

YOJANA.

FOURTEENTH YEAR 16

AUGUST 23, 1970

40 PAISE



NO-15



The Maharashtra Agro Industries Development Corporation will soon put up India's first maize milling plant. This plant will process raw maize into flour, rava, soji and bran. Flour, rava and soji can either replace or supplement the corresponding by-products of wheat. The two-million rupee Buhler plant to be located in Bombay will process 100 tons of maize a day. The cost will be a third of the price of grinding wheat into 'atta'. Production pattern of the plant will be 55 per cent first grade flour for bakeries; 12 per cent second grade flour

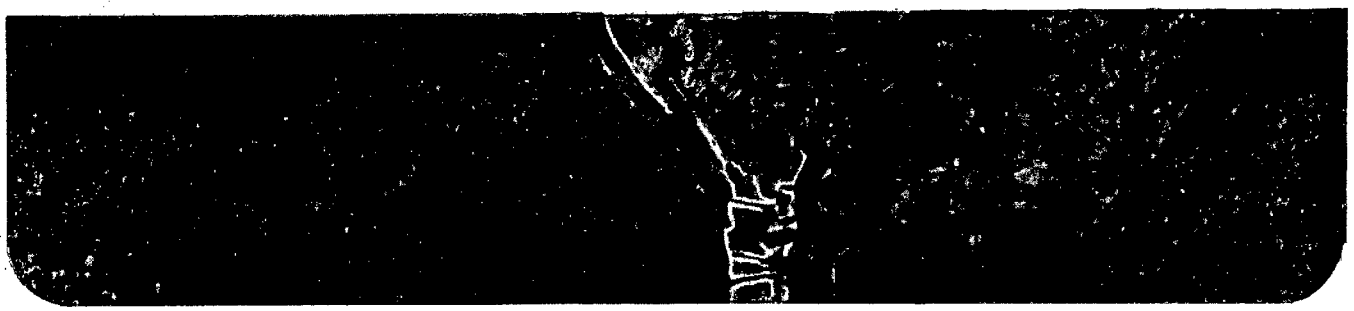
for chapatis and rotis; 15 per cent soji and rava; 10 per cent germs for extraction of edible oil; and 8 per cent bran. The germs and second grade flour could be alternatively used for animal feed.

A highly mechanised plant, the end product will come off bagged and ready for storage and despatch. A major part of this Buhler plant will be fabricated by L&T.

Buhler Division

LARSEN & TOUBRO LIMITED

P.O. Box 278, Bombay 1.



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LEST WE FORGET

Whilst it is true that...hereditary inequalities must go as being injurious to the well-being of the society, the unabashed assertion of the right of the hitherto downtrodden millions is equally injurious, if not more so, to the same well-being.

— Gandhi

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MEN AND DOLLS

MEN have taken piquant delight in the legend that Eve was carved out of Adam's rib—the left one, at that! Inherent in this belief has been the flattering implication of the inferiority of the female. Last fortnight this self-indulgent masculine pride received a severe jolt, certainly not for the first time, when a woman member of the Indian Foreign Service, the first career diplomat as distinguished from a person of public eminence, was named India's Ambassador-designate to Hungary. Coming in the wake of a statement by an elder statesman publicly supporting the continued domestication of the female, the news was upsetting for this lobby which seems to believe:

“A woman, a dog and a walnut tree
The more you beat 'em the better they be.”

In their own quiet and sanguine manner women have inflicted many reverses on the so-called stronger sex. In last year's I.A.S. Examination, a girl topped the list of successful candidates. More recently, an American medical researcher has demonstrated that men are weak at heart, for they are three times more prone to heart diseases than women. Still more slighting is the disclosure by a U. S. agency, which makes a fortune by recovering missing persons, that men go astray far more frequently than women: five males reported missing for every female. Whatever the counterpoint, women certainly outlive men. Also, women are gradually outnumbering men in the race for positions in different walks of life and work. The female invasion in professions like nursing and many other professions, and for jobs at reception desks, telephone exchanges and as secretaries and typists is so vigorous and complete that a male in any of these roles has come to strike a discordant note. Would anyone relish the idea of air hostesses being replaced by air hosts?

The slogan that a woman's proper place is the home smacks of a sense of defeat, rather than of genuine concern for the future of succeeding generations whom women are supposed to create, tend and attend. In seeking jobs and in entering unconventional fields of activity women are not deserting their homes and families. Only, they cannot be any more confined to the hearth, the smoky dens in which the flower of womanhood has so often perished in the past.

Inequality and injustice, long endured, have been banished for good. And, no harking back to the good old days, when women were only the personal ornament of the male, can be of any avail. No more can women be treated as pieces of interior decoration to be hidden jealously away from the public gaze. The

Constitution and the laws of the land have bestowed upon them position and privileges inferior to none.

The wind of change that swept India during the country's long and bitter struggle for independence created for our women the opportunity to assert their right to equality. Indeed, by their service and sacrifice they carved out for themselves an honoured place among those patriots whose names are enshrined in the annals of our freedom movement. It was natural, therefore, that on the attainment of Independence, the nation formalised their right to be regarded as equal partners in the glorious and exciting adventure of building up a new India. The Constitution which the Republic of India gave unto itself, enshrines the status of women as equal and full partners of the nation that was unfolding. By their splendid example and performance women have eminently justified this faith in the equality of sexes.

In point of fact, the progress of Indian women is an index of the country's own progress. Anyone trying to halt this advance is not only intent upon slowing down the nation's march towards progress but is also seeking to put the clock back. Time always flows in forward direction and therefore the skeptics stand not a chance of realising their dream. A futuristic vision of India can never be complete without the visualisation of women playing an equal part in shaping the destiny of the nation.

The men who think that women are dolls and deserve no better than a sedate existence under male suzerainty are indeed paranoids who cannot see beyond their noses. They seem to forget that the desire of Indian parents to have male children—rather not to have the female ones—sprang not from the needlessness of the female kind but from the grim awareness of the financial liabilities a female child meant in a male-dominated society. Many happy marriages have ended on the rocks and played havoc with innocent lives for the sheer chance of wives bearing only female children. Should a life of drudgery polluted and punctuated with male tyranny be the permanent lot of the Indian women? Or, should they come into their stride and liberate their parents and guardians from forced, and often unwilling, obligations dispensed and discharged at a discount? There can be no doubt about a sane man's choice between the two alternatives that are poles apart in their effect and implications. And all said and done, the choice no more remains in the hands of men. Time has overtaken them, and history is dictating its own course. The prolonged epic of the women's suffering is fading into the past as the twilight of a new dawn smiles on them.

PLANNING : CHARTER OF ORDERLY PROGRESS

The Fourth Plan represents a conscious, internally consistent, and carefully thought out programme for the most efficient exploitation of resources possible in existing conditions.

... **INDIRA GANDHI**

PLANNING is the vital instrument we have adopted to realise the social objectives enshrined in our Constitution. Through the Five Year Plans we have already achieved a significant increase in the national income in the past eighteen years and laid the foundations of technological advance. The Plan is fast modernising our agriculture and strengthening and diversifying our industry. Above all, it has reinforced national unity and purpose.

The attack on our territory in 1962 and again in 1965 forced us to modify the pattern of national expenditure. Before we could reconcile the competing claims of development and defence, drought struck us. Foreign credits became uncertain. Recession followed. All these seriously restricted our freedom of choice. We had to divert our energies to fight drought and near-famine and their aftermath. For some time, long-term planning had to be virtually suspended. But we succeeded in turning adversity to good use. We concentrated on import substitution which further enlarged our industrial base. This, along with the need for more foreign exchange, put us on the path of a more fruitful export drive. We maintained our investment in development work, especially in intensive agricultural programmes.

A new period has now opened. There is a welcome upsurge in the economy, and the increases in agricultural production have brought us nearer to self-sufficiency in foodgrains. But, inevitably, there are other problems, and a fresh challenge to face. Rural disparities have increased, partly owing to the very efforts we have made to move rapidly towards self-sufficiency in food, and partly owing to a certain tardiness in the matter of implementing the land reforms. Although the industrial recession has waned, new industries are not coming up fast enough and unemployment, especially of technically trained persons, continues to be acute. We have a larger and, understandably enough, a more articulate population.

Text of the Preface to the Fourth Plan (1969-74) by the Prime Minister, who is also Chairman of the Planning Commission.

Planning is the method to which we are committed for meeting such challenges. We have carried our three Five Year Plans. Each Five Year Plan has addressed itself specially to problems which have emerged either because of new political and economic developments in the country and in the world, or as a consequence of progress already achieved. The priorities and the emphasis have necessarily changed and have had to be adjusted from Plan to Plan, but we have always kept in view our long-term objectives.

The Fourth Plan represents a conscious, internally consistent and carefully thought out programme for the most efficient exploitation of our resources possible in existing conditions. The basic aim is to raise the standard of living of the people, especially of the less privileged sections of society. Our planning should result not only in an integrated process of increased production, but rational distribution of the added wealth. The overriding inspiration must be a burning sense of social justice. While increased production is of the utmost importance, it is equally important to remove, or reduce, and prevent the concentration of wealth and economic power. The benefits of development should accrue in increasing measure to the common man and the weaker sections of society, so that the forces of production can be fully unleashed. A sense of involvement, of participation by the people as a whole is vital for the success of any plan of rapid economic growth. This can only be evoked by securing social justice, by reducing disparities of income and wealth, and by redressing regional imbalances. A reorientation of our socio-economic institutions in this spirit is, accordingly, a first necessity.

One year of the Plan has already gone by. Between the Draft Plan and the present document certain important changes have been made. The projected investment in the public sector has been stepped up, so as to enable us to undertake a larger and bolder agenda of work. New schemes have been added to help the small farmer throughout the country, especially in the unirrigated areas. The emphasis is squarely on areas that have hitherto

suffered from neglect. Transport and housing problems in urban regions will receive more attention. A small but significant beginning is also being made with special programmes for children.

