, how shall we remember him, and how shall we show that we deserved him?

November 14 was not without reminders of the tasks that Jawaharlal Nehru could not complete. In many towns and villages, men, women and children stood and waited in want of food. Here and there, anger led some people into rash action. If anyone hated want and indiscipline it was Jawaharlal Nehru. He hated poverty as much as he loved the poor. His own master's ambition was to wipe every tear from every eye. Gandhiji had said that food is the God of the poor. Nehru did not speak of God, but he spoke of food. There was a difference between master and pupil. Gandhiji idealised poverty itself. To Nehru poverty was a curse, a sin, a disease. He wanted all the people to have more of every good thing. And he believed that the way to have a better material life was through action, through work and strain. His attitude was not one of self-denial but one of affirmation. He rejected the idea of a fate that binds and subdues.

This will to work he wanted to be controlled by the rational mind. He was fond of saying that planning is but the application of reason to the economic tasks. He wanted the nation to adopt science, to employ the new technology and to move with the marching ranks of history.

If the millions who celebrated Jawaharlal Nehru's seventy-fifth birthday on November 14 also made a quiet

resolve to walk the way he showed us—thinking scientifically, feeling intensely, acting with boldness and restraint, and loving the people unmindful of the religion or race they might be born into—then we would have gone nearer to solving the problems still besetting us.

As a man Jawaharlal Nehru was complete. But he left his work unfinished. He would have completed it had he been vouchsafed a few more years of life. It is up to all of us to continue the work of building India, which he used to describe as a "wonderful adventure."

## Mettle For Metal

ALUMINIUM is so light and copper is so soft that it is hard to believe that 96 parts of aluminium mixed with four parts of copper, and properly heat-treated, will become three times tougher than steel. It is because scientists have ways of strengthening it that aluminium can be used in aircraft and stands tremendous stresses. By knowing the many secrets of metals, metallurgists perform a number of miracles.

As we modernise ourselves we become more and more of metal-eaters. Machines, motor cars, trains, ships, armaments and a myriad things we use are built of metals. To search for more metals within the country, to make our ores yield the best, to make alloys, to cast and to fabricate, to ensure the right quality, shape and specification for each minute use—our metallurgists do all this.

They have numerous achievements to their credit. Dr. D. P. Antia, President of the Indian Institute of Metals, has pointed out one of them—the making of uranium and zirconium from Indian raw materials, so that India today is one of the six or seven countries in the world to make their own atomic materials. No less notable is the contribution of our metallurgists to the growth of the steel industry. They are engaged in the valuable work of conserving our resources and finding substitutes for those materials in which we are short.

From last year we have begun observing a National Metallurgists' Day. Its purpose is to focus attention on the importance of metals, metallurgists and the metal industries in the building up of the nation. This year the Day was celebrated on November 13. Let our greetings go out to those men whose work builds our bone,

# FARMING HIGH UP

## *Himachal Learns from the Germans*

Report : Kali Biswas

Pictures : T. S. Nagarajan

UNTIL recently very few dreamt of eating vegetables in Mandi, one of the larger towns of Himachal Pradesh. The farmers of the place did not consider it worth their while to

### YOJANA

### STAFF

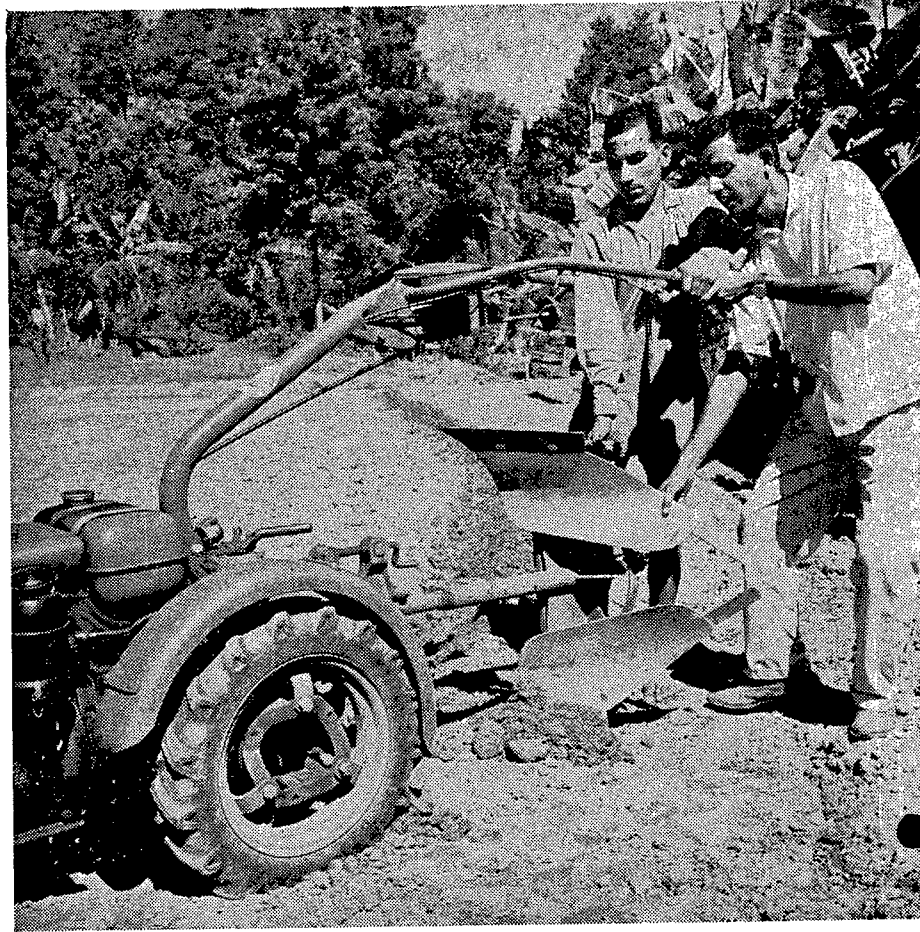
### FEATURE

grow vegetables and what little was sold came from Pathankot, two hundred kilometres away.

But now every morning a trailer-load of vegetables arrives in the Mandi bazar. The people have an unusual name for the vegetables: they call them 'German sabzi' the reason being that they are grown under German supervision.

German farming experts have not only introduced vegetable cultivation but many other scientific techniques in the region. They are doing this as part of the Indo-German Agricultural Project that was taken up in the Mandi district in 1963-64.

The origins of the project go back to the time Dr Heinrich Lübke, President of the Federal Republic of

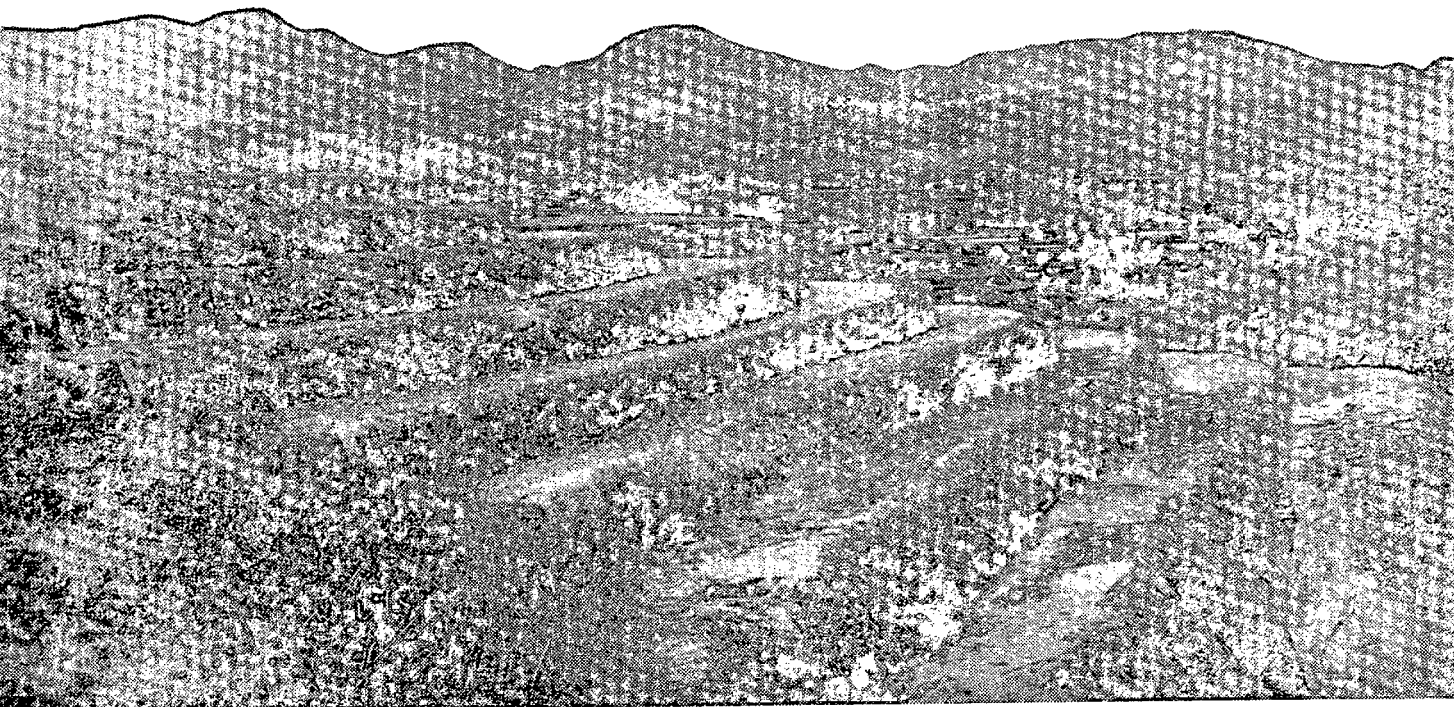


## NEW CROPS AND PRACTICES TO SUIT MOUNTAINS



Germany, visited India in 1959. The German Government then agreed to help improvement of agricultural production in a district by providing technical and material help. A German agricultural delegation came to India in 1960 and visited four of the eight districts recommended by the Government of India for the Project. After touring Kolaba in Maharashtra, Mandya in Mysore, Sambalpur in Orissa and Mandi, they picked

Dr. H. V. Huelst, leader of the German team (who is a farmer himself), showing a Himachal farmer how to use an improved plough.



Bench terraces made on what was a ravine before, at Naulekha. On facing page: Mr S. E. Ahmad, agricultural engineer, (right) demonstrating the use of a one-axle tractor to Sunku, a farmer.

the last. Points in favour: the agro-climatic conditions and local needs.

An agreement was signed on May 14, 1962, and the project was inaugurated on November 14, 1962, when the German Ambassador called on Mr Nehru and made a formal offer of the Rs 70 lakh Indo-German Agricultural Project as a birthday gift to him.

According to the terms, the Federal Republic of Germany provides technical advice, equipment and machinery over a five-year period. Improved livestock and equipment worth Rs 26 lakh have already arrived from Germany and seven German experts have been working in the district since 1962.

The Indo-German Agricultural Project thus follows the principles of the Intensive Agricultural District Programme (IADP) or Package Programme introduced in 17 selected districts of the country with the financial assistance from the Ford



Bags of improved wheat seed being taken by Pithuram (left) and Bisakhu of Bhangrotu from the Durga Co-operative Society.

Foundation and the Government of India.

The only difference is that, because of local conditions and the needs of the people, the Mandi project emphasises mixed farming.

## EMPHASIS ON HORTICULTURE

I VISITED Mandi in October to see for myself how the project was progressing. Mandi is one of the six districts of Himachal Pradesh, and its land lies at altitudes varying between 2,000 and 7,000 feet. It has a total area of 479,539 acres of which 200,463 acres are under cultivation. The principal crops are maize, wheat, paddy and pulses. Fruits are grown and now vegetables. The population of the district is 310,000 and the number of agricultural families is 50,000, with an average holding of 3.3 acres.

Mandi, the headquarters of the district, has the looks of a hill station, with pretty houses dotting the hill slopes. The place has to be reached from Pathankot, but the long journey is compensated by the delightful landscape that flanks the Kulu road. The road and paths meander; the outer ranges of the Himalayas are never wholly out of view; the trees grow tall, particularly the deodar and the *chir*. And one also gets a panoramic view of the Kangra valley (Punjab) which produces such beautiful things of art. The Beas river which passes through the town

has to be crossed through the Empress Bridge built in 1878. The town has some old temples and buildings marked by pagoda-type architecture. Like the Dussehra festival in Kulu 68 kilometres away, the biggest festival in Mandi is Shivratri when a big fair is held and the gods in their pomp and finery are carried in decorated palanquins.

## 65,000 FARM PLANS MADE

Accompanied by Dr B. S. Jogi, Project Director, I spent three days in the district. By the end of the period I had a taste of the difficult conditions under which the farmers work. Unlike the other Package Districts I have visited, Mandi offers little obvious scope for development. The district has a rainfall of 65 inches a year, but most of it flows away. Only 15 per cent of the cultivated area is irrigated by means of *kuhls* or channels running across the hill contours. The Indo-German project therefore lays stress on the development of horticulture, dairying and animal husbandry in addition to agriculture proper. Efforts are made to impress upon each farmer the importance of the use of fertilisers, improved seeds and latest tools.

Since the introduction of the programme last year as many as 35,000 farm production plans have been prepared. For the Kharif season this year more than 30,000 plans were made and 20,000 more were being prepared for the Rabi season. Good preparatory work was done last year by laying out 2,800 demonstrations. As a result of demonstrations the farmers have been convinced of the use of fertilisers and improved seeds. The average consumption of fertilisers, which was only 1.25 kg per acre before, rose to 10 kg or ten times, in 1963-64. It is expected to go up to 20 kg by the end of 1964-65. "We used the required quantity of fertilisers", said a farmer of Bodyal, a village near Mandi, "and got a yield four times more than what we got before." The crop cultivated is mainly hybrid maize (Ganga 101). According to Dr Jogi, the yield of maize per acre had already increased by 40 per cent.

Another strong point of the project is co-operatives. By the end of June 1964 the number of co-operative



Haru, proud of the *bhindi* grown by him.

societies had increased to 224 from 194, and the working capital to Rs 16 lakh. The loans advanced amounted to Rs 11 lakh as against a mere Rs 3 lakh granted before the introduction of the programme.