The Fourth Plan thus provides a necessary corrective to the earlier trend which helped particularly the stronger sections in agriculture as well as in industry to enable them rapidly to enlarge and diversify the production base. In the long run, the full potential of growth cannot be realised unless the energies of all our people are put to profitable use. The emphasis on spreading the impetus and benefits of economic growth to the weaker sections is thus necessary both in the interest of equality as well as growth. The Plan will now assist the less prosperous sections of our farming population to improve their position and make a yet bigger contribution to the national economy. Great industrial activity, and the modernisation of agriculture such as is proposed through the wider use of electric power and the adoption of intensive methods of cultivation in both irrigated and dry areas, would mean that a larger proportion of young people seeking jobs could find employment nearer home. At the same time, there are some new schemes, e.g., for a network of service centres in the rural areas, which will open out opportunities for young entrepreneurs.

The nationalisation of the fourteen big banks is evidence of our determination to bring a greater volume of resources within the area of social decision. It has effected a major change in our economic structure. It enables us to pay more attention to the "small man's" needs, and it restricts the scope for the monopolistic operations of the privileged few. Among other areas where social considerations have still to make a comparable impact are the enforcement of land laws, the management of public sector enterprises, and the toning up of the administration as a whole.

There can be no doubt that the responsibilities devolving upon the public sector—without diminishing those of the private sector, in our mixed economy—will grow in range and volume. Socialism involves a reordering of society on a rational and equitable basis and this can only be achieved by assigning an expanding role to the public sector. Following the reorganisation of credit policies resulting from the nationalisation of major banks, the public sector can be expected more and more to occupy the commanding heights of the economy. It alone would be in a position to undertake investments of the requisite magnitude in such industries of vital importance to us as steel, machinery, machine tools, power generation, ship-building, petrochemicals, fuels and drugs. Naturally, the administration of public enterprises, poses some problems of its own (here as in other countries) but they are not insuperable and will be overcome as we gain experience.

In addition to the fight against poverty and economic inequalities, the Plan seeks to enlarge the

area of self-reliance in terms of financial resources and technological inputs. Here, too, the public sector has an important part to play. Besides striving to set an example in better management methods and ushering in a new pattern of worker-management relations, the public sector should increasingly base itself on domestic know-how. The public and private sectors have both been too ready to look to foreign collaboration not only for financial but for technological resources. Such collaboration may be unavoidable when new processes have to be introduced, but excessive reliance on it has induced a state of mind which inhibits the development of our own technological skills and managerial talents. We should rely more and more on our own machinery and technical know-how, even though it may entail some initial risks and difficulties. This does not mean that we should be indifferent to the latest developments in technology, especially in the fast growing sectors. But it would be folly to forget that a nation's strength ultimately consists in what it can do on its own and not in what it can borrow from others.

There has been a noticeable change in recent years in the climate of international economic co-operation. It is now increasingly reaffirmed by responsible sections of public opinion in the lending as well as in the borrowing countries that development assistance should not be regarded as an instrument of foreign or commercial policy but as a means of correcting dangerous imbalances in the world economy. However, "aid" is in reality credits which have to be repaid; and even if such credits are available on terms which are concessional in some respects, they often have features which are not consistent strictly with the objective of development. For some time to come we can benefit by more external credits, especially untied credits on concessional terms. But we have to take note of international realities as they are and reduce our reliance on foreign credits.

The policy of self-reliance does not mean that we should be actually reducing imports from the rest of the world. In fact, as the pace of development quickens, imports of industrial raw materials, intermediates and special components will go up. But we propose to pay for them increasingly through our own earnings from exports. Economic independence therefore, hinges to a considerable extent on how we fare in export markets; and our export performance in turn would depend on the state of our economy at home and our success in developing a purposive, planned approach to the problem.

The complaint that planning has led to a rise in prices and that planning is, therefore, harmful, is misconceived and unfounded. Consumers with fixed incomes, particularly in urban areas face hardship when prices rise; but at the other extreme, when prices are reduced or depressed to uneconomic level, producers suffer and employment sags. If development means larger real incomes to ever larger numbers of people, some price increases can hardly be avoided. What we

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An Integrated Development Agency Alone Can Help SMALL FARMERS

PROF. D. R. GADGIL

THE concept of an agency for the development of small farmers assumes that, by and large, programmes and schemes of assistance have proved successful in a number of areas, as far as the bigger farmers are concerned, but this is not true in the case of small farmers. For this reason a special effort has to be made to remedy this. It is also assumed that a long-term programme of action with appropriate changes in procedures and in organisational set-up will enable the potentially viable farmers to become, in fact, viable in the near future.

The small farmer is viewed as producer in ordinary or mixed farming. The programme should, therefore, be mainly directed towards broadening the base of production of the small farmer, either by more intensive use of land surface or adding new types of activities, particularly those relating to animal husbandry. Because of the pressure on land in all parts of the country, there is very little scope for increasing the physical area of the farmers' holdings.

So the basic task of the small farmers development agency is then to inquire into the deficiencies and inadequacies of the existing programmes and schemes with regard to the small farmers' needs and to take suitable measures in the areas of credit, sale and supply of technical knowledge to these farmers. The existing agencies in various areas, however, will continue to operate

and on the whole no radical changes in their procedures or operations will be made.

Organisation

The development agency may, however, have to meet some special requirements in some cases. Where the small farmers are, in bulk, share-croppers or insecure tenants, effective land reforms are pre-conditions to successful operation of these agencies. In some other areas the small holdings need be consolidated. The plan of operating with existing agencies may not again prove effective, specially where in the credit field, cooperative, public or private sector agencies do not exist to an adequate extent. In such cases new agencies may have to be created. Special attention has to be paid to this aspect, as the programmes of assistance to dispersed small producers must be related to an effective organisational structure.

In view of the importance of credit in these programmes, more attention has been paid to the organisational structure for credit. But as the work of the agency proceeds, other problems, such as, those of linking marketing with credit, or of organisation of storage, sale and supply will also have to be solved. At the organisational level the structure and operation of a co-ordinating body is absolutely necessary for effective co-ordination and prompt response of authorities at different levels.

Initially the work of the small farmers development agency may proceed to a large extent on an

ad hoc basis. It is hoped to be connected shortly with the district plans. The local programmes of the development agency must be derived from the State and district plans so that these can contribute substantially to the development plans of the State. The system of communications and other infrastructure facilities within the area, the development of credit and market centres, and the plan for location of centres of industrial activities must be derived from the district plans. This applies equally to programmes of conservation and development of natural resources, such as soil conservation, afforestation or development of irrigation facilities. The water management policies, the general agricultural programme, particular crop programmes, and the schemes relating to the animal husbandry will, however, have to be derived from the State Plans.

Potentially Viable Farmers

Let us now look at the category of "potentially viable" farmers in the context of the recent developments in agriculture. The factors like the increased use of water, especially of ground water through tubewells and pump sets and the availability of high-quality seeds and related programmes of agricultural practices have pushed the limit of viability towards smaller physical area than before in most regions. If the category of the potentially viable farmer can be made viable through the development programmes, oriented towards producer activities, production can be increased to a considerable extent.

Non-Viable Farmers

Both the non-viable farmers and the agricultural labourers depend on wages as the main source of income. In terms of land, the production base of these cultivators is so narrow that efforts of the institutions like small farmers development agency cannot make them viable. Small-sized fragmented holdings make it more difficult to apply improved technology and practices. The land base of these non-viable farmers could be profitably used for animal husbandry. However, in case of the much larger class of landless agricultural labourers these

Edited version of a speech at the Workshop on Small Farmers and Agricultural Labour, held in New Delhi in July, by the Deputy Chairman of the Planning Commission.

schemes are not applicable, and as far as the large section of the non-viable farmers are concerned, it is ineffective. So even for the vast bulk of the non-viable farmers and landless labourers, the basic effort should be directed at providing adequate employment throughout the year at adequate wages. This is related to the problem of generating additional and diversified employment in the rural areas through planned development.

It is a fact that lands in possession of non-viable farmers are not used to the optimum level. The obvious reason for this is that, the plots are so small and inadequate that programmes of technical improvement cannot be taken up. So the improvement of economic lot of the non-viable farmers will essentially depend on some measure of pooling land resources and increasing the minimum area under production. Development Plans in India have so far neglected this aspect. If this problem has to be tackled, necessary steps regarding land reforms and consolidation of holdings have to be taken up. In the matter of land reforms a policy will have to be adopted regarding leasing in and leasing out practices. With regard to consolidation it should be kept in view that the consolidated fields are so laid out that the lands of the small holders, especially those of the un-economic holders, are brought together conveniently.

Rural Employment

A programme for development of producers' activities is to be necessarily related to the occupation of an individual producer. On the other hand, providing larger employment is an objective which has to be achieved and planned in the aggregate. So the problems of the non-viable farmers and of the landless farmers have to be tackled differently. After suitable calculation regarding availability of total employment from various sources, additional programmes have to be undertaken. The Rural works programme cannot meet this need adequately. During the Third Plan these programmes fell much short of expectations with regard to providing additional employment suitable to the needs of the local population and supplying utility benefits. When not considered as relief works, rural

works or any other employment giving programme must be conceived of as a developmental activity and must be related to the total development plan of the district or the areas. Development activities are undertaken by a variety of authorities and units in the public and private sectors. The extent of development programmes in the public sector would be apparent from the details of the district plan. To the extent to which private sector activities are institutionally financed some assessment regarding their dimension and nature could also be made. In this context, the activities of the new institutions like the small farmers development agency would also further activate the economy and add to the quantum of investment made. All this would have to be estimated in terms of its employment-generating effect. The real crucial problem in organisation, however, is co-ordination and matching. In this context the location and time of generation of employment opportunities, has to be coordinated with the requirement of local labour. The ultimate aim of such efforts in relation to non-viable farmers and landless labour will be to provide opportunity of employment to every unit of employable labour at a minimum wage for a minimum period during the year. The organisation has to take up the task of co-ordinating efforts of various agencies at different levels.