An example of how the farmers began realising the importance of co-operation was given by Mr Sher Singh, Secretary of the Durga Service Co-operative Society in Bhangrotu, a village in Sadar block, 12 kilometres from Mandi. The society was registered in 1948 with 19 members and a share capital of Rs 190. Now it has 326 members out of 456 families and a share capital of Rs 7,620.

I asked him what interest was charged and was told that the rate was 9.37 per cent a year, of which 6 per cent went to the bank. "Isn't that a high rate?" "It is. But so far we haven't received any complaints,"

(Continued on Page 14)

Khem Chand using an improved hand hoe in his ginger field. He has put seven bighas of land under vegetables.



*Like the builders of Taj Mahal we must conceive as  
giants and finish every bit as jewellers*

# how to get **The Best from Planning**

## **IMPORTANCE OF DETAILED STUDIES**

By

**ASOKA  
MEHTA**

*It is easy to draw up a plan in the aggregate; the real test lies in working out its minutest details. Step-by-step preparations and phased execution decide the size and quality of yields. Full consideration must be given to techno-economic factors, regional needs and conditions, capabilities of the people, their leaders and the administrators. More than all, planners must remember that time is the scarcest commodity.*

ECONOMIC planning is mainly concerned with the elaboration of a growth strategy that devises and directs the development process towards the quickest realisation of the objectives postulated. The effort is an essay in foresight. The concrete estimate of the strategy, however, becomes possible only after the event, with hindsight. It is the school of experience which improves and matures ideas about the dimensions, dynamics and interdependence of factors of growth, of the possibilities of choice between growth variants, of a lack of consistency, or even of contradiction, in the decisions reached, and of the time required to accomplish the process that has been set in motion.

Fortunately, we are at the midpoint in our growth strategy where considerable experience has been gathered over two Plans, and where, for a further two Plans, the critical part of the strategy has still to be worked out. This, then, is the moment of scrutiny, all the more necessary because we have reached the decisive stage in the growth strategy, where a marked increase in investments, and consequently, in the accumulation rate is indicated.

The growth strategy is related to the broad objectives of our endeavours. The objectives, in my view, do not evoke great dispute, or even differences. They focus attention on providing employment opportunities to all who seek them, and a steady improvement in skills and techniques to augment earnings. Such an approach to employment ensures a minimum level of living to all—a level that would steadily rise with every refinement in skills and tools, and where the disparities in income and wealth get steadily eroded. These

changes imply considerable and continuous educational advances, as also changes in the occupational and production structure of the economy. A change in production-structure vastly increases the *import sensitivity* of economy. The improvement in techniques, and the resulting changes in tools, demand ever rising imports. That problem can only be overcome in one way—by undertaking the fabrication of new tools, that is, by a programme of import substitution.

Employment opportunities and rising levels of living depend upon the break-up of economic stagnation and the release of dynamism. This dynamism, in fact, is the propulsion of technological changes within the traditional economy—such a propulsion cannot be achieved and sustained except through increasingly sophisticated efforts at machine-building and other import substituting devices.

### The Perspective

WE talk of plans of development and that does imply a certain periodicity. Sound planning would include plans of different duration drawn up for different, yet inter-related, purposes. Broadly, there are three kinds of activities we are concerned with. First, agricultural production. This should include a great number of schemes that mature quickly, that yield output in two years or so for the investments made. The cycle is short. Good planning should work to achieve such a quick rhythm of investment increment and output improvement.

Secondly, activities in industry, modern transport and power take longer periods to show a return; five to seven years are needed for completing the construction of specific

projects and, as it were, building up steam. That cycle of maturation determines the periodicity of the medium-term plans. As development plans include schemes, programmes and projects of both kinds, their span is generally of between five to seven years. Within a medium-term plan, it is necessary to strike a proper balance between short-term or quickly maturing schemes, and programmes with a longer gestation period.

Finally, where a backward country has to be pulled into the full focus of development, a longer-term plan is needed. The various forces inducing growth identify themselves and discover their roles only in the chronological-cum-logical pattern of a perspective plan covering a period of 15 to 20 years. The carrying through of *structural changes*, where old relationships yield their place to new ones, takes considerable time. The full implications of a growth strategy are perceived, even conceived of, only in terms of a long-range plan. These plans of different duration are not unrelated, they have to be wrought together, only then one can expect to achieve the dimensions, proportions and the step-by-step results desired.

In our country the magic phrase "Five Year Plan" has tended to over-emphasise the medium-term aspect of planning, and grossly underrate the short-term plans and efforts implicit in them. Likewise, the perspective plan is given a somewhat casual recognition. Its thrust towards structural transformation, its unfolding of the logic, that is, the essence and implications of fundamentally altering the occupational and production structure of the economy, fail to get the needed attention. Looking just at medium-term planning there is the tendency to consider investment meant to build or expand production capacity, while neglecting complementary and accessory investments.

The latter investments primarily raise productivity, not production capacity. Perspective planning can provide meaning and rationale to the production of equipment, often not up to date and yet costly, as a stage to be gone through before reaching sophistication in fabrication. To learn to produce, to design

and construct new equipment is to enter the *sanctum sanctorum* of industrialisation, and that requires a preliminary stage of amateurish apprenticeship.

Unless one grasps the full import of the arch that is to span undevelopedness with development, the thrill of engineering it, which is among the great rewards and enriching elements of growth, is likely to be missed. Without that, planning ceases to be an adventure in achievement and becomes an irksome task.

The fetters on growth do not fall off, the bottlenecks do not break, except through a considerable period of effort. A perspective plan indicates how the unavoidable detriment that growth causes to balance gets corrected, or how the sharp increase in the rate of investment and saving demanded by the intensive phase of growth later tends to flatten out; or how qualitative improvements follow in the wake of quantitative achievements. Planning viewed in smaller segments is apt to seem intractable, even frustrating.

The longer-term envisioning of growth does not mean that the immediate tasks can be neglected. They are vital and crucial. What I am pleading for is that planning has to have the same discipline that, according to Vincent Smith, the builders of the Taj Mahal evinced: to conceive as giants, but finish every bit as jewellers!

### Role of Agriculture

THE pressure of price rise will be contained in so far as the Plan is wisely devised and efficiently implemented. The needs of the economy, the urgency of expanding job opportunities and of raising incomes requires that certain risks be taken in development. The risks of growth are preferable to the threats of stagnation. This means a large plan has to be envisaged. If agricultural and other quickly maturing programmes are not properly attended to, price distortions cannot be avoided. The size of the plan, therefore, gets determined by the performance possibilities in agriculture. There are other determinants also. If the streams of income generated just balance food supplies, price rises will occur.

The danger can be averted to the extent one is able to set up a com-

petent food administration, with the essential controls and rationed distribution, and further, in so far as one is able to hold down the propensity to increase inventories and commodity balances of other kinds. In short, a serious effort to impart dynamism to the economy and to satisfy the bare needs of the people straight away throws onerous responsibilities on the administration. Slack administration and lifting the hurting burdens from the people cannot go together.

### Use of Resources

ECONOMIC development and, more so, planning have to take account of the *material-technical* basis available. Lack of development means that the material resources are not fully identified and the technical competence to utilise what is available is poor. This kind of weakness is less in the emerging industrial sector, because there the modern technology provides, as it were, its built-in facilities. The weaknesses are greatest in what one might term the *diffused sector*, that of agriculture and handicrafts. In agriculture, traditional methods yield limited results and involve heavy wastage. It has been calculated that in food preservation and processing our current losses are as much as Rs 1,400 crore a year! Even in modern organised industries, the non-availability of raw materials can prove to be a serious constraint. Minerals may have to be located; agricultural raw materials diligently improved. Thus, industry would need to develop a *backward linkage* with agriculture, if its progress is not to be slowed down.

The ability to adequately utilise the material-technical resources depends upon *techno-administrative* efforts. The administration has constantly to identify obstacles to development and also discover growth potential in various regions and spheres of the economy and devise measures that would remove the obstacles and foster the potential. It is easy to draw up a plan in the aggregate; the real test lies in working out its minutest details. These details are neither given nor apparent straight away. In the plan-frame developed for the country, any one State will have its own distinctive growth possibilities and rate of actuation.  
(Continued on Page 18)

# BOLD PLAN, YES, BUT PROBLEM IS of ORGANISATION

A.K. DAS GUPTA

*Indian School of International Studies, New Delhi*

THE Memorandum on the Fourth Plan proposes for the five-year period—1966-67 to 1970-71—an aggregate investment of Rs 19,975 crore and anticipates a (compound) growth rate of  $6\frac{1}{2}$  per cent per year, thus bringing the national income from about Rs 19,000 crore, as it is estimated to be in 1965-66, to about Rs 26,400 crore in 1970-71—both at 1963-64 prices. These figures yield a capital output ratio of 2.7:1 and, on the assumption of a uniform growth over the period, a marginal investment (or saving) rate of 18 per cent. The system thus permits an annual growth of consumption goods of 4.8 per cent and, on the assumption of a population growth of, say, 2.5 per cent, an annual growth of per capita consumption of 2.3 per cent.

As compared to the Third Plan, the sectoral distribution of investment has tilted a little in favour of agriculture and fairly substantially in favour of education and scientific research on the one hand, and health and housing and construction on the other. The investment allotted to power and transport and communication is relatively less than in the Third Plan. The emphasis on industry, particularly heavy industries, remains as before.

The relative expansion in public sector investment continues. Its ratio to total investment now moves to 65 per cent as against 60 per cent, as it was in the Third Plan estimate. The financing of investment in the public sector by and large follows the Third Plan pattern, although somewhat less credit relative to the total is taken for foreign assistance and, as it appears, somewhat larger reliance is placed on profits of public enterprise. Deficit financing is eschewed, except to the extent needed for meeting the growing demand for money arising out of growth of production and increase in the monetisation of the economy thus ensuring stability in the price level.

An improvement in the employment situation is also envisaged over the Third Plan estimate; it is expected that the investment proposed will create employment opportunities for 20-21 million persons as against an estimated addition to the labour force of the order of 23 million. If therefore the normal investment activities in the economy are supplemented by a programme of rural public works, the employment potential in the Fourth Plan should, it is contended, come nearer to the addition to labour force than ever before.

*We regret that the article by Dr. P.S. Lokanathan could not go on this page. It will, however, be published in our next issue. The article scheduled for Page 8 has been shifted to this page—Editor.*



All this looks quite impressive. The aggregate investment proposed is nearly double that estimated for the Third Plan, even after allowance is made for the small increase in costs of investment that may have taken place in the meantime, and the growth rate envisaged is also about double the rate that has been realised over the past years. The rate of growth of per capita consumption allowed for is higher than ever, and the employment potential to be created broadly satisfies the criterion that the Planning Commission has had in view since the beginning of the Second Plan, namely to prevent accumulation of the back-log of unemployed.

## Decentralised Leadership

THOSE of us who had pleaded for a bold Plan last time should now feel satisfied. For after all, even though the targets are still below the levels sought by the Perspective Planning Division in terms of a certain minimum for the near-lowest income group in the economy, the Plan, as it is shown in the Memorandum, is a bold one. But perhaps I am a difficult person to please. For, in spite of the acknowledgement in the proposed Plan of the urgency of measures to make a big Plan effective, which I would admire, my thoughts this time go over to the organisational lapses that caused damage to our earlier Plans and I grow pessimistic. For these lapses now seem to me to be inherent in our social structure not amenable to quick treatment.

The formulation of plans has by now become more or less a stereotyped affair. Indeed there is very little in the objectives and strategy of the Plan, suggested in the Memorandum, with which one can find fault. Nor would one dare to put forward an alternative allocational scheme. Indeed, for myself, I welcome the shift of emphasis that the Memorandum suggests towards agriculture and minor irrigation on the one hand and social services on the other, even though it is at the expense of power and transport—those overheads concerning which one would rather recommend more economical utilisation in future. The real limitation from which the economy has been suffering—the limitation that has been responsible for the persistence of a gap between our targets and achievements—is that we have failed to build up a structure of *decentralised leadership*. The economy has indeed shown a fair degree of success in big projects—major irrigation schemes on the one hand and the machine tools industry on the other. These are activities where direction and supervision are concentrated and which thus require a small number of highly skilled technicians. We do have them—if not enough to meet our growing demand, at least more than one would normally expect from an

*march together*  
*•work together*

 *Let people in different parts of the country, however strong their feelings might be on particular issues, never forget that they are Indians first, and that all differences must be resolved within the unalterable framework of one nation and one country. Let us make every endeavour to foster this feeling of oneness and to carry forward the work of national integration.* 

—Lal Bahadur Shastri  
Prime Minister

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Our way is straight and clear—to build a strong India with freedom and prosperity for all.

Let us march together, work together as one nation, imbued with courage and determination, goodwill and tolerance.

---

**J A I H I N D**

**PRESERVE UNITY. PROTECT FREEDOM**

DA 64/F7

underdeveloped country. And in so far as there is any deficiency, we could import them from abroad, as we have often been doing.

When, however, it comes to activities which are scattered and which consist of small units located in rural areas—and these are the activities which control aggregate output in a big way—we have failed. We have failed in agriculture, and to a moderate extent we are failing in small industries, too.

### The Bottleneck in Farming

OUR failure in agriculture cannot certainly be attributed to deficiencies in investment allotment to irrigation or to fertilisers. Nor can the responsibility be thrown just on price policy, inappropriate as it may often have been. Perhaps natural calamities have also been made a little too much of in this context—after all India is a vast country and one would surely expect a certain random distribution of bad and good weather over the various regions in the country. Indeed one finds it difficult not to believe that agriculture in India does suffer from a certain lack of co-ordination and guidance in respect of the use of different types of factors that add to the productivity of the soil. How else indeed could one explain, in the face of all the investments towards irrigation, fertilisers, insecticides, improved seeds etc., such stagnant output in the agricultural sector as we have experienced over a large part of the Plan period?

The real bottleneck in agriculture in our country is entrepreneurship—an urge to make cultivation a business proposition. And in so far as large-scale operation has limited scope in this sector, there is need for a general spread of entrepreneurship all over the country, which is what I would call 'decentralised leadership.' The leadership has to emerge from within, but Government administration can help the process; one of the objects of planning is indeed to create circumstances in which the process gets going. Hitherto nothing much has been done in this direction, in spite of the so-called Community Development projects.