Co-ordinated Approach

For this, the supreme co-ordinating authority will have to adopt a flexible approach regarding the local development plans aiming at developing the resources of the region, providing infrastructure facilities, and creating in turn considerable employment opportunities. The coordinated development activities can solve the problem of utilising the large land surface that falls between the protected reserved forest areas and cultivated lands.

The problem of rural artisans, however, differ radically from those of the small farmers. Whereas the agricultural sector can avail itself of the technological advances most of the rural artisan industries have not achieved these benefits. Effective programmes for improving the techniques and products, as has been adopted in the case of products of the

SOUTHERN RAILWAY TO INTRODUCE MADRAS-CALCUTTA CONTAINER SERVICE

From Our Madras Correspondent

The Southern Railway is planning to introduce a Container Service shortly between Madras & Calcutta. The Railway has paid increasing attention to "containerisation" to meet the demands of fast growing traffic. Container Services are already in operation between Madras and Bangalore, Madras and Bombay, and between Bangalore & Bombay.

Goods trains on the trunk routes and a number of passenger-carrying trains have been dieselised to provide for faster movement of traffic. Among the passenger-carrying trains dieselised are Madras-New Delhi Grand Trunk Express, Madras-Howrah Mail, Madras-Bangalore Brindavan Express, Madras-Cochin Mail, Madras-Dadar Express and the Madras-Shoranur West-Coast Express. The Southern Railway has a total of 212 diesel locomotives on Broad and Metre Gauge sections.

In 1969-70, the Southern Railway carried 221 million passengers, 89 million of them on the suburban lines. The net tonne-kilometres moved over the Railway for the same period was about 8,361 millions.

handloom weavers, will have to be formulated for the traditional rural industries. If the industries are not helped, the general development of the region will not itself arrest the decay of rural artisan industries.

So ultimately the formulation of plans of development for the small farmer, the landless labourer or the rural artisan have to be essentially related to the district plan and to the specific local techno-economic circumstances. The superstructure of Central and State Government agencies, controlling these units, has to act in close cooperation with the local institutional agencies. The participation of local Panchayati Raj and Cooperative Institutions, academic personnel and technicians in the local area, is vitally essential.

INTENSIVE AGRICULTURE IS FOURTH PLAN'S STRATEGY

AT the time of Independence, India's agricultural situation was precarious, and substantial quantities of foodgrains had to be imported—2.9 million tonnes in 1948, 3.8 million tonnes in 1949, 2.1 million tonnes in 1950, and 4.8 million tonnes in 1951 when the First Plan was launched. It was then estimated that out of a total geographical area of 327 million hectares, the gross cropped area was about 132 million hectares. Food crops covered an area of 101 million hectares and commercial crops 21 million hectares or 77 per cent and 16 per cent of the total cropped area respectively. The remaining area was covered by plantations and other crops. The estimated population in 1950 was over 353 million and the production of foodgrains stood at 54.9 million tonnes.

The process of development initiated with the First Plan brought about significant increases in production of agricultural commodities during the 18-year period. The production of foodgrains increased from 54.9 million tonnes in 1950-51 to 94 million tonnes in 1968-69, an increase of 71 per cent. Production of sugarcane during the same period increased from 6.9 million tonnes to 12 million tonnes showing an increase of 73.9 per cent and oilseeds from 5.1 million tonnes to 8.6 million tonnes (1964-65), an increase of 66.7 per cent. Cotton production went up from 2.9 million bales to 5.7 million bales (1964-65), and jute production from 3.5 million bales to 6.0 million bales (1964-65), the percentage of increases being 130.8 in the case of cotton and 77 in the case of jute. The average growth rate of agricultural production in these years works out to about 3.8 per cent per annum.

Under the First Plan a sum of Rs 357 crore, out of the total plan outlay of Rs 2,356 crore was allocated for agriculture and community development. The output figures

for selected agricultural products in 1955-56 were: (million tonnes) foodgrains—69.2; sugarcane (gur) — 7.3; oilseeds—5.6; cotton (million bales) 4.0 and jute—4.5. More than any other factor, the increases in agricultural production helped in stabilising the economy and paving the way for a higher rate of development during the Second Plan.

Second and Third Plans

An outlay of Rs 568 crore was provided for agriculture and community development in the Second Plan. Agricultural programmes were intended to provide adequate food to support the increased population and ensure supply of raw materials needed for a growing industrial economy. The programmes were further designed to make available larger exportable surpluses of agricultural and industrial development.

By the end of the Second Plan, the index of agricultural production (base 1949-50) rose to 142, the index of foodgrains production being 137 and that of other crops 153. Despite two years of unfavourable weather conditions, agricultural production recorded an overall increase of 21 per cent. The production of some principal agricultural commodities in the Second Plan (was in million tonnes): foodgrains—82.0; sugarcane (gur)—1.2; oilseeds—7.0; cotton—5.3 million bales and jute—4.1 million bales.

Under the Third Plan an allocation of Rs 1,460 crore, out of a total Plan outlay of Rs 10,400 crore was provided for agriculture, including minor irrigation schemes, soil conservation and co-operation. Performance in the field of agriculture during the first three years was unsatisfactory. The slow rate of growth not only depressed the growth of the economy but also led to an alarming increase in dependence on imports of foodgrains and other agricultural commodities. During the

Third Plan period, the country had to import 25 million tonnes of foodgrains, 3.9 million bales of cotton and 1.5 million bales of jute to supplement indigenous production.

In 1964-65, however, there was marked recovery in foodgrains output, followed by a spectacular breakthrough in 1967-68 when the production reached an all-time record figure of 95.1 million tonnes. This was possible mainly because of the introduction of high-yielding varieties. Hybrid seeds began to be widely adopted, while propagation of high-yielding varieties over fairly large areas was taken up as a full-fledged programme from *kharif* 1966 onwards in the three Annual Plans (1966-69).

On the eve of the Fourth Plan, the coverage of area under high-yielding varieties was estimated at 9.2 million hectares, nearly 9.3 per cent of the total area under cereals.

The Fourth Plan provides an outlay of Rs 2,728.2 crore for agriculture and allied sectors. The strategy of agricultural production is primarily dependent on intensive agriculture. To achieve the objective of a sustained growth rate of about 5 per cent per annum in agricultural production over the next decade, the Plan lays greater emphasis on co-ordinated research, expansion of irrigation, reorientation of irrigation practices and expansion in the supply of inputs. Emphasis is also laid on intensive efforts in selected areas for raising the yield levels of major commercial crops, increasing intensity of cropping and improving the agricultural marketing system.

It is proposed to build up sizeable buffer stocks as a safeguard against the uncertainties of food imports and fluctuations in agricultural production as also to even out the supplies of foodgrains and maintain stability in prices.

With the new strategy, it is hoped that the production targets of 129 million tonnes of foodgrains, 15 million tonnes of sugarcane, about 10.5 million tonnes of oilseeds and 8 million bales of cotton will be achieved. At the same time, conditions will have been created for building up a viable agricultural economy.

INDIAN WOMEN CAN PLAY A VITAL ROLE IN SOCIAL TRANSFORMATION

MUKUL BANERJEE

THE Magna Carta, the British charter of democratic liberty and equality, was framed in the year 1215. But the women of England had to agitate and fight for the right of suffrage for nearly 700 years before it was conceded. The Diet of Switzerland rejected the Bill on Women's suffrage over 26 times, and even as yet the women of that country do not have the right to vote. There are other countries, too, where parliamentary democracy is quite old but even then all their citizens do not enjoy the same privileges and rights under their constitutions. Compared to these, the Constitution of India is hardly two decades old, but the great framers of our Constitution were fair and liberal enough not to make any discriminations on the basis of caste, creed, sex or status.

Women in India enjoy the same rights and privileges as men under the Constitution. This is not so merely in theory. The Prime Minister of India, which is the largest democracy in the world covering a population of over 550 million, happens to be a woman. It was India's proud privilege to have a woman of this country as the first woman President of the U.N.O. The women of our country have held the positions of Governors, Chief Ministers of States, Speakers and Deputy Speakers of Legislatures and Ministers in the Central and State Governments.

It is not only in political or public life that Indian women have established themselves with honour and distinction, they have also earned recognition in other spheres like administration, judiciary, law, and medicine. They have even excelled in all-India competitive examinations. Incidentally, two girls topped the list in IAS examination last year.

However, despite the fact that our womenfolk have made their mark in different spheres of life and proved themselves worthy of the rights and privileges given to them, they continue to be hounded by many of the age-old social and religious prejudices and restrictions. The mass of women in rural as well as in urban India does not enjoy the opportunities given them, firstly because of their own blind faith in the age-old conventions and social and religious orthodoxies, and secondly because quite a majority of our men are not progressive and broad-minded enough to concede to women, in actual practice, the freedom and equality that is their due by legal and constitutional sanctions.

Mass illiteracy also is responsible for this. A greater reason, perhaps, is that prejudices die hard. Old traditions, conventions and prejudices are often found to have as much grip over the educated sections of the people as they have over the uneducated. Take

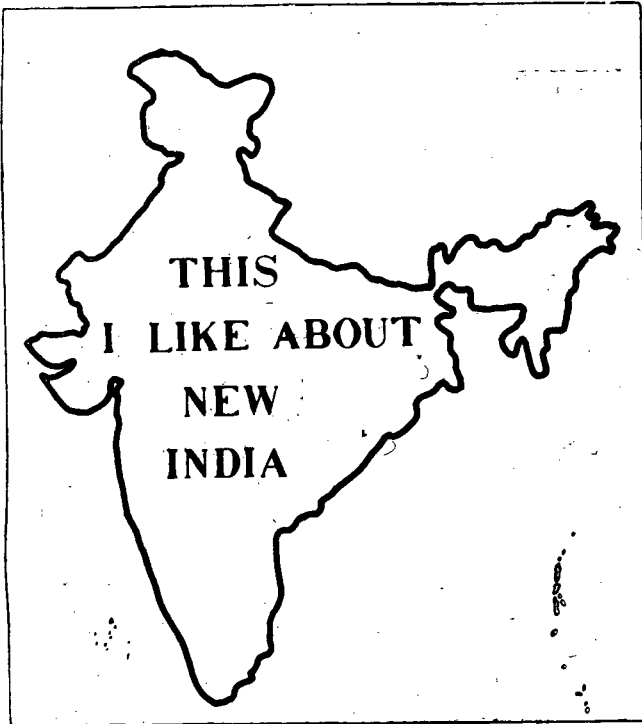
for instance the custom of dowry. It is prevalent not only among the illiterate rural masses, as a matter of social convention, but also among the most enlightened and educated city folk, though under some other garb.

India has woken up after centuries of slumber and is poised today to march forward with the progressive world. In order to keep in stride with others, she has to discard many of the out-dated and out-moded customs and conventions that still persist in our social life and operate against women. A woman today is no longer a liability. She is becoming rather an asset to the family in the economic sense, and in some cases she even makes a sizeable contribution to the family income.

Confucious, the great Chinese philosopher, said many centuries ago that "If you want to have tranquillity in the state there should be tranquillity in the society. If you want tranquillity in the society there should be tranquillity in the family..." Similarly, if we want to revolutionise our society and bring in a new social transformation, our families and their ways of living have also to be revolutionised. Here the women of our country have a very important and vital role to play. No longer passive units of the family, they have to take the initiative of moulding the family lives in such a manner that the families can contribute their maximum towards the onward march of the society. Not only this, they must also be bold enough to protest and agitate against customs which hinder social progress. If necessary, they should organise themselves and start boycott movements against dowry system, child marriage, wasteful expenditure over social functions, and such other evils.

However, these are only a few evils gnawing at the vitals of our society. Life in India today is a challenge in many other respects. Rising prices, hoarding and blackmarketing are some of the other evils which have taken a stranglehold of our society and are a source of constant worry to all of us, especially to women who have to run the house within a limited budget. However, a woman can effectively fight these evils if she is willing to accept austerity to some extent. By avoiding wasteful expenditure, and last but not the least, by inculcating the spirit of *Swadeshi* in the younger generation she can go a long way in lessening these evils.

No country, particularly an over-populated and under-developed country like India, can progress until and unless her people are imbued with a high sense of patriotism. Women account for half the population of this country, and if they gear up themselves to action, with the determination to go forward, come what may, the future of this country would be bright beyond doubt.



G D. KHOSLA

Our Constitution

IT is easy to criticise and find fault with our friends, easier still to carp at those who disagree with us politically or socially. It gives one a sense of superiority to be able to say that the woman next-door or the man holding a position of power is lazy, unimaginative, corrupt—in fact everything that the speaker isn't.

At dinner parties and social gatherings, in club bars and railway trains, I am repeatedly told that the country is going to the dogs, and it is time democracy were scrapped, and a good, strong dictator started running our affairs. The force and the conviction with which this judgement is pronounced appeals me, and the alarming thing is those who pronounce it are often men and women of intelligence and reason, men who have risen in the world, made money and lived in great comfort, women who have led a life of luxury and enjoyed the benefits that civilised society provides.

They do not pause to consider the consequence of what they advocate. For a century and a half, what we wanted most of all was to be free of the yoke of foreign rule. We wanted freedom, freedom to speak and to write, freedom to move about our country, freedom to assemble and protest, freedom to choose a profession or trade and pursue it, freedom from arrest without due process of law.

This freedom we acquired and enshrined in our Constitution. We have enjoyed it (subject, of course, to certain reasonable restrictions enumerated in the Constitution itself) in full measure for more than 23 years, and we shall continue to enjoy it as long as we remain

a democracy and choose our rulers ourselves by voting for them.

To me this is the most valuable asset of New India and nothing can make up for its loss. Ours is not a country where you can be shot or imprisoned without trial, where you are afraid to criticise someone in high authority, or look over your shoulder to see if someone is shadowing you. Prices in New India are high and life is expensive. The climate is often unkind. But I do not feel the need of sneaking out and seeking asylum in a foreign country. In short, I feel a free man, and this is worth more to me than a thousand years of benevolent dictatorship.

What is benevolent dictatorship? People tell me, it means honest and efficient government; low prices, even distribution of consumer goods and justice for all. But does it? Which dictatorship has provided these benefits and for how long has the gloss lasted?

Whenever I feel unhappy about any shortcoming in our achievements, any seeming flaw in the policy of the government in power, I make a protest, but I remind myself that as long as we remain a democracy, I shall be a free man, and the government is doing what the majority of my countrymen wish and desire.

A. P. MUKERJIE

Political Freedom

THE thing that impresses me most in today's India is the full freedom enjoyed by all people to subscribe to any political ideology. There is absolutely no restriction in this regard from the Government. It would not be an exaggeration to say that India today has an ideal democratic climate. This is in sharp contrast to the days of British rule when it was a crime even to utter 'Bande Mataram' at a public place. Today we find people holding rallies and public meetings, taking out processions and shouting slogans. People are able to express themselves freely on all issues. They can walk to the Prime Minister's residence for the redress of their grievances. One is at liberty to practice one's freedom of speech.

S. K. CHANDRA

Story of a Road

RECENTLY I got an opportunity to go to my village after a lapse of ten years. At that time the journey was tedious and troublesome. But during this visit when I got down from the train I could not believe my eyes that it was my old village station. It had undergone a change in every respect. But what amazed me most was the new road. The old muddy road had disappeared and in its place a new metalled road was lying before my eyes shining in the midday sun. I could reach my home from the station by bus within fifteen minutes without covering my body with dust. The journey was comfortable. This was unimaginable ten years ago. It seemed to me that this road and the bus were the symbols of modern India.

PAKISTAN'S FOURTH FIVE YEAR PLAN

On July 1, Pakistan launched her Fourth Five Year Plan, 1970-75. The original draft was presented to the National Economic Council of Pakistan in February last and a revised version with certain modifications was presented to the Council in June.

The final Plan, released on July 1, has taken a cautious note of the climate of political uncertainty due to the impending General Elections, the first the country will have since its inception in 1947.

In this Report, YOJANA presents the highlights of the Plan.



A YOJANA Staff Report by
PRATIMA GHOSH and
HAMEEDUDDIN MAHMOOD

Approach and Strategy

THE guiding principle of Pakistan's planned economic development over the past two decades has been to seek the "maximum possible economic growth through encouragement of private enterprise, backed by provision of social, physical and institutional infrastructure by Government." The goal of equitable distribution of incomes was held in abeyance till such time as "the level of production had risen sufficiently to make such distribution possible."

In the fifties the country's economy stagnated and production hardly kept pace with rise in population. Even the per capita income declined. Despite a three per cent annual increase in per capita income during the Second Plan (1960-65), the country's staggering economic problems continued to baffle economists, even though foreign assistance continued to pour in after 1965. The constraint on resources became so acute that the economy was almost at a standstill. Pakistan was thus compelled to neglect the vital social sectors of education, health and housing. The urban communities were squeezed to the last drop in the taxation drive to salvage the economy. The conflict between economic growth and social justice

thus became very acute. The decline in real wages agitated the workers while the small farmers gained little from higher agricultural productivity "which was confined mostly to the larger commercial farmers". The absence of balanced development caused resentment in less developed regions which complained of neglect.

The Pakistani planners have attributed the 1969 mass stir to this economic gloom and have acknowledged that the events of 1969 "represented a forceful articulation of the deeply felt aspirations of the masses".

A shift in the outlook on planning became imperative and could be seen in the "Socio-economic objectives of the Fourth Plan" released in November 1968. It dawned on the planning strategists that the people at large would rather have "a slower rate of growth than uneven income distribution". Time and experience had taken their toll but did succeed in bringing home the prior significance of the social sector in economic development and of the sharing by the widest margin the fruits of economic growth. Hence, a corrective has been sought to be provided in the Fourth Plan which has its accent on the social sector and a great emphasis on public sector and balanced development.

The Pakistan planners have added a measure of realism by underlining the fact that "economic planning is an integral part of the political and social system and must draw its inspiration and its objectives from it. With the revival of political life, it is imperative that the new development strategy should be conceived and implemented within the new political framework."

*All figures are in Pakistan currency. Rs 100 (Indian)=Rs 63.4920 (Pakistan)

STRATEGY

The Plan seeks to achieve self-reliance in essential fields and to reconcile the social objectives with economic objectives. The main planks of the development strategy are :

1. A more balanced development effort directed towards securing equitable distribution of economic benefits will be undertaken.
2. Social sector programmes will be expanded.
3. Specific policies will be adopted to enlarge the role of public sector and to reduce concentration of income and economic power.
4. Fiscal policies will be initiated to narrow down the differences between maximum and minimum incomes.
5. Labour-intensive technology will be developed to increase the employment potential of the economy.
6. A specific consumption plan will be adopted to make the essential commodities available to the common man at reasonable prices.
7. A comprehensive income and price policy will be evolved to protect the workers and consumers. Luxury consumption will be restrained by steeper taxation and limits imposed on luxury housing.
8. Direct taxation will be resorted to increasingly to mobilise additional resources and ensure distributive justice.
9. Specific measures will be taken to stimulate the flow of bank credit towards the middle class and to fix a credit ceiling.
10. Free universal primary education will be ensured by 1980.
11. Every Union Council will be provided with at least one medical officer and a dispensary.