### Spread of Industries

IT is reassuring that the Memorandum stresses the importance of spreading industries as far as possible over the country so as to create a link between rural areas and industrial centres. For it is thus that an exodus from the cities to the country may be started and a certain spirit of enterprise created in areas on whose progress the prosperity of the nation largely depends. One must consider the efficiency of rural public works programmes, too, in this context, no less than in the context of employment, important as the latter is.

The proposal for decentralisation of industries is indeed one of the significant features of the Fourth Plan Memorandum. One must remember, however, that the process has to be initiated by the State, even though the industries dispersed may be such as would otherwise be left to private enterprise. The economies of localisation will have to be sacrificed, so that the profits of individual firms will perhaps be less than they might be. Yet the loss, it is expected, will be outweighed, in the long run, though not in the short, by benefits arising out of the spread of business education and enterprise.

### "Quick-Yield" Approach

IT should be obvious that a considerable organisational shake-up is needed if the targets formulated in the Fourth Plan Memorandum have to be achieved. Having regard to our past experience, one does suspect that the Memorandum accepts the targets a little too readily. Never before has our agricultural output exhibited a rate of growth of more than  $3\frac{1}{2}$  per cent per year. Yet, in this very sector, on whose performance hangs the entire Plan structure, the rate of growth assured is as high as 5 per cent per year. The industries sector will perhaps go a long way, although even there the growth targets set—11 per cent in organised industry and 8 per cent in small industry—sound a bit too high. Much will depend upon the availability of raw materials; no fundamental organisational change is involved there, except that one would define capacity in terms of multiple-shift system rather than in terms of a single-shift system. One does feel that it is this aspect of the application of resources—that of making most of the existing capacity—that the Memorandum should have emphasised, rather than, as it does, the need for "quick-yielding investments." Surely it is odd of the Planning Commission at this time of the day to be looking for quick-yielding investments when the system is yet to utilise the excess capacity in various fields which past investments have yielded.

### 'Rate' of Return

ONE last comment of a rather more specific character on a matter which has appeared puzzling to me. Speaking of profits of public enterprises as a source of finance, the Memorandum suggests that "A return of 12 per cent on the invested capital would be an appropriate criterion for determining the price policy of most public undertakings." (p. 21, para 7). The argument is a familiar one, namely that "capital is a scarce resource" and must yield a return which is warranted by the degree of its scarcity. While I realise that the price policy of our public enterprises has not always been rational, partly no doubt owing to the inspiration derived from old principles of public finance but partly also perhaps under pressure from private business interests, I find it difficult to understand the Memorandum's prescription concerning the relation of price policy to the "rate of return." For, if the prescription refers to past investments, or rather to the capital stock already existing, then the *rate* of return becomes an ambiguous concept without much significance. Here what is relevant is the *aggregate* return, for it is this that one would have enlarged if one's interest were solely in public revenue. On the other hand, if the prescription refers to new investments where the rate of return on costs is significant from the point of the determination of the investment structure as such, the problem turns out to be one of the investment policy rather than of price policy. The proposition that is relevant here seems to be this that, having regard to price expectations, investment in any public enterprise should be so adjusted as to yield a rate of return of, say, 12 per cent, if that is what the degree of scarcity of capital justifies. One hopes that the Planning Commission will give a little more thought to the matter.

# NOT SPECIFIC ENOUGH

ONE may assume that the purpose of a preliminary memorandum on a Five-Year Plan would be to :

- (i) indicate the over-all framework of the Plan ;
- (ii) provide guide-lines of work and advance action for various agencies involved in the Plan effort ; and
- (iii) recommend the main changes in policies, institutions and organisations that have to be brought about for the effective implementation of the Plan.

One may judge the Memorandum by examining whether it fulfils these functions adequately.

The over-all framework of the Fourth Plan suggests a continuation of the strategy adopted in 1956. This strategy being basically a sound one, it is only proper that no major departure from it is intended. The only major modification, reiterated at a number of places in the Memorandum, is that priority may be given to projects and programmes of a quick-yielding nature. It is difficult to understand the reasons for this emphasis in a Fourth Five Year Plan. In any given Plan period, incomes would be accruing from investments made in the previous Plan period; and the investment projects may have different gestation periods—short, medium and long. The choice of investment projects will have to be on the basis of material balances, technical feasibility and cost analysis. Choosing some projects merely because they are quick-yielding can seriously distort the Plan.

Moreover, one would assume that the possibilities of utilising quick-maturing schemes would, by and large, have been exhausted by this time. The main fields in which this

may be now possible would be areas where new scientific or technological discoveries have created possibilities for new types of quick-yielding programmes; but there is no indication in the Memorandum that any such projects or ideas have been identified for the purpose of enunciating this policy emphasis.

## Planning Has to be more Purposeful and Operational

IT appears that the main point at issue in the prolonged discussions about the over-all framework has been the size of the proposed Plan. The reason for not accepting the Perspective Planning Division's suggestion of a Rs 24,000-crore Plan seems to have been not so much that it was technically and physically not possible—there could be no quarrel with such an objection if it was properly supported—but that it would not be possible to raise adequate financial resources for such an outlay. While one would agree that the scope for deficit financing is bound to be very limited in the next Plan, adequate reasons have not been provided to indicate why mobilisation of resources adequate for a 24,000-crore Plan would not be possible. The Managing Director of the I.M.F. who cannot be suspected of being radical in such matters, was reported recently to have said that increasing the revenues of the State to 20 per cent of national

income should not be considered to be an unreasonable objective even in underdeveloped countries. One wonders why the Planning Commission could not accept this line of reasoning.

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IT is curious that the Memorandum does not mention the main objective of the Plan in concrete terms. The Chapter "Objective and Strategy" begins with mentioning the basic objective for the 15-year period commencing from the Third Plan and says that one of these is "to ensure a minimum level of living to every family in the country". But at no point does it spell out what this means in concrete terms. The hesitation in indicating what the Plan as outlined in the Memorandum could lead to by 1975-76 is indicated by the following sentence :

"While the perspective up to 1975-76 may require some revision in the light of past experience, there can be no resiling from the commitments regarding employment and living standards set for attainment by the middle of the next decade."

What exactly this means can be anyone's guess. The Memorandum suggests no bold departure in the direction of socialist objectives; even the word "Socialism", as far as one can see, occurs only once (p. 7, para 19) and that also not in a clear-cut context. The approach to distributional changes is indicated by the fact that the Commission expects only that "the better-off sections of the community will have to accept *smaller increases* in income and consumption" (italics ours). On the other hand, in the only field in which the Indian Constitution made a commitment to provide a concrete benefit to every citizen (as a citizen), i.e. primary education, the Commission has conceded that "the Constitutional obligation of providing universal elementary education for all children" cannot be achieved even during the Fourth Plan.

As regards the exact allocation of resources among different sectors and the material balances, it is difficult for an outside observer to judge these and one has to assume that they are properly worked out. One instance may be given, however, which raises some doubt. It is curious that while over-all investment and outlay and

the investment in Housing and Construction in the Commission's Memorandum are all smaller than those indicated in the Perspective Planning Division's memorandum, and most of the physical targets are either the same or smaller, the physical targets of cement machinery and cement are placed in the Memorandum at figures higher than those in the Perspective Planning memorandum.

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THE Planning Commission had indicated at the time of formulating the Third Five Year Plan that an overall plan of development covering the period up to the end of the Fifth Plan would be prepared by 1964 (*Third Five-Year Plan*, page 30). Except for the Perspective Planning Division's memorandum, no such overall plan has yet been prepared. The Commission's Memorandum now again states that "it is hoped to present the Fourth Plan as a plan in outline covering the ten years from 1965-66 to 1975-76 and in detail the period up to 1970-71."

The proposals in regard to different functions and sectors are presented in too general terms for any systematic examination of them. This is probably inevitable in a Memorandum of this kind. But it is surprising that the Memorandum is not even specific about the major policy changes that are considered to be necessary for pushing through a plan of the magnitude suggested. In many cases the policy recommendations are hardly an improvement on what was more elaborately stated in the Third Plan document and there is no indication as to where exactly the policies suggested earlier have gone wrong and, therefore, specific changes are now necessary. One would expect that at least in such matters, specific recommendations would be suggested. Favourable political climate and public opinion may have to be created for such policy changes and this can only be done if the recommendations about such changes are in specific terms.

Thus, regarding mobilisation of financial resources, the usual range of measures like additional taxation, larger contributions from the public sector, restriction of non-development expenditure and step-up in small savings etc. have been mentioned. One wonders, however,

whether any more definite and concrete proposals have been worked out in these matters. For example, as regards contributions from public sector undertakings, the only concrete proposal mentioned is in regard to electricity supply undertakings. Even in areas where there can hardly be any question of disincentives arising from taxation, such as urban property, all that the Memorandum stresses is that the "possibility of further taxation of increments in the value of urban property deserves serious consideration".

On a subject like land reforms, a policy decided upon and adopted right from the beginning of our planning, the analysis of the problem as well as the recommendations made show no improvement over whatever was said in the Third Plan. There is no indication of what the Commission proposes to do and expects other authorities to do to ensure that the policies decided upon long back are effectively implemented. The Commission's hesitant approach in this respect is perhaps best indicated by the fact that an expert report on the subject, said to be critical of State Governments, remains unpublished.

Take the Chapter on Administration and Plan Implementation. The key areas where deficiencies are observed are indicated and the general lines of remedial action suggested. But there is hardly any recommendation which is significantly different from what already mentioned in the Third Plan. In many matters, understanding and approach seem to remain where they were in 1961. For example, the Third Plan stressed the necessity for States "to consider the lines along which the existing arrangements and machinery for planning at the State level should be further strengthened in the light of the complexity of the planning tasks both for the Third Plan and for the proposed long-term Plan. The Fourth Plan Memorandum now suggests that "in view of the much larger scale of development envisaged in the Fourth Plan and the more difficult tasks that lie ahead, it may be useful for the National Development Council to consider the setting up of a Committee of Chief Ministers to undertake a careful review of objectives, methods and machinery for planning in the States"! Incidentally, the N.D.C. does not seem

to have taken note of this recommendation.

It would therefore not be unfair to say that the Memorandum on the Fourth Plan does not adequately satisfy the tests indicated earlier. While the basic framework is satisfactory in that the direction, strategy and tempo of the previous development plans are sought to be maintained, the Memorandum does not provide an indication of a more purposeful, operational, and refined approach to planning than in the past. It does not provide an assurance that project and programme planning would be more efficient than heretofore. Its guide-lines for changes in policies and institutional instruments are blurred, hesitant and repetitive. It does not provide stimulus and challenge to purposeful thinking and action.

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## Yojana Bhavan Diary

Professor V.K.R.V. Rao, Member, Planning Commission, left for Kampala on a 12-day visit on November 9 on an invitation by the Uganda Government to advise the country on its development plans.

Mr B.R. Bhagat, Minister of Planning, left for Moscow on November 10. He met Soviet officials and had talks on further Indo-Soviet co-operation. From Moscow he went to London to attend the Colombo Plan Conference from November 16 to 21.

Mr J.M. Kitchlu has been appointed Secretary, Committee on Plan Projects (COPP). He will also work as Chief, Management and Administration Division, COPP. Until recently he was Deputy Secretary, Planning Commission.

Dr A.C. Ray has taken over as Director, Scientific Research Division. Until recently he was Under Secretary in the Ministry of Transport.

Dr M.L. Gupta, Assistant Chief, Labour and Employment Division, and Mr Baldev Dutta, Assistant Chief, Economic Division, have left the Planning Commission. Dr Gupta has been appointed Assistant Economic Adviser, Ministry of Labour and Employment. Mr Dutta has joined as Director of Research and Statistics, Company Law Board, Ministry of Finance.

**ECONOMISTS ANALYSE  
MEMORANDUM**

## *Employment Goal Not High Enough*

# Timely Completion of Projects Holds Key

**T**HERE can be hardly any serious disagreement with the over-all objectives and the broad strategy of the Fourth Plan as set out in the Planning Commission's recent Memorandum to the National Development Council. Undoubtedly, there has to be a significant progressive increase in the rate of capital formation so as to add steadily to the flow of output and employment opportunities commensurate with the needs of our fast growing population. However, an excessive preoccupation with the over-all investment content of the Plan may sometimes serve to relegate to the background some other equally important issues of policy. For example, I feel that the exercise of an adequate degree of care in the timely initiation and completion of certain strategic projects will exert a far greater influence on the rate of growth of our economy than a change either way of a few hundred crores of rupees in total planned outlay.

The Memorandum serves to highlight several important instances where the actual performance during the Third Plan period is likely to fall short of the original targets. That a failure to achieve the planned targets in a vital sector of the economy could have disproportionate and cumulatively adverse effects on the economic health of the nation should be obvious from our experience in agriculture. As is well known, the stagnation of agricultural output during the last three years is in no small measure due to an inadequate supply of such important material inputs as fertilisers. Of course, in so far as a project has an import content which has to be financed

**MAN MOHAN SINGH**

*Punjab University*

through foreign aid, the uncertainty surrounding the likely magnitude and the timely availability of aid will no doubt hamper an orderly execution of such a project. But it is to be greatly hoped that, within limits that are feasible, greater attention than in the past will be given to a timely initiation and completion of projects producing 'bottleneck' goods.

As regards the pattern of investment, the continued emphasis on the development of investment goods industries is eminently justified. Given a highly unfavourable outlook for our traditional exports, such an emphasis is absolutely necessary if the economy is to become self-sustained at an early date. Simultaneously, the need for continuous advance in agriculture and further expansion of social overheads is equally obvious. However, one cannot make out from the Memorandum whether or not the various sectoral targets are consistent with one another. The Planning Commission has set a target of Rs. 5,100 crore worth of exports during the Fourth Plan. It is to be hoped that while laying down targets of production for various industries, export needs will be fully kept in mind and that export targets will be integrated with the plans for production and domestic absorption of the output of such industries.

**W**HILE the Plan lays considerable emphasis on the need for generating additional employment opportunities, the targets now proposed for additional employment opportunities during the Fourth Plan are greatly disappointing in so far as the new employment opportunities would not suffice even to absorb fully the new entrants to the labour force during the Fourth Plan period. This means that the large back-log of unemployment accumulated during the first three Plans (estimated at about 12 million persons) together with chronic under-employment in agriculture will remain substantially intact during the Fourth Plan.