TARGETS

Pakistan's Fourth Five Year Plan sets out the following specific targets.

1. Annual growth rate of 6.5 per cent in GNP is envisaged, entailing an increase in average per capita income from Rs 565 in 1969-70 to Rs 675 in 1975-76.
2. Disparities in per capita income between various regions are to be reduced at the fastest possible rate.
3. Per capita consumption of foodgrains will be increased from 15.5 to 17 ounces per day and of cotton textiles to 20 per cent, sugar to 13 per cent and edible oils to 16 per cent. To achieve the above target in foodgrains consumption, rice production will have to be increased by 5.7 million tons, wheat by 2.6 million tons, and foodgrains by 8.5 million tons.

FOURTH PLAN AND EAST PAKISTAN

Taking cognizance of the ever present feeling of injustice to the Eastern Wing, Pakistan's Fourth Plan provides major participation to this Wing and thus the imbalances created in the economy and the lurking disparities between the two wings are being sought to be redressed.

East Pakistan's share in the development expenditure during the Third Plan was a meagre 37 per cent. This will now be raised to 52.5 per cent, which is still short of the 54 per cent share suggested under the population formula by East Pakistan economists.

The public sector development expenditure in East Pakistan will be increased from Rs 1,130 crore in the Third Plan to Rs 2,940 crore—an increase of 166 per cent—in the Fourth Plan. The public sector spending in East Pakistan had fallen short by Rs 240 crore in the Third Plan.

The annual acceleration in the total developmental expenditure in the Eastern Wing during the Fourth Plan will be 19 per cent compared to 4.5 per cent in the Third Plan.

The Plan recognises the need for energising the private sector in the Eastern Wing. It has also highlighted the necessity of improving the efficiency and organisation of public corporations in this Wing. A certain degree of decentralisation in the implementation of programmes has also been suggested.

A sum of Rs 150 crore has been provided outside the Plan for flood control measures in East Pakistan.

The following table gives the regional allocations in the Fourth Plan:—

	<i>(Rs. in crores)</i>		
	<i>Total</i>	<i>East Pakistan</i>	<i>West Pakistan</i>
<i>Plan allocation :</i>			
Public Sector	4,450	2,790	1,660
Private Sector	2,600	1,000	1,600
	<u>7,050</u>	<u>3,790</u>	<u>3,260</u>
<i>Outside the Plan :</i>			
Flood Control	150	150	—
Indus Basin	300	—	300
	<u>450</u>	<u>150</u>	<u>300</u>
<i>Total Development Programme :</i>			
Public Sector	4,900	2,940	1,960
Private Sector	2,600	1,000	1,600
	<u>7,500</u>	<u>3,940</u>	<u>3,560</u>

4. 7.5 million new jobs will be provided compared to 6.5 million new entrants to the labour force.
5. More equitable distribution of income and wealth will be aimed at by : (i) limiting the concentration of industrial wealth through increased taxation of upper-income groups, (ii) fixing minimum wages and salaries, (iii) narrowing down the present differentials in salary structure; and (iv) provisions of more equal opportunities in economic and social fields.
6. An income and price policy will be evolved to protect the rise in per capita income from price erosion.
7. An annual growth rate of 8.5 per cent in exports is envisaged.
8. Domestic contribution to development financing will be increased by saving and reinvesting 1/5th of the additional income generated during the Plan. Domestic effort will have to contribute 79 per cent of the total development expenditure by 1974-75.
9. Greater self-reliance is aimed at by developing capital goods and defence-oriented industries and by boosting production in other major industries. Steel production will be increased by 800,000 tons, fertilisers by one million nutrient tons, cement by four million tons, natural gas by 280,000 million cubic feet and transport equipment and industrial machinery by Rs 1,100 million.
10. Power generation capacity is to be increased to 1,740 MW providing irrigation to an additional four million acres and extending rural electrification to 2,150 more villages.
11. A major flood control programme will be undertaken in East Pakistan outside the Fourth Plan at an estimated cost of Rs 150 crore.
12. For improving communication facilities, the two wings will be linked by a space-satellite. An additional 190,000 telephones will be installed. TV coverage will be extended to cover 90 per cent of the population. Educational TV, including farm broadcasts, will be introduced.
13. Outlay on education is to be increased by more than 2½ times the level of investment in the Third Plan by increasing primary school enrolment by five million, secondary school enrolment by one million, and by increasing technical education by 2.80 percent. Universal primary education upto class V is aimed at by 1980.

Literacy percentage is expected to go up from 18 in 1969-70 to 28 in 1974-75 and 42 by the end of the seventies.
14. In the field of public health malaria and small-pox eradication programmes will be extended to cover the entire population. A total of 24,000 hospital beds will be added.

The target for Family Planning is to prevent 9.6 million births during the Plan period and to reduce the birth rate from 45 in 1969-70 to 40 in 1974-75.

15. Half a million housing units for low-income group will be constructed while restricting the construction of luxury housing.
16. In respect of physical planning, an Urban Works Programme will be implemented to improve environmental conditions in urban areas and to meet community needs in neglected areas.

ALLOCATION

The Plan proposes a total development outlay of Rs 7,500 crore—Rs 4,900 crore in the public sector and Rs 2,600 crore in the private sector. Taking a cautious note of impending political developments, the Plan states: "The relative roles of public and private sectors is a major policy issue which can be re-examined in the light of the new political framework" emerging after the country's forthcoming General Election."

The increased outlay on public sector is in view of the need for accelerated development in East Pakistan where private sector is less active. It is also due to the emphasis laid on the social sector and the contemplated shift in favour of capital goods industry.

The special emphasis laid on the social sector is indicated by the fact that this sector claims 27 per cent of the total Fourth Plan allocation as against the 20 per cent outlay in the Third Plan. The following is the pattern of public sector allocation under different heads :

	Rs in crores		
	Third Plan (estimated actual)	Fourth Plan (allocations)	Percentage increase
Agriculture	265	665	151
Industry	268	435	62
Fuels and Minerals	57	60	5
Water	630	1010	60
Power	360	585	63
Transport and Communications	420	805	92
Physical Planning & Housing	155	375	142
Education	135	370	174
Health & Family Planning	90	315	250
Social Welfare	5	21	320
Manpower	5	14	180
Works Programme	110	245	123
Total	2,500	4,900	96

RESOURCES

Out of the total Fourth Plan development outlay of Rs 7,500 crore, about 70 per cent will have to be raised internally, compared to 64 per cent in the Third Plan and 60 per cent in the Second Plan. This would require a saving and reinvestment of at least 1/5th of the additional income generated. The Plan also involves an additional taxation effort of the order of Rs 680 crore; Rs 100 crore through improvement in the performance of the public sector and Rs 350 crore by deficit financing. In the Third Plan the total taxation effort was of the order of Rs 650 crore. Against this, the Fourth Plan target of Rs 680 crore entails an annual taxation effort of Rs 40-45 crore. The report of the Taxation Commission, which is awaited, is likely to indicate the direction of tapping additional tax potential.

The Fourth Plan expectations of foreign aid inflow are fixed at Rs 2,200 crore. Out of this, Rs 1,800 crore will be available for the public sector and Rs 400 crore for the private sector. The aid inflow during the Third Plan was of the order of Rs 1,600 crore. Thus, against a 63 per cent rise in the development expenditure during the Fourth Plan, the aid inflow will be only 45 per cent higher. Accounting for debt servicing liabilities, the net aid availability will be as low as only 13 per cent more than in the Third Plan. The contribution of gross foreign assistance in financing development will decrease from 34.2 per cent in the Third Plan to 29.3 per cent in the Fourth Plan and in net terms from 27.4 per cent to 21.3 per cent.

Pakistan is pinning her hope on a 100 per cent increase in the total fund availability (800 million U.S. dollars per year) from I.D.A., on the World Bank's promise of increasing its aid outflow to Asia, Africa and Latin America, on the Pearson Commission's Report in the wake of which the U.K. and West Germany have announced an increase in their development lendings, and finally, on the recommendations of the Pakistan-Peterson Task Force, set up by President Nixon, for increased flow of foreign assistance.

Shortfall in Plan Performance

The actual public sector expenditure in Pakistan's Third Plan fell short by Rs 800 crore against the proposed outlay. Out of a total of Rs 3,000 crore, Rs 1,600 crore for East Pakistan and Rs 1,400 for West Pakistan, the actual spending in the two Wings was Rs 1,200 crore and Rs 1,000 crore respectively.

This shortfall of Rs 800 crore was due to an increased defence expenditure of about Rs 500 crore and a fall in external assistance of about Rs 400 crore.

In respect of private sector spendings, while in West Pakistan the target was exceeded, in the Eastern Wing the total private sector spending amounted to Rs 550 crore against the target of Rs 1,100 crore.

PREFACE TO THE FOURTH PLAN

from Page 4

must ensure, however, is stability in respect of the core items of family consumption. An adequate supply of foodgrains and articles of everyday use must be maintained at fairly stable prices. Agricultural scientists who have brought about such notable increases in yields of wheat, and to some extent of millets and rice have now turned to the task of bringing about similar gains in pulses and cash crops like oilseeds, cotton and sugarcane. In general, the possible impact of development plans on the price situation has been carefully studied, and every effort will be made to keep production and prices in balance.

Planning certainly has its critics, but the fact remains that in modern conditions, and in a developing country like ours, economic planning has become indispensable. Compared to the tasks to be accomplished, the resources of money, trained manpower and administrative and managerial skills are in short supply, and they have to be allocated primarily with a view to the national interest rather than the interest of any private individual or group. This is after all, what the Plan seeks to do. At the same time, and through such rational allocation, it can lead to an augmentation of the now scarce resources, and thus gradually extend the limits of our economic freedom.