The employment targets now proposed for the Fourth Plan can hardly be reconciled with another major objective of economic policy i.e. that of ensuring a minimum standard of living to every family by 1975. The achievement of this latter objective would require an effort at redistributing incomes in favour of the weaker sections of the community on a scale which is hardly likely to be attained through traditional fiscal instruments of taxation and subsidies. In the Indian context, the most practical approach for ensuring a minimum standard of living to every family is to provide employment opportunities to all those who seek employment.

Besides, the concern with regard to employment is justified not exclusively on grounds of income distribution. In fact if we are really serious about the development of 'intermediate technology' higher employment goals would not only redistribute income along socially desirable lines but would also contribute to an acceleration of our rate of economic growth by enabling us to take a greater advantage than in the past of our underlying factor endowment.

**I**N the Memorandum there is a great deal of emphasis on the necessity of transforming our subsistence agriculture into a scientific agriculture. Yet its implications are not fully spelt out. The adoption of scientific techniques by peasants is

greatly dependent on their ability to understand the working and uses of modern implements and inputs.

This in turn requires that peasants should be able to read and write, for there is a limit to an effective use of oral methods of mass communication. But in the Memorandum there is no mention of a crash programme for a speedy elimination of mass illiteracy in rural areas. What is still more unfortunate is that the Constitutional obligation to provide universal elementary education for all children will be further postponed beyond the Fourth Plan. With this background, hopes of transforming traditional agriculture into a scientific enterprise and expecting villagers to formulate village plans for an optimal use of their resources will be unlikely to materialise.

In the sphere of agriculture one can only hope that the Planning Commission will be able to persuade the State Governments to implement speedily the land reform legislation so as to ensure for all tenants, formal and informal, security of tenure and reasonable rents. Unfortunately, the progress on this front has been extremely disappointing. In November 1963 the National Development Council had called upon all State Governments to complete the implementation of land reform programmes before the end of the Third Plan. Not unexpectedly, as the Memorandum points out, many States have come forward with the difficulties encountered in giving effect to the programme of land reforms. The Planning Commission and the Central Government will, therefore, need to exert their utmost influence in bringing the recalcitrant States line with agreed national policies.

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FINALLY, there is the problem of regional disparities in the level of development which, if allowed to grow, may have serious social and political consequences. Of course, the planners are conscious of this problem and the Memorandum does mention the need for developing backward areas. However, I should not be surprised if at the end of the Fourth Plan regional disparities are much more serious than at present. For example, it is mentioned in the Memorandum that "for achieving substantial increases in agricultural

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**ECONOMISTS ANALYSE  
MEMORANDUM**

## Hardly an Economic Exercise

I AM afraid one has to speak out, and harshly: those who are at the helm of our planning continue to be innocents abroad. The Memorandum on the Fourth Plan makes frightening reading, for it is just another of those drafts which mean all things to all men; it is as if the bitter lessons of the last few months have left no mark whatsoever.

The Memorandum is hardly an economic exercise, for it contains

little in terms of enunciation of specific choices and specific costs. A lot of verbiage is spent on commiserating with 'the common man', who 'must get adequate return for his labour and full value for this money'. Alongside of this outbreak of clichés, we are treated to the following breath-taking listing of priorities in Chapter VIII:

The essential priorities in determining the size and distribution of outlays in the Fourth Plan are a substantial improvement in

*(Continued on Page 21)*

production special emphasis will have to be laid on intensifying agricultural programmes to the maximum extent possible in areas with irrigation and assured rainfall where there are fair prospects of achieving rapid increase in production." Since irrigation facilities are not evenly distributed among various regions, this strategy will further intensify regional disparities. This of course should not be taken to mean that such a strategy is unsound or undesirable. By pointing out its consequences in terms of regional disparities, my purpose is to emphasise the need for compensatory action to prevent such inequalities from widening.

As regards industry, modern industry displays a strong tendency towards agglomeration. Even the small-scale agro-industries (on which so much emphasis is now being laid for the transformation of our rural economy) are likely to flourish best in areas that exhibit a relatively higher level of agricultural development. The attraction of these areas for the development of agro-industries rests on their capacity to provide both an assured supply of basic agricultural

raw materials and an expanding local demand for the products of such industries. Economic processes, left to themselves, may therefore further aggravate the problem of regional disparities for in matters of growth the Biblical saying "To him that hath shall be given" has, unfortunately, a wide applicability. As pointed out above, this does not mean that the proposed strategy for agricultural development is unsound or that it would be better to spread investment in industry more thinly all over the country. It may well be that emphasis on the development of education (including technical education) and the provision of social overheads like means of transport and communication would contribute more to the development of an area than the location in it of a few industrial projects.

The problem of different regions are unlikely to admit of a single, uniform solution applicable to all the regions. What is therefore needed is a greater awareness of the problems of the lagging regions. An attempt to integrate them fully in the mainstream of national economic life should form an essential part of our planning strategy.

# MANDI TAKES TO MIXED

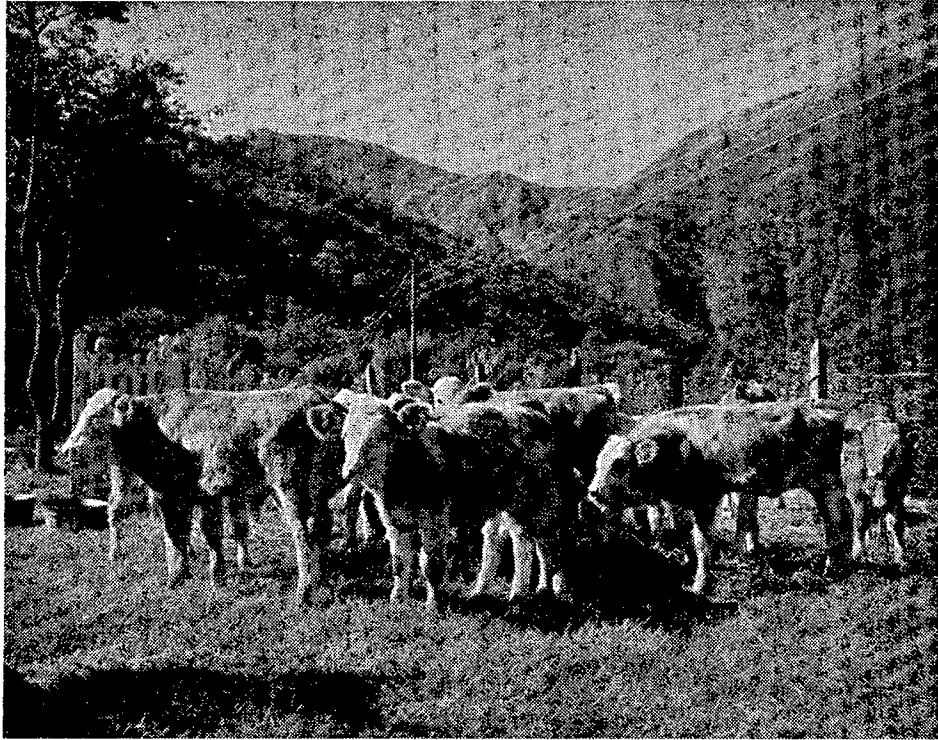
(Continued from Page 4)

said Mr Lachhman Das, another member of the society. "After all, a money-lender charges as high as 19 per cent per annum."

The society, I was told, granted credit of Rs 12,216 in 1963-64 of which Rs 8,000 were in kind. The society has built its own building and started a piggery unit.

## VEGETABLES GROWN

THE most impressive visible change, as I said, is the growing of vegetables. Demand for vegetables in the region has increased recently because of the new townships being built at Pandoh in connection with the work of the Beas-Sutlej project (see *Yojana* August 30) and the border roads project. As many as 4,000 acres have been placed under potato. During this year's Kharif season, 73 tonnes of improved seeds were distributed and 178 tonnes of improved seeds will be procured by the District Co-operative Marketing and Supply Federation when the present crop is harvested.



The farmers are being provided with improved tools and technical assistance to grow more vegetables. Last year 1,075 kg of different kinds of vegetable seeds were distributed among the farmers and in the current Kharif season, 800 kg of various seeds have also been supplied. So far 35 acres have been brought under commercial vegetable cultivation in selected places of Mandi, Nagwain, Gutkar, Chhatar and Joginder Nagar.

I met Khem Chand (22) and Haru (40), two progressive farmers who have taken to vegetable growing. Khem Chand has 15 *bighas* of land which he bought for Rs 7,500. He has put seven under vegetables. He got the land levelled through the



ABOVE: Calves born of German-breed heifers at the livestock farm at Kamand.  
LEFT: 'German Sabzi' being delivered at the Mandi market.



# FARMING

help of project authorities and also managed to introduce lift irrigation. From the vegetables grown extensively on the field he expects to earn more than Rs 14,000 or double the price he had paid for the entire land. Haru has grown *bhindi* on six *bighas* of land. He has already sold *bhindi* worth Rs 400. With the standing crop on the field he expects to earn Rs 700 in all. Both Khem Chand and Haru used fertilisers, improved seed and latest tools supplied by the project authorities at subsidised rates. Growing of vegetables on scientific lines has changed the economic condition of farmers, some of whom have now installed irrigation pumps on their fields.

## NEW BREED OF POULTRY

OF all the Package areas in the country Mandi is the only district where animal husbandry plays an

important role. The aim is to encourage the farmers to take up poultry, cattle rearing, dairying etc. One of the easiest methods of introducing mixed farming on small holdings is poultry keeping. Apart from 6,400 birds distributed last year 2,250 more pullets (ratio—5 pullets to one cockerel) have been distributed this year among the farmers at subsidised rates and 150 farmers have been given short-course training in poultry-keeping.

At the poultry farm at Sunder Nagar, 24 kilometres from Mandi, I saw a number of well-kept birds and the German hatching and brooding equipment. What measures were taken to produce better chicken? Mr N. N. Wahl, Poultry Development Officer, explained they had received from Germany 2,000 eggs of improved White Leghorn and Rhode Island Red varieties, out of which 1,200 chickens—600 male and 600 female—had been obtained. After selection the project authorities kept 500 layers and distributed the cockerels to farmers and outsiders for breeding purposes. The farm has six German incubators with a capacity of 500 each. There is a small generator as a stand-by during power failures.



Sardar Sajjan Singh of the Seed Multiplication and Demonstration Farm, Bhangrotu, spraying insecticide. LEFT: A flock of White Leghorn layers at the Sunder Nagar Poultry Farm. RIGHT: A farmer ploughing on high hill, a common sight in Mandi.

## NEW TOOLS REPLACE THE OLD



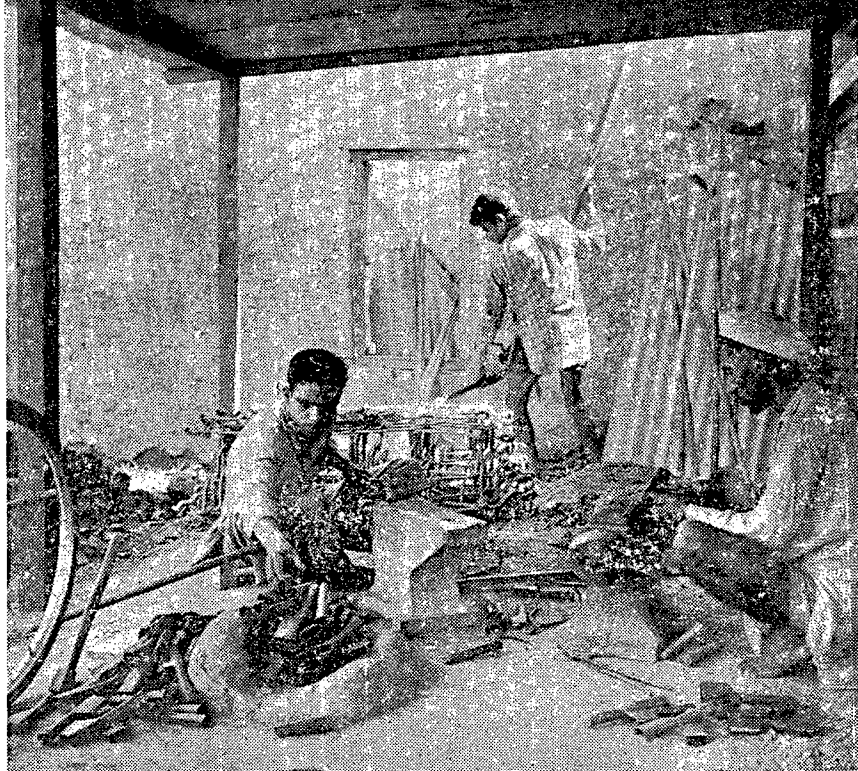
The livestock farm is located at Kamand, about 16 kilometres from Mandi. I had to make an uphill journey by jeep and cross a stream on horseback to reach the place. The German Government had sent 25 heifers and eight bulls of a German breed and 40 ewes and ten lambs of merino breed. The bulls are to be used at various centres for artificial insemination. Nine veterinary surgeons have completed training in artificial insemination. Two centres have started work, one at Bhangrotu and the other at Joginder Nagar.

Mr S. S. Gupta, animal husbandry specialist, explained that experiments were being conducted to find varieties suitable for the hilly areas. It would take a few years before the right type required could be found. Besides the German cows and bulls, the farm had a number of Jersey cross-bred cows, buffaloes, pigs, brood mares, a stallion and sheep. On an acre of the adjoining land was grown red clover and lucerne for use as fodder.

In order to improve milk supply in the district it has been decided to set up a modern dairy at Mandi at an estimated cost of Rs 31 lakh. The Government of West Germany will provide machinery worth Rs 17.48 lakh. The scheme has been approved and the place has also been selected. As for feeder and fodder development, pasture lands belonging to selected mixed farms are being developed by proper application of fertilisers and by methods of controlled grazing. For growing fodder the farmers are being given superphosphate and fodder seeds at 25 per cent and 12.5 per cent subsidised rates respectively.

## INCENTIVES TO FARMERS

I then visited the Horticultural Station at Nagwain, 49 kilometres from Mandi. I saw tender apple, walnut, almond, persimmon trees and tomato and red pepper plants. Caressing the leaves of an apple plant Mr Mani Singh, the enthusiastic horticulture specialist said: "We prepare apple seedlings and graft them with those of other varieties such as Red Delicious and Golden Delicious. After a year we transplant them. After they grow we sell them to farmers at the subsidised rate of



**Making replicas of improved German tools at the workshop at Bhangrotu.**

75 paise each as against normal rate of Rs 2.50." What other incentives are given to the farmers? "We give Rs 500 as loan to those who want to raise orchards. For the first five years we don't charge anything. The loan is recovered in ten equal instalments from the sixth year onwards when the trees start yielding fruit. And you know an apple tree usually yields fruit weighing two maunds."

I learnt that in 1963-64 horticultural loans amounting to Rs 2.88 lakh were granted to the cultivators. Besides, more than 100,000 deciduous and ever-green plants had also been distributed. During the rainy season this year 30,000 plants had been distributed and an additional area of 300 acres brought under orchards. Besides, 3,000 sets of improved horticultural tools are being imported from West Germany for distributing to the interested farmers at subsidised rates.

## NEW MEASURES CONSERVE SOIL

FROM the facts stated above, one can have an idea of what the project authorities have done to improve the agricultural output of the Mandi district. But, as in other hilly re-

gions, in Mandi also they had to face a great obstacle, namely soil erosion. Every year rains wash away the fertile top soil turning the eroded land into ravines. The ravines in course of time become deeper-making the task of soil conservation difficult every year. To solve the problem the project authorities have drawn up a programme which includes soil conservation, better drainage and irrigation and afforestation. Three pilot projects have been taken up in this connection.

The first I saw at a place called Naulekha on the Mandi-Simla road. Dr Jogi indicated a vast area of ravines which seemed to have been barren for years. Pointing in another direction he said, "See those bench terraces there? That part has been reclaimed with German bulldozers. Now you can see some Rabi crops sown there. This demonstration has convinced the farmers and in course of time the entire area will come under crops."

The second pilot project is the Bain Nalla project which combines soil and water management. It covers an area of 4,000 acres, in which it is proposed to plant grass and trees and build tanks at higher altitudes and prepare terraces in the adjoining areas. Lower down the *nalla* a bund will be erected and water stored will be used for irrigation. Survey has been completed and the project is expected to start soon.

The third is the drainage project which I saw at Nagwain. A water-logged area of 121 acres, Nagwain yields only one crop during the rainy season. On the suggestion of Mr Lampeke, German soil and water management expert, subsoil drains are being laid three feet below the surface. I saw one main drain with a number of laterals. The excess water seeped into the laterals and flowed to the main drain which took the water to the Beas near-by. An interesting feature of the drain was the special type of bricks used for the purpose. The bricks laid on the ground were carved along the length resembling a split bamboo pole. On them were placed same type of bricks in a reverse position allowing water to pass. It was one of the simplest ways of clearing water-logged areas that I had seen. The expanse of fields is now ready for cultivation of cauliflower.

## A YEAR'S GOOD PROGRESS

It is only 12 months since the Package authorities introduced the programme in Mandi—too short a period for making any assessment. Still there is no denying that the programme has made the desired impact. What are the reasons?

*First*, the liberal distribution of fertilisers. Said Mr. H.R. Mahajan, Deputy Commissioner, who is in charge of the Package programme, "Mandi is a backward area and the people are poor. We shall see to it that fertiliser reaches every farmer."

*Secondly*, the use of improved tools. In no other Package area had I seen so many varieties of improved tools put on the field. Apart from those imported from Germany I saw the local artisans making replicas of German tools with considerable ease at Bhangrotu. The agricultural engineering workshop had almost been complete, and the machinery from Germany had already arrived when I visited the place.

*Thirdly*, the well-equipped soil testing laboratory. Set up more than a year ago, the laboratory is equipped with latest German instruments including the flame photometer which helps in evaluating the sodium, potassium and calcium content. The

laboratory has analysed more than 5,000 samples of soil so far.

*Fourthly*, distribution of improved seed of wheat. Local seeds being found unsuitable for fertiliser consumption, the District Co-operative Marketing and Supply Federation procures the surplus seed from the farmers under the direct supervision of extension officials and gets them cleaned and dressed by the German cleaning and dressing machine at the Seed Multiplication Farm at Bhangrotu. Twenty kilogrammes of selected seeds are put in each bag and sold to farmers at a nominal rate.

And finally, the zeal and devotion of the German experts and their Indian counterparts. In fact, extension officials spend most of the time on the fields helping the farmers in various practical ways. I could not meet any German expert as the entire team was away in Germany on a home visit. But I noticed everywhere evidence of their work. An extension official related how, in the beginning, Mr. Dekena, the German horticulture specialist, carried bags of fertilisers himself and approached the farmers from door to door so as to persuade and convince them.

## QUOTATION BOX

I do realise that there is corruption among sadhus too. But there is less of it among them than one finds among, say, politicians or business men.

—Mr Gulzarilal Nanda

Women passengers galore have written to us in the past to point out that the (air) hostess's attentions are usually confined to males.

—From "New Delhi Notebook" in "The Statesman"

Everything from Idli to Queen's cake is within his range.

—From an official feature on "Training Cooks for the Army"

Given sufficient time, they (the people of Madras) would beat the people of Uttar Pradesh in acquiring proficiency in Hindi.

—The Prime Minister at Madras

We don't believe anyone reforms between 68½ and 70.

—Mr Dean Rusk

The fastest expanding bank in the city of London is run by Russian Communists.

—A news agency report

India's attitude towards foreign capital is exemplary. If every developing country had the same attitude, they would get on much better.

—Sir Peter Runge, President of the Federation of British Industries

So long as we teach English, let us teach it well.

—Mr Chagla

Many things in our country would be different and vastly better if we refused to repeat slogans.

—The Vice-President

Today we learnt in school how to get food from Government.

—Cartoon caption in "The Hindustan Times"

In the room the women come and go

Talking of Michael Madhusudan

Satyajit Ray

Rising Prices

Mods & Rockers

Bertolt Brecht

Monokinis

Handicrafts

—From an advertisement of Handicrafts Emporium

Like Gandhiji he (Nehru) felt that the best guarantee for a secret remaining a secret was to have none or as few as possible.

—Mr J.N. Sahnii

They (flour mill owners of Calcutta) are said to have been supplied wheat by the West Bengal Government at Rs 14 per maund and to have sold the flour at Rs 40 per maund. Within the space of a few weeks a score or so of the millers are said to have amassed nearly Rs 4 crore at the cost of the common man's bread.

—Mr Jayaprakash Narayan

# The Best from Planning

(Continued from Page 6)

alisation. Because agricultural production is to increase five per cent annually for the country as a whole, it will not be the same for that State. It may be higher or lower. That figure will emerge only when the growth possibilities of different districts and blocks are assessed and methods for tapping them outlined. The growth chart in agriculture during the Fourth Plan for the State, in turn, would be the sum of the innumerable growth rates realistically worked out in the various districts.

The innumerable growth rates do not emerge like some Minerva fully armed from the brow of Zeus. They flow out of the provision of irrigation, seeds, fertilisers, credit etc. to millions of agriculturists. The requirements of those resources for production have to be worked out in great detail and their provision assured conjointly and in time. Agricultural advance, therefore, requires a certain degree of sophistication on the part of the farmer. He must be conscious of his needs and do something to meet them. This is how the world over farmers' co-operatives have come up. The farmer will discover that the availabilities of supplies are facilitated and assured when linked up with the marketing of his produce. While the administration strives to assess his requirements, he builds a nexus with his neighbours for receiving supplies and utilising them in a constantly improving manner. The techno-administrative competence, therefore, is not fixed; it has considerable variables in it.

It is wise to ponder over the following observation made by Mr. Albert Waterston :

"Since administrative reforms to improve projects programming present many difficulties and generally take a long time to carry out, orderly preparation, execution, and operation of projects is more difficult and time-consuming than the preparation of an aggregative development Plan."

We should no longer be satisfied with aggregative planning—it is merely the alpha and omega of planning. It is the detailed, step-by-step preparations of a plan and their phased

execution that decides the quantum and quality of yields. The heart of sound planning comes from the contribution of the administrative experts.

## Technical Studies

THE next area is the one where a great deal of pioneering has still to be done—that is, in the field of *techno-economic* surveys. The National Council of Applied Economic Research (NCAER) made a valuable contribution in evoking the interest of the State Governments in such surveys. In rare cases, the study has been carried forward to the district. However, much still remains to be done. To uncover the gamut of growth in a region and then to weigh the costs against benefits that different programmes and schemes imply is a necessary exercise for adequately organising a prospectus of development. The niggardliness of available resources needs to be compensated by rationality in the choice in development.

Even at the national level this kind of work leaves much to be desired. At the district level, this approach with simplified criteria has a cardinal role to play in planning. Techno-administrative decisions will be meaningful only when techno-economic analysis becomes a habit of work. In evolving the criteria, in infusing various administrative disciplines and cadres with economic calculations, the universities can make an incalculable contribution. A poor region has a greater need for cost consciousness than an affluent one. Once techno-economic thinking starts, development will cease to be just a catalogue of felt needs.

The *social-economic conditions* determine both the goals, the means and the pace of growth. A society remains stratified, an economy remains stagnant, because a certain alignment of social and economic forces maintain it that way and profit from the situation. Growth within the framework of those forces would be limited and unbalanced. It is in the nature of development to favour the strong against the vulnerable. There is such a thing as the tendency towards *cumulative inequality* that development touches off.

If it is not corrected, it limits the possibility of growth, at the same time distorting it.

## Hard Haul and Hump

THE growth strategy requires an increasing mobilisation of savings for stepped-up investments till the infrastructure of the economy gets built and the occupational and production structure basically altered. This is what is known as the *hard haul* from 5 per cent annual rate of saving and investment to 20 per cent, a rate that ensures crossing of "*the hump*" of developmental efforts. Further progress from there is comparatively smooth and free from special strain.

The initial expanding accumulation has to be attempted while augmenting the national output. To mobilise the savings needed and to channel them in the desired directions, both require considerable discipline. If the hard haul is to be quickly attempted, the marginal rate of savings has to be high. The production structure of the economy will not be diversified, the various segments and levels of the economy will not get activated unless the society makes a concerted effort to diffuse skills widely, to spread education and to impart some evenness in the distribution of purchasing power. Traditional social and economic relations choke these efforts and thereby *abort growth*. If in more than half the districts of India the growth urge has so far proved to be sterile, it is due primarily to the adverse social context.

We have introduced a number of reforms that have set in motion the process of altering the traditional social-economic relations. The land reforms have wrought some changes. The measures taken to ameliorate the conditions of the Scheduled Castes and Tribes have broken the hardened crust of what Walter Bagehot called "the cake of custom". In the nineteenth century, the status of women in our society got debased. That is why, from Raja Rammohun Roy onwards, social reformers concentrated with devotion on the rehabilitation of women as equal members of society. I am indicating a few changes to show that we have not been static, but we are still far from achieving a decisive reshaping of the social structure, providing a vital boost to our growth efforts.

Techno-economic criteria have often to be redefined in the light of social and economic realities. For one thing they may not permit the full realisation of techno-economic possibilities, and again these possibilities have to be understood differently against a varying backdrop. Our economy operates at different levels of technique. Lower techniques have to be accepted and imported not only because of shortage of capital or abundance of labour, but because techniques can be raised only in a phased way to avert social disruption. Here, techno-economic efforts assume the character of maximising gains from the prevailing structure of production. It is not so much changing the instrument, as tightening the strings to get the music desired. Changing of tools and techniques is one thing, improving performance with the old tools is another. The stimuli and disciplines needed in the two cases often are not the same. All this adds to the responsibilities of the administrator.

### Role of Leadership

THE core of our problem resides in the *socio-political leadership*. The developmental revolution that a country like ours has to put through—and the Plan is merely the outward expression of that inner effort—requires clarity of purpose and determined execution. These are the tasks of political education and organisation. Here we have been singularly weak. Administrative efforts by themselves cannot evoke the response which involves a deep impact on the thought-patterns and habit-structures of the people. In some districts of India, co-operatives have provided a new dimension of efforts to our agriculturists. There are regions where 'milk grids', with a complex of dairy industries, are emerging. There are other regions where agricultural produce is being processed at rising levels of complexity, for example, sugarcane being converted into sugar in co-operative factories, and these factories then co-operatively using the waste bagasse to produce paper.

Such modernist trends in the aspirations and articulations of political leadership lead to the forging of a *forward linkage* between agriculture and industry. The income structure of small agriculturists can only

be altered when they take over the more paying functions of trade and manufacture. This effort at restructuring rural society through co-operative efforts and technological improvements is as yet a far from general feature of political responsibility.

### Experimentation

ON the whole, our planning efforts have not resulted in adequate experimentation and in the formulation of new and meaningful clusters of productive relationship. In Israel, for instance, the *Histadrut*, their trade union organisation, is engaged in vast and varied productive activities, and offers a new lever of development and social change. In Yugoslavia, the Workers' Councils have likewise attempted an organisational mutation. Some experimentation is taking place in our country in the working of the Panchayati Raj institutions. The innovations attempted in Orissa show that both considerable scope and promise exist here. The universities need to devote more time and thought to the problem of organisational innovation. If technological progress and classical economic growth are the result of innovating entrepreneurship, rapid improvement in the levels of work and output in the "diffused sector" is contingent upon *organisational innovation*. This is the area where political and cultural leadership can show its fecundity.

The one big innovation that is imperative in modern development is the *cultivation of science* and the utilisation of its researches. It is a part of planning to gain for our people a place in the republic of science. Its findings have to be spread wide. To accept science is to learn to live with change.

### Investment in People

FOR the success of the growth strategy, investment in people is as important as investment in things. As a recent study points out, the first is the key to the second :

"If a country is unable to develop its human beings, it cannot develop much else, whether it be a modern political and social structure, a sense of national unity, or high standards of material welfare."

*The strategies of human resource development go beyond formal edu-*

cation. Schools, staff and students are important but they do not exhaust all the elements of the strategy. Motivations and incentives are no less relevant. It has been suggested that in some countries for instance it might be desirable to provide equal pay to a doctor who insists on practising in a city and a medical technician who is willing to work in the rural area.

"In most underdeveloped countries, the incentives might need to be very strong indeed; with fantastic shortages of both money and personnel, these countries must make sharp choice about whom to educate and in what fields, and some may need to impose a period of national service on those thus educated."

In-service training is likely to improve skills, widen understanding, more relevantly than costly formal education.

The various elements of strategy of human resource development have to be diversely combined to meet the special requirements of different regions at different levels of development. It is not sound planning to put a uniform accent on primary, secondary, technical, university and adult education. Not only do the relative accents have to be different, as is generally done, but there is also the need for securing variations in emphasis that are in consonance with the special conditions of different regions. These regional variations we tend to neglect.