For us in India, planning is a charter of orderly progress. It provides a framework of time and space that binds sectors and regions together and relates each year's effort to the succeeding years, impelling us all constantly to greater co-operative endeavour. By strengthening the economic fabric of the country as a whole and of the different regions, it makes a powerful contribution to our goal of national integration. The Plan gives concrete expression to our national purpose. With its implementation, we shall have advanced yet another stage towards our goal of a prosperous, democratic, modern, socialist society. In meetings of the National Development Council, I have found that all States, irrespective of the political beliefs their Governments hold, have very similar expectations of the Plan. This is so because our people as a whole have pinned their hopes on the Plan and want it to succeed. I am confident that they will not spare themselves in a determined effort to ensure that it does succeed.

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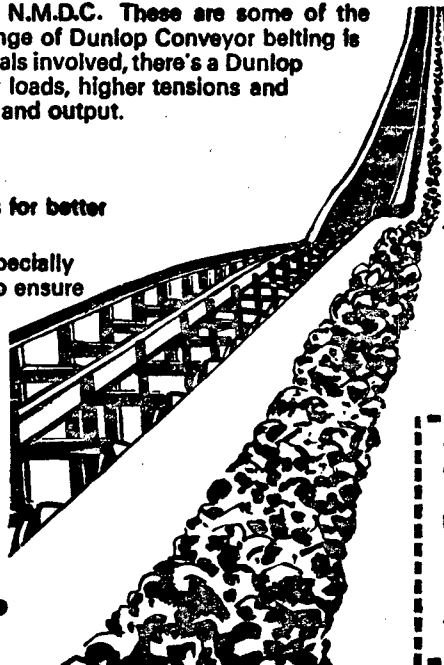
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If a country, or rather a people, cannot develop without foreign aid it is unlikely to develop with it

FOREIGN AID DOES NOT INCREASE RATE OF DEVELOPMENT

P. T. BAUER

THE flow of aid since the Second World War has probably more often retarded than promoted overall economic advance in recipient countries. This conclusion is paradoxical, because foreign aid certainly increases the resources of the recipient countries, or at any rate of their governments. But it does not follow that foreign aid increases the rate of development. The result depends on how aid affects the determinants of economic progress, notably its repercussions on economic capacities, policies and institutions, and on the allocation of resources.

The major determinants of material progress are people's economic faculties and attitudes, their values, objectives and motivations, their social and political institutions, together with natural resources and external market opportunities. Foreign aid is relatively ineffective as an instrument of development because, even at best, it cannot affect these underlying determinants of development favourably.

Foreign aid is clearly not necessary for economic development, as is obvious from the very existence of developed countries, all of which began as underdeveloped and progressed without foreign aid. Moreover, many underdeveloped countries have advanced very rapidly over the last half century or so without foreign aid, a particularly relevant consideration in this context. There are many such countries in the Far East, South-East Asia, East and West Africa and Latin America.

Advocates of aid encourage the unfounded belief that the prerequisites of development can be had for nothing, and ignore or obscure the fact that the people of developed countries themselves have had to develop the qualities, attitudes and institutions favourable to material progress.

Foreign aid cannot promote development if the population at large is not interested in material advance, or if it is strongly attached to values and customs incompatible with material progress.

Persons and groups react to material poverty and backwardness in different ways. Possible responses include failure even to notice the condition, which is often part of a wider attitude of un-questioning acceptance of the nature of things, especially if comparisons with other people are not readily available; conscious

acceptance of poverty, either in the form of resignation or unwillingness to change modes of living; attempts to improve one's position by reliance on charity or other free donations through beggary or blackmail; and deliberate attempts to improve one's own economic performance. Only the last of these responses can lead to sustained material progress, and it is the one least likely to be promoted by the insistence on foreign aid as necessary for material advance.

In assessing the likely effect of aid an important difference should be noted between resources developed locally (or received in exchange for local production), and resources supplied gratis as external doles from abroad. When resources are received from abroad for nothing, the valuable process of generating resources is lost. When resources are both generated and used locally, the personal faculties and attitudes, social institutions and economic opportunities are encouraged to grow and to serve as basis for further economic development. Moreover the adoption of foreign prototypes in development policy can often be damaging; it may not promote material progress, or may indeed retard it and lead to frustration and political tension.

Balance of Payments

Foreign aid augments the resources of governments compared to those of the private sector in recipient countries, and thereby promotes concentration of power within underdeveloped countries. The preferential treatment of governments engaged in comprehensive central planning carries this process a stage further. Indeed, in many discussions planning is equated with development, which is the opposite of the truth, if comprehensive planning means state control over the composition and direction of economic activity.

The flow of aid is often linked with the balance of payments deficits of the recipients, particularly when these deficits are regarded, as they often are, as inevitable concomitants of government efforts to carry out development plans. Governments are thus encouraged to make their development plans as ambitious as possible to pursue inflationary monetary and fiscal policies, and to avoid the accumulation of foreign exchange reserves. The pursuit of inflationary policies, the recurrence of balance of payments crises, and especially the imposition of specific controls, notably exchange controls, usually leads to a widespread feeling of insecurity, which

encourages the export of capital and discourages domestic saving and investment expenditure.

Thus foreign aid may even reduce rather than, as is so often urged, increase investment within the recipient countries. In many instances, of course, expenditure made possible or easier by foreign aid is quite unrelated to any type of capital formation.

Infrastructure Is Not Ready-Made

A variant of the case for foreign aid to promote investment links aid specifically to the financing of the infrastructure necessary for development in poor countries.

Infrastructure in this context refers to such installations as ports, railways, roads, which do not produce commodities directly but promote economic activity generally. It is said that without these installations economic advance is impossible, while the high costs put them beyond the means of poor countries, particularly as the economic return is either too long delayed, or too general or indiscriminate, for private financing. In fact, much of the infrastructure even in underdeveloped countries has been financed and operated by private capital. Moreover, governments of underdeveloped countries themselves could borrow from private sources, and service the loans from increased revenues, which is indeed what has happened in many underdeveloped countries in the comparatively recent past.

The infrastructures of reasonably highly developed economies represent substantial capital, which absorbed a large part of total investment over decades or even centuries. The suggestion that a ready-made infrastructure is necessary for development ignores that the infrastructure was usually developed in the course of economic advance; it is another example of an unhistorical and unrealistic attitude to the process of development. Much of the literature suggests that the world was somehow created in two parts: one part with a ready-made infrastructure of railways, roads, ports, pipelines and public utilities, which has therefore been able to develop, and the other, which the Creator unfortunately forgot to endow with social overhead capital. This is not the way things happened.

The main argument behind the axiomatic support of foreign aid is the suggestion that it is essential for the development of poor countries. For instance it is often argued that the West has a moral duty to help the poor countries and that aid should be offered to meet their needs, especially in view of the allegedly ever widening gap between rich and poor countries.

Foreign aid is sometimes regarded as an inevitable and natural instrument for redistribution of wealth. But foreign aid differs radically from domestic redistributive taxation, whatever the merits of the latter. Foreign aid is paid by governments to governments: it is not redistribution of income between persons and families. The flow of aid cannot be adjusted to the circumstances and incomes of individuals and families. Foreign aid is partly regressive because many taxpayers in the donor countries who contribute to aid are poorer than many people receiving it in the recipient countries.

Anyway, the general case for redistributive taxation implies a basic uniformity in living conditions and requirements of income recipients. Physical and social conditions, and thus modes of living, differ widely between many rich and poor countries. This difference is obvious for physical requirements, but it applies also to social conditions.

Need Is No Criterion

Altogether it is not clear why the prior emergence of some people from material backwardness—which is what is meant by international income differences—should be considered reprehensible. Much of the emphasis on international inequality reflects the advocacy—implicit or explicit—of a policy to standardise living conditions, internationally by redistributive taxation, possibly coupled with supra-international economic controls. The advocacy of such policies gains effectiveness from the closely related suggestions that international income differences are unjust, and that they do not reflect far-reaching differences in qualities, attitudes and requirements; in other words, that material inequality is reprehensible and indefensible and at the same time abnormal and easily remediable at no great cost. But precisely because international income differences reflect deep-seated differences in people's abilities, attempts to remove them imply close and intense control over people's lives, that is, the creation of great inequalities of power. The more diverse the conditions, and the more deep-seated the causes of diversity, the more intensive is the compulsion required to standardise them. A large measure of international standardisation of material conditions requires not only world government, but world government with totalitarian powers.

Another argument for foreign aid is based on need, which suggests that the need of poor countries for aid is shown by their very low incomes, and aid must therefore be given.

Simple references to need do not provide a criterion for aid. Indeed, its adoption leads to paradoxes or even absurdities. If the country is poor, or experiences difficulties, *i.e.*, is in need because the government spends large sums on armaments or on political propaganda directed against the donors, or because it expels the most productive groups in the country, should this need serve as a ground for further aid? This consideration should suffice to disprove need as a basis for aid.

Taxpayers' Money

Foreign aid is often advocated as if it were the discharge of a moral duty to help the poor. But the analogy with moral obligation fails completely. Foreign aid is tax-payers' money compulsorily collected, it is outside the area of volition and choice, and therefore has no moral element. Indeed, contributors not only have no choice, but quite often do not even know they are contributing.

It is sometimes urged that in a democracy tax-payers do have a choice, which restores the moral element in foreign aid. This objection is superficial. The taxpayer has to contribute to foreign aid whether he likes

it or not and whether he has voted in its favour or against it. Those who favour foreign aid could always make a donation to the governments of recipient countries.

A moral obligation to help the less fortunate cannot be discharged by entities such as governments, but only by persons who are prepared to impoverish themselves and weaken their position relatively to others in order to help their poorer fellow-men. Those wishing to help underdeveloped countries can easily write a cheque in favour of their governments or missions, schools and hospitals operating there.

Instrument of Political Strategy

Foreign aid is sometimes justified, especially in the United States, on the grounds that it represents a valuable instrument of western political strategy in keeping underdeveloped countries out of the Soviet bloc. This argument is in curious contrast to those based on moral and humanitarian grounds. But it is also insubstantial.