Educational attainments not only act as steps in the ladder of possible economic betterment within the urban economy, but in the larger context, they could also have the result of converting, at least a part, of the increasing unemployment in rural areas into overt urban unemployment. The full implications of this feature will have to be taken into account in the planning of different regions.

### Family Planning

ANOTHER significant area of effort is family planning. The implications of the population explosion for economic development need no restating. Where the tempo of growth is sluggish, population increase can shatter the social stability. Family planning implies the accep-

tance of rational criteria. In the intimate area of family life it is assumed that matters like the size of the family, spacing of births, limiting the number of children in order to give them better opportunities of life, would be recognised and consciously acted upon by each man and his wife. To the extent a mass response is evoked here, a cultural transformation has already taken place. It indicates the assertion of a deliberately organised scale of preference over traditional values. Such a big change cannot occur in a single segment of life alone. If the people are ready to plan their families, they are ready for changes all along the line. If they are sluggish in other directions, family planning will mean little.

### A Time-Bomb under Us

WE cannot plan on the implicit assumption that time is no problem. There is a time-bomb ticking under us. In seeking to escape the tension of growth, we get caught up in the toils of stagnation. Inside the most unchanging society, the charge of dynamite is piling up. That is the cardinal difference between the past and the present. Today time has emerged as the determining factor of all our efforts, and we seem to have a surplus of almost everything except time.

Planning is a *continuous process*. Even the best laid plan needs a certain measure of revision by the time it is finalised. There is no end to the possibilities of refinement; care has to be taken to see that the urge for improvement does not prove to be the disguise worn by a built-in device for delaying execution. Again, the various proportions and relations in the plan are determined partly by techno-economic factors and partly by politico-cultural considerations. Whatever the pressures and possibilities, a certain balance between the sectors has to be maintained. Luigi Pirandello's words from his play, "*Six Characters in Search of an Author*", have considerable aptness:

"You cannot have one character coming along like this, becoming too prominent, invading the stage in and out of season and overshadowing all the rest. All the characters must be contained within one harmonious picture, and presenting only what is proper to present."

An economic plan is like a play. First, the characters appear in a sketchy way, that is, the objectives emerge; then slowly the characters take shape and the lines of dialogue emerge. Similarly, in the Plan, the inter-sectoral relations get established and the details of every sector are spelt out. A plan, like any piece of good administration, is at once an art and a science.

*Address at the Institute of Public Administration, Lucknow University*

### Hamara Hindustan

## STARS

BETWEEN my last and recent visits, Calcutta has acquired a planetarium, the only one in India ("and the second in the Commonwealth", as a Calcuttan obeying the time-honoured ritual gravely intoned.)

A planetarium, according to the standard dictionaries, is just a model of the planetary system. As the word is now understood, however, it means a machine that projects on to the hollow of a dome the image of the swirling skies. It is a great educational aid for arousing laymen's and students' interest in the universe around us and in the stars in their courses.

The Birla Planetarium, nearly a year old, is an attractive building prominently situated next to the Church on Chowringhee. I went with high hopes, having invariably enjoyed my visits to planetariums in other countries.

But it was something of a disappointment. When the lights are out and a man-made sky is created with each small star in the right place, the transport is so complete that the words of the speaker must aid and not obstruct the wonder. The talk was on "Rasis and Nakshatras". The Planetarium has three or four other standard lectures, but "Rasis and Nakshatras" could be as fascinating as any other theme.

The faults were these:

- (1) The talk was too long. Such a talk should not go on for more than 20 or 25 minutes.

- (2) It was meandering and undistinguished. There was not that fusion of image and word which makes for art.
- (3) The simple rule of communication that you must go from the familiar to the unfamiliar was overlooked. In a 50-minute talk on stars there was not even a single reference to the *Saptarshi Mandal* (Great Bear as it is called elsewhere) which is perhaps the first constellation a child learns to recognise.
- (4) And in the end, one was not any the wiser on the difference between the astronomical and astrological meaning of a 'rasi'. When we say that a given planet enters a given 'rasi' what exactly do we mean?

The Planetarium must do something to gauge audience reaction and also invite distinguished speakers on popular science from the various languages of India to give their assessment. S. P.

SHAMBU

By Malinda Topa



## ECONOMISTS ANALYSE MEMORANDUM

(Continued from Page 13)

agricultural production, an assured supply of basic consumer goods to the people at stable prices, further development of heavy industry in order to provide a sound base for the economic advancement of the community and, generally, measures and policies subserving the interests of the common man. Finally, while achieving rapid economic growth and increasing productive capacities, a major objective in the Fourth Plan must be, not only to prevent concentration of economic power and the emergence of monopolistic tendencies but also, progressively, to reduce the existing disparities in income and wealth, secure for the bulk of the people their basic needs for food, clothing, housing, education and health and expand opportunities for employment.

Going back to Chapter I, I could cull together the odds and ends of the objectives and priorities of the Fourth Plan, which include augmenting the supplies of food-grains and agricultural raw materials; of fertilisers, insecticides and agricultural implements; of essential consumer goods like textiles, sugar, drugs, kerosene, paper, etc; of cement and other construction materials; ensuring continued growth in the metals, chemicals, machine-building, mining, electric power and transport industries; provision of maximum possible facilities in the social services sector; and, finally, promotion of 'rapid progress towards greater employment and social justice'. (pp. 6-7).

All sectors in the economy are therefore priority sectors, with reduction in income inequalities thrown in for good measure as a further priority item. This, I submit, is essay-writing, not planning. The Memorandum throws no light on what things are being given up and for the sake of what, or on whether some priorities will be treated as more equal than others.

A comparison of the allocations proposed out of the public sector out-

# Too Many 'Priorities'

lay in the Fourth Plan with the pattern of expenditure that is now being anticipated for the entire Third Plan period would reveal that in fact the Memorandum is not suggesting any fundamental shift in investment pattern.

Agriculture and irrigation together are to claim 21.8 per cent of the aggregate outlay as against the anticipated allocation of 21.2 per cent during 1961-66; the allocation for organised industry remains practically the same—20.5 per cent as against the anticipated actual of 20.3 per cent for the Third Plan; the allocation for small industries too does not vary. The only suggested shift worth noticing is the under-emphasis of power, transport and communications (proposed allocation of 31.6 per cent of total as against anticipated 38.1 per cent); the resources not going to these sectors are intended to be shifted toward the direction of education, health, housing and other such social welfare activities.

It is difficult to judge on *a priori* grounds whether these marginal alterations in public sector allocations would either harm or help 'the common man' over the five-year period. In agriculture, the principal innovation proposed is to have more of minor irrigation projects and to reduce the emphasis on projects with long gestation. But it is easier to talk of minor irrigation projects than to organise them. 'Money can play a disappearing trick here as it has done in the case of community development project and, in the absence of any cognisable effect on agricultural output, the inflationary potential of a given quantum of money is *per se* larger if spent on minor irrigation works than on major projects. There is also the danger that, in the current enthusiasm for minor irrigation, vitally necessary follow-up actions on major projects might be neglected.

The Memorandum is implying that, by the end of the present Plan

period, we would have some excess capacity in transport and communications (and, by inference, also in power), at least in the relative sense. But it is possible to read too much in this year's fairly easy transport situation: we should not cast away the lessons of 1961-62 too lightly. In so far as the money saved from these infra-structure activities is proposed to be spent on social welfare measures, we are certainly exercising a deliberate choice—the choice of greater social amenities as against the expansion of capacity. But 'the common man' would not be amused if a situation arises where he is unable to get the food grains because of the shortage of wagon capacity.

The allocation in the public sector for fostering consumer goods output is only Rs 150 crore—in itself not a large amount—but in the private sector investment in this sector is intended to reach Rs 650 crore. Obviously a large relaxation in licensing policy is being contemplated to encourage production of essential consumer goods so that the Plan could have 'a positive content for the common man'. But institutions and semantics being what they are, it is altogether possible that the liberalisation of controls would in practice lead to establishing a range of near-luxury consumer industries catering to people in the upper income brackets.

Let us not fool ourselves. The present crisis is not primarily one of production, but of distribution. Granted that with a larger supply of inputs such as fertilisers and farm machinery agricultural production could have been higher during the present Plan; but even here the major problems are institutional and organisational. Tinkering with long-term plan priorities is no substitute for lack of national morality or, for the matter, lack of courage on the part of the Government to clamp down on profiteers.

### Capital-Output Ratio

Let me pass to another point. The *ex post* capital-output ratio for the Second Plan came to about 3.3 : 1. The Memorandum throws some hints on the realisable capital-output ratio for the Third Plan. National income is expected to reach Rs 17,400 crore (at 1960-61 prices) in the final year of the Plan, so that the total increase over the five-year period would

amount to Rs 2,900 crore. Aggregate investment is now estimated to be in the neighbourhood of Rs 11,700 crore at current prices, which, when re-worked at 1960-61 prices, would certainly not exceed Rs 9,500 crore. Thus, even on the most optimistic assumptions, the value of the *ex post* capital-output ratio for the Third Plan would again be around 3.3 : 1.

The Memorandum postulates investment of the order of Rs 19,775 crore (at 1963-64 prices) for the Fourth Plan. Since the over-all increase in national income aimed at is 37 per cent (6.5 per cent per annum), the increase in money terms should amount to Rs 7,000 at 1963-64 prices. This gives us a magnitude for the capital-output ratio only slightly higher than 2.8 : 1.

Is this optimism justified, or are we being led once more up the

garden path? After all the investment allocations proposed for the Fourth Plan do not differ that markedly from those of the Second and Third Plans. Which then is the newly emerging bargain sector? One is naturally curious to know, for there is a great danger of our coming to grief early if too much reliance is being placed on minor irrigation or consumer industries.

And one is curious to know how the balances work out between the different sectors, for any single year and for all the five years, under the alternative consumptions of total outlay amounting to Rs 22,500 crore and Rs 21,500 crore respectively. One also wants to know whether any logic is being contravened in the hypothesis that, irrespective of whether the total outlay is the latter or the former figure, private investment would remain the same.

The Plan Memorandum has come out at this point of disenchantment, aggravated by the anger about shortages and rising prices. Doubts have been expressed both about the efficacy of planning as the best possible way to overcome our economic underdevelopment and the technical capacity of the Planning Commission to evolve a workable and effective programme of action for the Fourth Plan period. The Memorandum, as it stands, does not quite help in dispelling doubts and hesitation on both these aspects. These doubts have to be looked into. The positive feelings people might have about the adventure and promise of planning are being erased and eroded. The Plans have not made as much headway as they should because the people—the ruling classes as well as the governed—do not have or feel like having a sense of participation. The Memorandum has referred to public co-operation in a small section tucked away somewhere as an afterthought. This is only symptomatic of the rather limited failure of the public relations of the Planning Commission and the more general failure of the leadership—political and non-political—in generating sufficient enthusiasm for the Plans.

By the time the Fourth Plan takes fuller and final shape, methods must be found to bring the Plan closer home to the people whose readiness to undertake some additional effort is going to make it or mar it. This is not a matter of increasing the frequency and intensity of exhortation in public places. Partly, it can be tackled by calling in successful, practical public relations men; more fundamentally, processes of planning have to take into account the stimulating and depressing effects of economic policies. The common man—we are all common now—will ask, "What do I get out of it"?; he should be given a comprehensible reply and if there is no easy reply, the need to undergo sacrifices for national objectives has to be conveyed. This latter may be the task of the professional politician; if so, he has been shirking his responsibility too long.

Apart from public co-operation and political leadership, the Fourth Plan will mainly depend on the

## ECONOMISTS ANALYSE MEMORANDUM

QUIETUS

# Answer the Question: "What Do I Get?"

## PLANNING HAS LOST APPEAL

CHRONOLOGICALLY, I belong to the lower middle-aged generation; economically, to the higher lower income group; and socially, to the professional class. My type of people have had a certain emotional commitment to planning both as an agency for social amelioration and betterment and a challenging intellectual exercise in socio-economic analysis, interpretation and prognostication. Before Independence, there was some glamour about the kind of thing the National Planning Committee worked on and wished for. Soon after Independence, there was some fun in talking about capital-output ratios and the idea of doubling the per capita income in a generation. The later years, however, have taken all the gilt off the gingerbread. Probably, one expected too much in so short a time but planning seems to have

lost much of its appeal to us. Its results are mainly felt in the large bite taken out of one's salary cheque every month by income tax. The benefits of planning are too thinly spread or too unevenly distributed. It is this feeling that planning had failed us which hurts, like the treachery of a trusted friend. When we consider things in their broader perspective, we realise that other factors have also failed—mainly human material in administration, trade and agriculture. There are many explanations but the accusing finger continues to point at planning and the Planning Commission.

quality and performance of administration. The Memorandum devotes a chapter to this. It makes very disappointing reading; more than anywhere else, the advisory role of the Planning Commission comes through too clearly. The sentences bristle with 'should' and 'it is essential that'. Is it not because there is really nothing much to report about what has been done or what is likely to be done about improving our administration generally and Plan execution in particular? The Planning Commission does fail in its duty if it does not take into account dangers inherent in a Plan the size and scope of which the administration is not likely to cope with. This danger is grave because the Third Plan failures have already affected the trust, faith and the appeal to enlightened self-interest which are the necessary concomitants of a national effort of its type.

To revert to the view of the common man, Plans are meant for the increased availability and better distribution of goods and services although with some time lags and after some sacrifice and privation. This Memorandum—as many of its predecessors—harps on the inputs and resources to be mobilised from the people. The outputs and availabilities are mainly seen in some statistical tables and figures which only grudgingly yield their significance to the individual, to the pattern and perspective of his life and work. To some extent, again, this is a matter of presentation. More so, it is a question of attitude. Emphasis has to be laid on the positive aspects and results of the Plans. There has been an improvement in our levels of living, in our surroundings and in our capacities to produce. To the extent that the Plan will lead to increased consumption and a better *milieu* for working and living, this should have been brought out. The materialist aspects of the Fourth Plan will have to be explored more comprehensively and presented more appealingly.

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The slag granulation plant of the Bhilai steel works has been commissioned. The fourth blast furnace and the seventh open hearth furnace are ready for heating.

## ECONOMISTS ANALYSE MEMORANDUM

# Backward Regions Need More Care

## Centre Must Own Main Responsibility

V. V. RAMANADHAM

*Dean of Commerce Faculty, Osmania University*

THIS brief note deals with "one of the principal aims of planned economic and social development of this country", namely, "to promote the balanced development of different regions through the provision of planned benefits to the less developed areas". (*Memorandum on the Fourth Five Year Plan, page 84.*) The expectations that the concept of developing backward regions has, for some time now, raised in several of such regions have been as high as the unfortunate suspicion that "not enough" has been achieved in this direction.

There are two fundamental questions to which answers cannot be postponed. First, except for investments which, on their own merits, are likely to be as economical in the backward regions as elsewhere, "policy investments" in the backward regions essentially imply some diversion of investible funds from the more productive or surplus-raising regions and correspondingly interfere with the canon of promoting the fastest possible national rate of growth. Hence a broad decision has to be taken as to the extent to which we not only visualise but practise the interference, in terms of investment magnitudes during the next five, ten or fifteen years. No precise figures can be suggested in this regard, of course; but a *relative* perspective has to be worked out.

Secondly, experience suggests that the operative framework for implementing our notions of developing the backward regions has not been

adequate or effective. For instance, there have been no regional reservations of quotas in industrial licensing, nor have any regional allocations been made of the financial aids that could possibly accrue from the operations of several public sector undertakings such as Industrial Finance Corporation, the Life Insurance Corporation and National Industrial Development Corporation. I am not, at this point, making a case for every one of these measures, but the idea is to illustrate that possible measures of implementation have not been laid down; with the result that many development policies at the level of administration and implementation have operated in an environment of unclear compromise between sentiments favouring backward regions and the practical anxiety for over-all growth. To the extent that specific aids to the development of backward regions are decided upon, an appropriate framework of implementation, ranging over a wide area of industrial and financial decisions, has effectively to be worked out.

The paragraphs on this subject in the Memorandum (pp. 84, 85) give the impression that the major responsibility for the development of backward regions is placed on the State Governments and the State plans. This is, empirically, an inadequate approach, since railways, big multi-purpose projects and major industrial establishments are actively decided upon by the Central Government; and there is a theoretical flaw as well, for policy aids to backward

regions intrinsically entail some responsibility on the part of the Central decisional agencies.

Finally a few suggestions may be made as regards the necessary steps for giving effect to the philosophy of developing backward regions.

(a) The backward regions have to be identified and scheduled on some acceptable criteria such as income, employment, occupational structure, and rate of growth over the last fifteen years. The last is a difficult criterion, especially when we go below the level of the State as a region, and subjective elements can easily complicate the appraisal.

(b) The resource potentialities of the regions have to be computed and, what is more important, we have to distinguish the avoidable from the unavoidable reasons for backwardness, so that we may concentrate on the former.

(c) National priorities have to be worked out as regards the policy aids through outlays, tax concessions, social benefits, and so on.

(d) Clear criteria of action have to be provided to administrative agencies.

These, it may be appreciated, call for an all-India agency, since the whole programme basically hinges on resource flows to backward regions from outside and the necessity for determining priorities among the competing demands for such flows. Both in the identification of the backward regions and in the determination of priorities among the regions and among the alternative investment choices, a co-ordinated national approach is necessary. This is the reason why it seems to be difficult to agree with the suggestions made in the Memorandum, which over-concentrate the responsibility in this field on the State Governments themselves.

Further, a meticulous study of the sentences on page 85 gives one the impression that the problem was partly treated as one of rural development (an important but a general problem).

Many desirable details are likely to be worked out elaborately in the fuller presentations of the Plan document in future, but it is to the gap in the Memorandum on the fundamental conceptual issues that this note refers.

## ECONOMISTS ANALYSE MEMORANDUM

A. GHOSH  
Jadavpur University

# Price Crisis Must Not Divert Us from Goal

*It is Industry that Brings True Growth*

FIVE Year Plans have got into a mould and it is difficult to make any significant assessment of our planning efforts from them.

Since the methods and logic of the expert group have to be taken for granted in the absence of detailed explanation, there seems to be little left except to make general comments on the approach to the Plan.

In this respect, I must say my first feeling is that there is an increasing danger of the price crisis leading us once more into a panicky surrender of our rate of growth. The danger of such a situation is seen in a reduction in the allocation relating to the group industrialisation and its ancillaries like power with an increase in agriculture and social service.

### Truth about Farming

I think our main difficulty with regard to agriculture as with family planning is the refusal to face realities and plan with realities. The reality with regard to agriculture is the enormously large number of uncertainties associated with agricultural production. Firstly, one has to deal in this with millions of small individual producers of varying size and efficiency with whose activities the authorities have very little contact and no control. Their activities, therefore, must be assessed with a large factor of uncertainty in spite of our best efforts.

The second is that, monsoon agriculture is far too much dependent on timely and adequate rainfall. These two factors make it extremely difficult to relate agricultural output with

planned Government investment in it. This is a position quite different from the industrial and tertiary sector. In dealing with agriculture the Planning Commission always hypnotises itself into believing that what it wants will happen. I think a basic readjustment of the picture as regards agriculture will do us good. Just as in population we hope that birth-rate will fall but prepare for its not falling so also in agriculture we should hope that output will increase but prepare for a large safety factor.

The third and most important point is, that we have to grow and produce rapid industrialisation in spite of any possible lag in agriculture because it is possible to achieve a break-through in our economy through industry and industry alone. Good agriculture will make the path easy, bad agriculture will make the path tough, but to divert our efforts in order to solve the problem of agriculture before we can achieve a break-through in industry is a dangerous illusion. The near crisis in agriculture will probably continue till a general technological break-through has been achieved in the economy leading to a real diffusion of better technique and better organisation on a large scale through the entire country so as to reach into rural areas as well.

Hence the major plan with regard to agriculture should be at the moment with respect to distribution, and this mechanism must be ready to distribute any possible shortage over the whole community if necessary. This is a step which should have been taken in hand before the Second Five Year Plan, but was not

## Oil Innovator

IN his article on 'Achievements in Oil', appearing in your special issue devoted to Technical Innovation (October 25) Dr N. C. Sen Gupta, senior fields chemist, Oil India Limited, has been modest in explaining the achievements of himself and his associates in the oil industry in Assam. This newspaper correspondent has heard it said in the oil town of Digboi that Dr Sen Gupta played an important role in the chemical research which went into the invention of the process of 'crude conditioning' which has enabled the piping of highly waxy crude from Dhuliajan to Barauni.

In Sumatra in Indonesia also oil refiners have been faced with the problem of highly waxy crude which does not flow smoothly through pipelines. Stanvac tackled the problem by putting a water line all the way to the refinery, to keep the crude hot. This meant two pipelines in fact.

Shell attacked the problem through dilution with water, emulsifying the crude at the fields and de-emulsifying the crude at the refinery. For dealing with the transport of two million tonnes a year, after diluting it with water, Shell had to use a 20-inch pipeline. In Assam, Oil India has been able to do with a 16-inch pipeline, which ultimately may handle up to 4.5 million tonnes of crude a year. Shell had to erect huge installations for storage and emulsification and de-emulsification. The additional cost for Shell and Stanvac is said to be about 25 per cent, while in Oil India the additional cost is a mere four per cent of the total investment.

The pumping stations in Assam are on an average 136 km apart while the Shell pumping stations are 56 km apart. The Assam plant design has, no doubt, been British Petroleum's and the patent for the process remains with the company for whom Dr Sen Gupta had been working.

New Delhi K KRISHNA MOORTHY

from vague hints the Planning Commission does not give any specific guidance on feasible lines of developing such as an efficient organisation.

The Planning Commission gives a set of figures to the National Development Council more or less like a set of magic numbers, with text which contains a list of requirements and pious wishes about the requirements. While one is prepared to accept the logic of the requirement, a more sound case should be made regarding the feasibility of the targets as far as achievements are concerned: and attention should be paid to reality as seen over the last fifteen years.

The presentation of the Plan at current prices makes it impossible to assess the reality of the target in physical terms. Current price targets cannot be used to compare Plans. In presenting these targets, therefore, some data should be given on the price changes and their effects on the targets physically.

### Implementation

Mr. Nehru once said of the Second Plan that the Plan was sound but the implementation was faulty. It seems to me that this may well be the epitaph for most of our Plans. There is no doubt that considerable expertise has been developed in the matter of formulating a broadly consistent programme for development over the years. Our skill in formulating them has improved. But our skill in setting up the proper organisation for working the Plan has not only not improved but, from a study of the Memorandum, seems to be going down. The Planning Commission seems to be quite clear about the targets that have to be achieved but has little specific guidance to give on the setting up of organisations which will achieve these targets.

While implementation is not a function of the Planning Commission, the organisation that is necessary should be very clearly stated by the Commission for the benefit of the executive authorities. Formulating the implementation process is no less important than formulating the Plan itself. I think it is time that the Planning Commission gave more time to formulating the implementation procedures which are indispensable for making its Plans a success.

done. While I am not against an allocation to agriculture I am against any optimistic notions of quick results there to justify allocation at the cost of industry. In agriculture more organisation rather than more schemes are the real answer, at least as regards minor irrigation, drainage, seeds etc.

### Inflation Potential

The shifts in allocation seem to have an inflation potential as large incomes are to be generated in tertiary sectors. While no one denies that they are necessary—they were also necessary before—we should still count the inflation potential of these. The Plan should have been more goods-oriented than service-oriented.

Roads, electricity and post offices are better weapons for rural advance than block development camps and extension services and they are cheaper ways to modernise. We seem to be increasing types of expenditures which will not help the rate of growth or modernisation to the extent that they will add to the inflation in the economy.

The Memorandum is rather vague and optimistic with regard to the realisation of income, savings etc.,. The experience of the last fifteen years tells a different story. A simple comparison is made below of total income growth over the last ten years of the First and Second Plans and a projection of the Third.

*Growth of Income over the Plan period\**

Year	First Plan	Second Plan	Projected (Third Plan)
1	600.47	822.39	1398.73
2	499.37	895.76	1560.19
3	640.14	1116.69	1714.50
4	959.26	1312.13	1824.59
5	823.93	n. a.	1870.54*
Compound rate of growth (five years period)	5.90	n. a.	6.5

\*Union Budgets and Prices by A Ghosh. Asia Publishing. p. 22.

This does not warrant a straightforward expectation of 8 per cent growth rate unless many organisational steps are effectively taken. Apart

## THE FORTNIGHT'S PICK

of Articles Sent by Readers

# Panchayats Must Modernise Life in Village

Prabhu Datta Sharma

THE most recent report of the Sadiq Ali Committee about the working of the panchayati raj in Rajasthan has portrayed not a very rosy picture of the state of affairs in the countryside. Even after five years of experience, the evils of traditionalism like caste, community, stagnation, superstition and factionalism continue to keep their grip tight upon our illiterate villagers. Although a silent process of developmental revolution is on in our villages, by and large the major challenge that faces the panchayati raj institutions in our country is to modernise the life of our villagers. The need is quite timely, specially because the evils of traditionalism need not only be uprooted at an early date, but any delay in their immediate arrest may spell the ruin of panchayati raj itself. A modern concept like democracy or self-government cannot be sustained by a traditional community which has very little urge or enlightenment to fight against the evils of ignorance and mass immobility.

What can the panchayati institutions do to modernise the rural life? The answer is that they can educate and enlighten the people about the socio-scientific developments in the world around and encourage mass mobility to loosen the tentacles of traditional *status quo*. But then education and social mobilisation are very slow and expensive processes, which have to be attuned with the snaillike pace of growth of the rural economy. Agreed that the Panchayats and Panchayat Samities should open schools, construct roads, electrify villages, industrialise the countryside, encourage diversified professions and launch all sorts of campaigns

to modernise the life of a lay farmer or labourer in the village. But this in itself is an ambitious programme and needs to be supplemented by some short-range quick incentives for modernisation. These incentives, along with a constant influx of new ideas from urban life, can contribute substantially and effectively in changing the habits, food, dress and value pattern of our rural people. This progressive change, to my mind, can be accomplished more conveniently if our own Panchayats and Samities, while formulating their plans and fixing their targets, keep the following suggestions on the right side of their priority lists:

Before the end of the Fourth Five Year Plan period, i.e. by the end of 1971, every Panchayat Samiti should build a cinema house of its own and should have a few mobile cinema-vans for Panchayats in the area. Modern cinema, more than any other means of mass media, is the most effective vehicle of modernisation in any society, specially the developing ones. The Panchayat Samities can also make some money by renting the cinema.

Secondly, every Panchayat should organise and finance two or three camps in a year. It should request the Principal of a nearby college to send a dozen of young graduates or undergraduate students to stay in the village for a fortnight during their vacation. These students, if carefully picked up, can be excellent

carriers of modern ideas to the rural areas. They may live in the village as house guests and can initiate the villagers not only in their new jobs but in the ways of modern living. Our universities should help the panchayati institutions in organising such programmes. If needed the follow up may be organised in the same Panchayats by the same students. A programme of this kind, organised jointly by universities and Panchayats and duly co-ordinated, will be much more useful and steadily effective than the programmes like the American Peace Corps.

Thirdly, every Panchayat Samiti at the block should open a model department store at its headquarters. If this is not possible, a subsidised co-operative store may be attempted. This store, run on modern lines, should orient the rural customers into buying modern things, such as ready-made dresses, simple furniture, patent drugs, cheap books, indigenous implements, chemical manures, handicraft products, etc. A general socio-intellectual life may also be created around these stores with tea shops in the corners.

Fourthly, every Panchayat should provide incentives for change. A Panchayat has an obligatory responsibility to provide sanitary conditions in the village. It should also see to it that the villagers, particularly the women, learn to live clean as a matter of habit. To facilitate this the Panchayat should run a laundry and a barber's shop in every village. Barbers and washermen in the village should be employed on salary basis and the people living in the Panchayat jurisdiction should at least initially be given the facility to have a morning shave and clothes laundered both free of charge. Gradually a nominal fee may be charged and the modern dresses like *sari* or shirts may be popularised.

Lastly, the Panchayat should encourage the use of modern articles in our rural homes by supplying them to the families at their door. The articles like toothpaste and toothbrush, soap, towels, calendars, contraceptives, medicines, eggs, etc. may be distributed free. The loss may be recovered through some indirect taxes.

# Bigger Port at TUTICORIN

## Work Begins on Rs 14-crore Plan

WORK has begun on the development of the Tuticorin harbour into a major port. The project, being designed by Indian experts, will be completed in 4-5 years at a cost of Rs. 14 crore.