*The argument assumes that foreign aid serves rapidly and appreciably to raise living standards, and further that an inclination to accept communism depends largely on the standard of living. Neither of these assumptions is valid.

*With few exceptions, foreign aid promotes centralised and closely controlled economies, so that governments emerge which lean toward the Soviet bloc, which they find more congenial.

*Beneficiaries in this area, as in others, are apt to resent donors. The transfer of taxpayers' money to foreign governments without control over its use understandably arouses suspicions of sinister motives, notably of political domination. In recipient countries, foreign aid is also often regarded as an instrument for forcing them to purchase what would otherwise be unsalable goods from the donor countries. Moreover, many people in recipient countries consider aid as an admission of guilt on the part of the donors, and as partial restitution for past wrongs. This view is fashionable and vocal in underdeveloped countries, where it is widely put about that their material backwardness is a result of western exploitation.

*If foreign aid were to serve as an instrument of political strategy, it would have to be allocated much more selectively than at present, and its allocation would have to be divorced from pressures by commercial interests in donor countries.

The last argument for aid to be considered here is the curious suggestion often put forward in Great Britain, that foreign aid promotes exports and thus helps the balance of payments. This argument is, at best, obscure but more nearly misleading, or even the reverse of the truth. If the argument means that exports are bought with the proceeds of aid, they are unrequited, and cannot buy imports or repay debt, so that the resources used contribute nothing to British real income. And as exports have an import content and also diminish domestic supplies, unrequited exports aggravate the external payments problem and thereby increase the corresponding need for deflation of home demand. To argue in this way for aid is like

urging the shopkeeper to have his till robbed, on the ground that the stolen money may well be spent in his shop.

If, on the other hand, the suggestion refers to the provision of shelter in external markets through tied aid, it implies a subsidy to British exporters, which is not what is usually understood by aid.

The foregoing arguments are not intended to suggest that foreign aid can never promote economic development in poor countries. There are circumstances in which foreign aid may supply a missing factor, though this may not even be capital. In Taiwan, for instance, substantial United States aid has probably promoted the rapid material progress since the early 1950s, an advance which, though remarkable, was not more so than that of Hong-Kong and Japan. Before United States aid began it was widely believed in Taiwan that the country would shortly be taken over by the People's Republic of China. This apprehension led to a crisis of confidence which was only reversed by the flow of American aid, accompanied by drastic changes in the government's economic policy, notably the removal of many of the more restrictive government economic controls, substantial withdrawal of the government from direct participation in economic activity, and successful measures of land reform without expropriation. The role of United States aid in promoting these latter changes is clearly difficult to measure but it is widely held to have been significant.

The beneficial effects of aid on Taiwan could be reproduced elsewhere. For instance, foreign aid could accelerate development in poor countries, by reducing the price of investible funds. But this would, of course, only be effective if the other factors and preconditions necessary for development were already present.

But the question of how far the effectiveness of aid could be enhanced is still open. There seems to be much scope for some improvement, especially through radical changes in the criteria for its allocation. Aid could be allocated much more selectively than at present. In particular, aid could be distributed so as to favour governments which, within their human, administrative and economic resources, try to perform their essential tasks (including modification of the institutional structure), while at the same time refraining from close control of the economy. Such a criterion would promote relatively liberal economic systems in recipient countries, would minimize coercion, and advance economic development and living standards generally. It would probably reduce political tension in the recipient countries, too. Pressures by commercial interests in the donor countries, for whom foreign aid often represents subsidized markets, would also be avoided.

But even if foreign aid were reformed along these lines, which is improbable, it is still unlikely to serve as an effective instrument, let alone an indispensable instrument for the economic development of poor countries. It may promote their development in some instances; in practice the presumption is the other way.

Courtesy : CERES

With nuclear power to flow from Kalapakkam around 1974 and the Salem Steel Project on the anvil, Tamil Nadu has a tryst with destiny

THE search for steel in Salem district of Tamil Nadu is more than a century old. The pioneering efforts of Josiah Marshall Heath, a member of the Civil Service in the State, to establish iron works in Porto Novo in South Arcot district in 1830 were followed by those for a similar project in 1949 in Pulampatti in Salem district and in Tiruvannamalai in North Arcot district. Several proposals for setting up such a project had to be given up due to one reason or the other.

Nevertheless, the reports of R.M. Benza (1856), Newbold (1846), W. Kind and R.B. Roote (1864) provided valuable information on the availability of iron ore deposits in the region and furnished the first comprehensive account of their geology. The report of Sir Thomas Holland (1895) contained for the first time several analyses of Salem iron ores. Kanjamalai deposits were studied by Dr V.S. Dubey and Karunakaran in 1957-58 and a report thereon was submitted to the Government. In 1944, a study on the iron ore deposits in Salem by V.S. Krishnan and N.K.N. Aiyanagar was published.

In spite of all these scientific investigations on the iron ore deposits in the region, the proposal for a steel work could not take shape for the non-availability of an important element for steel manufacture, namely, metallurgical coking coal in the neighbourhood. The discovery of expensive reserves of lignite, estimated at about 2,000 million tonnes in Neyveli in the adjoining South Arcot district, have provided this basic input.

The proposal, now accepted for the establishment of an integrated iron and steel plant in Neyveli-Salem region based on the iron ore of Kanjamalai and lignite from Neyveli was initiated by the Government in 1960. Since then extensive investigations have been carried out

on the iron ore reserves and also studies to assess their suitability for steel making. These studies were entrusted to experts from the U.S., Japan, the U.K., Sweden, Norway and East and West Germany. After studying the samples of the iron ore and lignite available in the area, the experts are unanimous that special alloy steel could be pro-

malai hill—one with overburden and another without overburden—each 15-metre square and five metres deep.

Kanjamalai hills, situated about 10 kms from Salem, have a length of about six kms and a width of three kms, and rise to a height of 670 metres above the ground. The hill is composed of three iron ore bands. The first band of ore stands out as a girdle of hillocks around Kanjamalai at its base. The second and the third occur at elevations of 300 and 365 metres above the ground level. The first band has an average width of about 25 metres and a total length of 12 kms, and forms the most important of the three bands from the point of view of the reserves and exploitation. The geological investigations, namely, pitting, trenching, drilling and opening of slits and by diving an adit have established an ore reserve of 122 million tonnes above the ground level in Kanjamalai alone.

THE SALEM STEEL PROJECT

A YOJANA STAFF REPORT

By S. V. Raghavan

Our Madras Correspondent

cessed economically and in sufficient quantities with the existing raw material available within the region. The Indian consulting engineers, Dastur & Co. in their project report envisaged a capacity of half a million tonnes of special alloy steel per annum in the first stage. According to them the feasibility and the economic viability of the project were beyond doubt.

Pending Central approval of a steel plant, the State Government decided to set up a plant for the concentration of the magnetite iron ore at Kanjamalai and for pelletisation with a view to exporting the pellets and later on to dovetail this project with a full-fledged steel plant. Now, with Centre's acceptance of the proposal, the consultants have suggested pilot mining at two places in Kanja-

Rich Deposits

Aero-malmetric survey and other studies have indicated additional deposits within a radius of about 30 to 40 kms.

For extracting one tonne of mined ore, an additional one tonne of overburden would have to be handled. For obtaining one tonne of beneficiated and concentrated ore, 22.3 tonnes of iron ore would be required. On this basis, a plant of the capacity of half a million tonnes of steel initially, can be fed by the Kanjamalai ore deposits alone for more than 40 years.

With these very large reserves of lignite, it will not be difficult to get a supply for an annual requirement of 3,28,000 tonnes of lignite char from the briquetting and carbonisation plant at Neyveli, the present capacity of which is 3,35,000 tonnes per

annum. Limestone of the required grade for the manufacture of iron and steel is obtainable within the district itself, from places like Sankaridrug, Namakkal and Tiruchengodu, and from the adjoining Coimbatore district. Other raw materials like magnesite and bauxite are again available from within Salem district. Bentonite is the only item which has to come from far off Rajasthan.

In the matter of power supply, water and transportation, Salem is well situated, and these should offer no particular difficulty. Kanjamalai site would require only 161 tonne-km. of transport for assembling iron ore concentrates, lignite, char and fluxes for one tonne of steel. This figure is the lowest among the sites considered for this project and also the lowest of all the steel works in the country.

Land acquisition proceedings have been initiated for acquiring 6,868 hectares of land for building the plant, township, railway siding,

marshalling yards, ancillary industries and mining.

The capital cost of the project of 500,000 tonnes capacity will be about Rs 100 crore, including a foreign exchange component of Rs 40 crore (pre-devlaution estimate). The State Government has so far incurred an expenditure of about Rs 64 lakh on the preliminary items of the project and has provided Rs 10 crore in the Fourth Plan.

The plant will employ about 5,000 persons when commissioned at the end of about five or six years.

With the low phosphorus and sulphur content of the beneficiated ore and low aluminium and phosphorus content of the coking fuel, the pig iron, which will be one of the intermediate products, and the special kinds of steel will be able to meet the specialised requirements of the automobile industries, which are concentrated in a big way in the South. Also the products of the Salem plant will meet the increasing

demand of the engineering industries.

With nuclear power flowing from Kalpakkam around 1974 and steel from Salem rolling out in the near future, Tamil Nadu seems to have tryst with destiny.