At present Tuticorin is an intermediate port on the eastern coast. It handles a traffic of one million tons a year.

### Jawahar Dock

Jawahar Dock, the new wet dock built at a cost of Rs 8 crore at Madras port, has been opened to traffic. The dock can take in six vessels at a time. The dock adds 6 berths to the already existing 12 dry cargo berths and 3 tanker berths in the port.

## Insulin Made in India

An insulin plant, set up in the private sector in Bombay, has begun production of all types of insulin. The first of its kind in India, the plant has a capacity to meet the country's requirement fully.

Insulin is a drug that checks diabetes. It was discovered by Dr Banting of Canada in 1921. It is a protein consisting of two polypeptide chains connected by an amino-acid called cystine. It strengthens the pancreatic hormone which controls the sugar content in the human blood.

## Vaccine for Poultry

The Livestock Research Station at Mathura (U.P.) has developed a vaccine for protecting poultry against spirochaetosis, a common infection in northern parts of the country.

The Intensive Cane Development blocks in Uttar Pradesh produced, on an average, 177 quintals of sugarcane per acre in 1963-64. During the year, 1,462 tubewells and 2,494 ordinary wells were built in the block areas.



## Two Plants for Cattle Feed

The Kaira District Co-operative Milk Producers' Union has set up a cattle feed mixing plant at Anand (Gujarat), the first of its kind in the country. The plant will produce 10 tons of balanced cattle feed mixture per hour out of locally available materials such as cotton-seed meal, groundnut cake, wheat bran and rice polish. The feed will be distributed to 55,000 milk producers and farmers in the Kaira district.

India will receive 850 tonnes of spray-dried skimmed milk powder (value Rs 14.3 lakh) for the Delhi Milk Scheme, and 1,500 tonnes of maize and 1,500 tonnes of sorghum for a cattle feed plant in Andhra Pradesh, under two agreements recently signed with the World Food Programme.

## SNIPPETS

DENMARK has given a loan of one million pounds (Rs 1.3 crore) for purchasing capital equipment for India. The loan will be repaid over 15 years at 4 per cent interest. The rocket testing base at Thumba near Trivandrum fired sodium vapour rockets for the first time. The experiments were intended to obtain meteorological data at the height of 70 to 150 kilometres above the ground. Twelve countries participated in the experiments. Jabalpur now has an All India Radio station. Fitted with a medium-wave transmitter, it will serve as an auxiliary to the Bhopal station of AIR. Three new teleprinter exchanges are being installed

BRIGHT SPOT

## RECORD EXPORTS

Exports in September touched Rs 75.5 crore—highest for any month. The total for April-September, 1964, was Rs 415 crore.

## KUNDAH SET FOR STAGE III

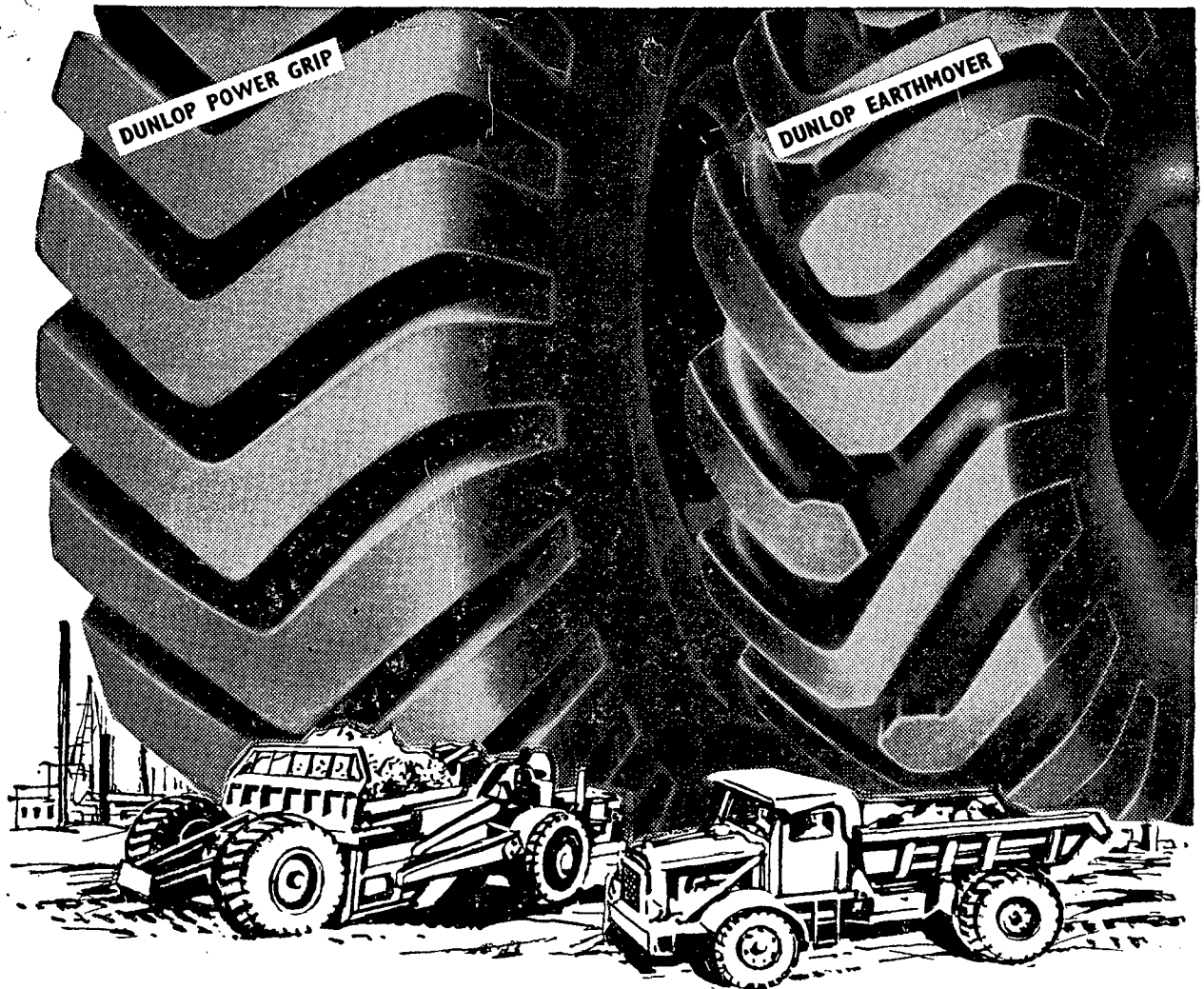
UNDER an agreement signed recently Canada will give a loan of 22.2 million Canadian dollars for stage III of the Kundah Project. The credit will be used for the construction of three additional power-houses with a total installed capacity of 190 MW, the addition of an extra generating unit in each of the two existing power-houses to increase their combined capacity by 55 MW, and other works.

In 1956, Canada had given 22 million dollars for the first two stages of the project. Rupee funds generated by the sale of commodities received from Canada under the Colombo Plan will also be used for the project, to the extent of 5 million dollars for the first two stages and 25 million dollars for the third stage.

The Soviet Union will supply designs and equipment to the 'B' thermal power-house at Harduaganj in U.P. under four contracts signed recently. The power-house will have an installed capacity of 100 MW.

at Kanpur, Nagpur and Coimbatore to extend the telex service. Five major cities—Bombay, Calcutta, Delhi, Madras and Ahmedabad—have already been connected, of which the first four will have their capacities raised to 500 lines each from the present 200. The new laboratories of the Instruments Research and Development Establishment of the Defence Ministry have been opened at Dehra Dun. Textile mills produced 441 million yards of cloth in September—a record in monthly production. The river Betwa is being bunded to provide irrigation to 30,837 acres of land in the Jhansi district of Uttar Pradesh.

# MASSIVE TYRES



## FOR MASSIVE WORK

The scraper and the dumper. Two powerful modern beasts of burden, indispensable for moving with continuous operation thousands of tons of earth at project sites. Tremendously heavy and strenuous work, requiring the toughest pneumatic tyres. Dunlop Power Grip and EM. 7 Earthmover tyres are proving themselves superbly in service ... at Koyna, Nagarjunasagar, Kosi,

Sharavathi, Beas ... in the iron ore mines of Bihar, Madhya Pradesh, Goa... in the farflung coalfields of the National Coal Development Corporation and at many other project sites all over India.

The tread pattern and especially tough casings of these Dunlop tyres were developed after prolonged field trials in different kinds of terrain in many parts of the world.

 **DUNLOP**

Longest tyre manufacturing experience in India

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## From Light to Darkness

MUCH is heard these days of private affluence and public squalor. The phrase, though it means something else in U.S.A. and Europe, is greatly applicable to our metropolitan cities.

Calcutta, Bombay, Delhi (and Madras, too) teem with great modern buildings and each month a new giant rises to dwarf the old stalwarts. Those who walk along the Jawaharlal Nehru Road in Calcutta (official name at present for the good old Chowringhee) come face to face with boards announcing 14-, 16-, 18-storey edifices. Not far from these sleek homes for big offices, one can see old crumbling buildings, with walls that had last seen paint a generation ago.

Then of course there are the slums and Calcutta's slums have earned greater international notoriety than Bombay's or Rio de Janeiro's. By common consent of those who hop continents, the world's worst drive is that from Dum Dum airport to the centre of the city.

THERE is only one occasion in the whole year when the drive is somewhat drained of its horror: the night of Diwali. The tip is: Arrive in Dum Dum after dusk that day. Even as the plane drops height to touch down, you will see, spread beneath you, a most dazzling panorama. The city lights are more than double the normal, and from thousands of feet above you will see the lovely patterns made by rooftops traced with lamps. A flare here and a flash there give you the sensation of a town bursting with merriment, and you are not far wrong. The darkness of new moon night fortunately hides the marshes and smelly holes, the hovels and the huts which have grown with urban lure and migration.

From amidst all this springs the joy of a people like the proverbial lotus out of the swamp.

A FOREIGN newspaperman, good student of India, told us a few days ago that he came to India this time

expecting, and fearing, scenes reminiscent of the Great Famine of the early 'forties he had read about. To his amazement, Calcutta at Puja-time presented to him a spectacle of well-stocked and gorgeously lit shops and bazars. The buying spree he witnessed did not fit in with the reports of scarcity he had heard.

But both are true: the lavish spending of the few well-to-do and the misery of the many. Supposed sugar scarcity and the fact that this is the year of Jawaharlal Nehru's death did nothing to cut down the buying and gobbling of sweets. Yet every morning in Calcutta there are long, long queues for wheat flour. The distance between the shirtless and those clad in starched *kurtas* is no smaller today than in the bad old days.

A Calcutta economist told us that rationing had been welcomed by the people for two reasons: because uncertainty is reduced and because the price of rationed rice is a half of that in the free market.

He had one interesting suggestion: that some kind of a means test be applied so that rice at controlled price goes only to those who most need it.

## In a Sentence

How would you sum up Mr Nehru's ideas in one sentence?

The editor of *The Hindustan Times* has given an excellent description:

Nehruism quite obviously means many things to many men, but the essence of it lies, in the domestic field, in building India as a modern, progressive country in the shortest possible time through means available within a democratic, non-coercive framework and, in the foreign field, the pursuit of a policy based on peace and coexistence and an attitude to international issues of non-partisan assessment of merits unburdened by alliances or entanglements.

A long sentence, it catches the essence of Mr. Nehru's policies, although it still misses the essence of the Nehru mind.



## IGNORAMAN Wants to Know

*Meeting-less days in*

*Delhi and*

*Eating less days elsewhere ?*

## Vaikunth Mehta

IT is men like the late Vaikunthlal Mehta who redeem public life of its coarseness. Few men can be found in any country more dedicated, more truly gentle and generous and more self-effacing. He was an epitome of the eleven virtues of the Gandhian vow. With these he combined vast knowledge. Within his small frame there was a surprising store of energy. His pioneering contribution to the co-operative movement are well known but how many know about his enthusiasm for cricket?

## Wrong Line

A press note said a few weeks ago: "The Minister for Labour and Employment told the Lok Sabha today that the wage boards for working journalists and non-working journalists had started work."

We have always envied non-working journalists, identified ourselves with working journalists and sympathised with non-journalist press workers (for whom a separate wage board has been set up).

# APPLES OF HIMACHAL PRADESH



**PRIDE  
OF  
PLACE  
106**



A million fruit trees are being planted in Himachal Pradesh this year. The soil and climate of the territory are ideal for horticulture, particularly apple cultivation.

Apples grow in abundance in the Himalayan region. Ambri, a variety of dessert apple, is known to have been growing in Kashmir for ages. Some decades ago Mr Alexander Couatts planted 100 varieties of apple in his orchard called Hillock Head in Mashobra near

Simla. As a result of trials conducted in the Kulu Valley (Punjab), Kotgarh (Simla hills) and the Kumaon hills (Uttar Pradesh) by the European settlers and missionaries a large variety of apples has now become popular in different parts of the country. Among the more important are Red Delicious, Golden Delicious and Newton Wonder in Himachal Pradesh, Blood Red and White Dotted Red in Kashmir, James Grieve, Blenheim Orange and Baldwin in the Kumaon hills and Rome Beauty and Glengyle Red in the Nilgiris.

In Himachal Pradesh the Golden Delicious variety was introduced by Mr S. N. Stokes, an American missionary, who started an orchard at the turn of the century in the Kotgarh area. Today the whole locality has turned into one of the world's best apple-growing areas.

For ages farmers in Himachal Pradesh have been growing food crops, but not getting enough returns because of the difficult conditions. The terrain is better suited for horticulture, and this is what the government has begun telling

farmers. Many kinds of help are given (see report inside) to help them to become horticulturists. A number of demonstration orchards, nurseries and soil-testing laboratories have been started for helping the apple growers in particular. They are given technical guidance, horticulture loans and marketing facilities. Groups of interested farmers are also sent to camps where they are given practical training in transplanting, grafting and pruning.

Because of favourable soil and climate, the authorities have selected the Shillai area (Shangrah block, Sirmur district) for large-scale growing of apples. Besides, apple orchards are also being raised at Kotkhaj, Rohru, Karsog, Rajgarh and some higher regions in the districts of Mandi and Chamba. To help both grower and consumer, co-operative marketing has been introduced and banking and cold storage facilities have been provided.

Courtesy : Himachal Pradesh  
Government