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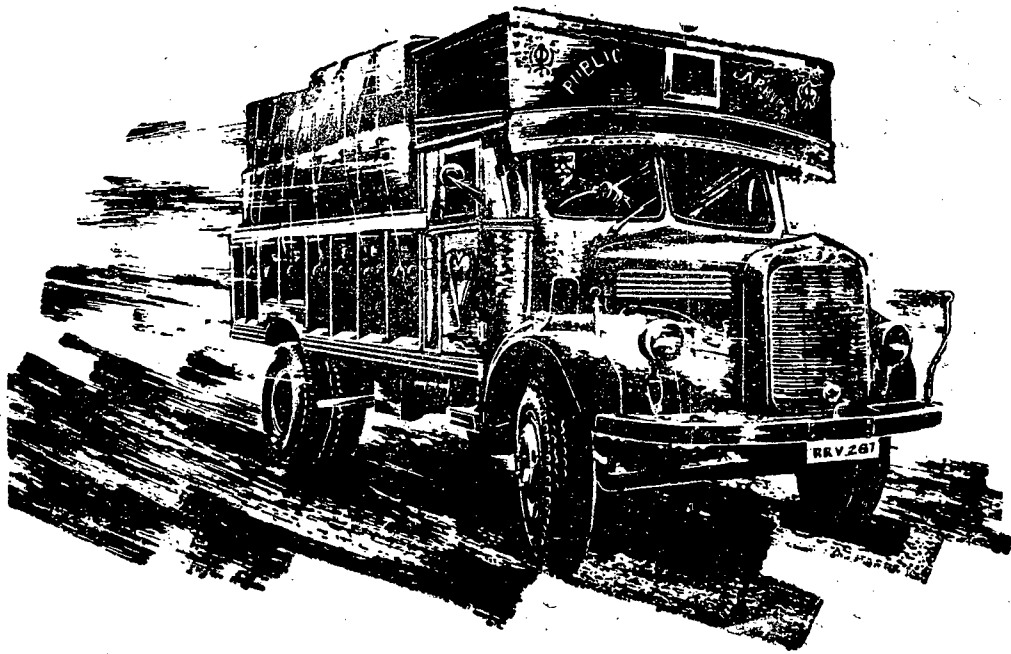
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EARTH RESOURCES SATELLITE

A satellite that will map the world's food, water and fuel resources and help fight natural calamities by forecasting them will be orbiting the earth in about two years from now. The processing of the data returned by the satellite is expected to have global participation for the simple reason that weather is every man's business.

An operational earth resources satellite system linked to computerized ground complexes can help unravel mankind's untapped reserves of food, fresh water, fuels, minerals and forestry resources.

Watching the rotatory earth from hundreds of kilometers above, the Earth Resources Satellite can forewarn the terrestrial men about impending forest fires, iceberg flow, destructive locust migrations, even the now unpredictable natural disasters like the recent earthquake in Peru.

While the navigation, geodesy, meteorology and communications satellites launched earlier tended to benefit the industrialized world, the Earth Resources Satellite project is of widest implications for all the nations of the world.

The drum-shaped satellite with two large solar panels will carry two monitoring instruments: an advanced high-resolution camera and a four-band scanner to pick up images in infra-red wave-lengths outside the visible spectrum. The instruments will take pictures of land plots 160 km on a side.

Flying in a circular orbit 904 km above earth in a near polar orbit, the spacecraft can view the rotating planet totally each day. It will be assigned specific tasks like identifying crop species, assessing crop vigour or disease, classifying uses to which land is put, determining land surface composition and structure, mapping snow cover and assessing water runoff, mapping shorelines and estuaries and identifying and mapping air and sea pollution.

Accurate forecasting of water run off by the satellite can help double the irrigation, thereby effecting 25 to 50 per cent increase in irrigated crop production, without adding more land to cultivation.

Accurate run-off forecast will also facilitate better siting of dams. Hydroelectric power generation can be increased 25 to 40 per cent with accurate information on expected water flow, again without installing new generators. The 250 million dollar project also includes the launching of a second Earth Resources Satellite in 1973. If trials succeed, meteorology will acquire a wholly celestial outlook.

FAMILY PLANNING FOUNDATION

The explosive increase in India's population—we have the unsavoury distinction of adding one Australia every year—has constantly worried our demographers, economists and planners. In the Fourth Plan Rs 315 crore have been allocated for keeping the birth rate down. But looking at the magnitude of the task, governmental effort alone will not be sufficient. Non-governmental initiative and effort have an equally wide scope in this vital sector. The initiative of Mr J.R.D. Tata and Dr Bharat Ram in setting up a Family Planning Foundation "to secure a wider commitment to a national problem" is welcome and praiseworthy. Created to assume "a supporting and innovative role", the Rs 58 lakh Foundation will sponsor research, back up financially specific projects on the lines of regional family planning associations and maintain mobile medical clinics to overcome the shortage of medical and para-medical personnel. Mr Tata and Dr Bharat Ram's lead is worthy of amelioration. There is no doubt that the massive governmental effort combined with matching private initiative will help achieve the target of restraining the birth rate at 25 per thousand against the present one of 39.



IGNORAMAN

Wants to Know
If
the Law will succeed
in grabbing those
who 'grab' the land

GERMANS PREFER INDIAN TEA

"Kaffeetinken"?
"Teetinken..."
"Indischen Tee trinken".

The above dialogue is not from a German movie but from German life today. The Germans have switched over from coffee to tea, and when it comes to tea, their preference is Indian tea with lemon juice.

The Federal Republic imports tea leaves from India and has it blended according to the demands of its domestic market. In 1967, West Germany imported Rs 4.1 crore worth of Indian tea. This rose to Rs 5.1 crore last year. Imports included all varieties of Indian tea: Assam tea which accounts for 52 per cent of India's total tea exports; Darjeeling tea, which has the richest flavour; and also the Dras tea produced in the plains of West Bengal.

India is the world's largest producer of tea, with an annual production of 380 million kg. This forms 48 per cent of the world's total tea supply.

KARNAL IS HARYANA'S GRANARY

THE STORY OF AN INTENSIVE AGRICULTURAL DISTRICT

K. K. AGGARWAL

KARNAL'S AGRICULTURE IN 1967-69

- * Foodgrains production registered an increase of 33.3 per cent.
- * Wheat production up by 60 per cent.
- * Average yield of wheat up by 15 per cent per annum.
- * Five-fold rise in fertiliser consumption.
- * Area under high-yielding varieties increased from 7,000 to 1,10,000 hectares.
- * The value of yield of important crops rose from Rs 69 crore to Rs 86 crore.

KARNAL was brought under the Intensive Agricultural District Programme in 1967 and within two years it has become Haryana's most important agricultural district having produced 32% of the State's foodgrains, 35% of its wheat and 62% of its rice.

Situated on either side of the G. T. Road, it forms part of the Indo-Gangetic alluvial plain. The soil is derived from sediments deposited by Yamuna and Ghaggar and their tributaries. The light alluvial soils, commonly known as *Khaddar*, are mostly found along the river Yamuna and the medium to heavy soils constitute *Banjar* area. The main soil problems are salinity, alkalinity, water logging and water erosion.

The rural population accounts for 83% of the total population of the district, there being 1.27 lakh farming families living in 1,352 villages. As many as 42% families own land less than 4.1 hectares, which is scattered at least in two pieces.

The distribution of rainfall was uneven during 1968-69. There was heavy downpour in the beginning and a long drought afterwards. Excessive rains in July of the year resulted in floods causing damage to stocks of foodgrains and fertilisers, while continued dry spell in the winter months affected adversely the sowing of *rabi* crops. Rains again failed in vast areas of the district during the current year. Late and scanty showers were hardly sufficient for the cultivations of maize and bajra.

Paddy is the most important crop of the district. Area under this crop was 1,38,000 hectares in 1967-68 and 1,39,000 hectares in 1968-69. This year three varieties of paddy namely IR-8, *Basmati* and *Jhona* were sown but due to failure of rains the transplantation of paddy had to be delayed by more than a month. September rains did help the *kharif* crops to mature successfully but a shortfall of about 40% in area and production was estimated, specially under high yielding and *Basmati* varieties.

Out of a total area of 8,01,000 hectares, the cultivated area in the district is 6,44,000 hectares. The total

cropped area was 8,88,000 hectares as a result of double cropping. Most of the principal crops namely rice, maize, wheat, gram, sugarcane and cotton are grown here. The area under different principal crops was as under:

	in ' 000 hectares		
	1966-67	1967-68	1968-69
Wheat	224	242	268
Gram	109	121	101
Rice	124	138	139
Maize	47	57	48
Sugarcane	36	32	38
Cotton	21	21	17

The value of important crops produced was Rs 86 crore in 1968-69 as compared to Rs 69 crore in 1966-67.

Fourth Plan Scheme

During the Fourth Plan, the total cropped area under foodgrains alone would be increased from 6,94,000 hectares to 7,35,000 hectares which would further be subdivided into 4,53,000 hectares under *rabi* foodgrains and the remaining 2,82,000 hectares under *kharif* foodgrains. The production of foodgrains would also increase from 6,64,000 tonnes to 12,50,000 tonnes.

The net area irrigated in 1968-69 was 3,00,000 hectares out of which two-thirds was fed by canals and the remaining one-third by 14,714 tubewells. The percentage of irrigated area under important food and non-foodgrain crops has increased from 50% in 1966-67 to 61% in 1968-69 as a result of special efforts made under the Intensive Agricultural District Programme through Agricultural Refinance Corporation and advancement of loans worth Rs 194 lakh through primary Land Mortgage Banks. With the installation of 30,000 new tubewells during the Fourth Plan period (at the rate of 6,000 every year) an additional one lakh hectares would be brought under irrigation, thus increasing the irrigated area from 3,54,000 hectares to approximately 5,00,000 hectares in 1973-74. This will constitute about 70% of the total area under foodgrains. The area under cash crops will increase from 1.20 lakh hectares to 1.45 lakh hectares. The total gross irrigated area by the end of Fourth Plan would be 6,40,000 hectares as against 5,00,000 hectares in 1968-69.

The fertiliser consumption in the District increased from 18,000 tonnes in 1966-67 to 58,000 tonnes in 1967-68 and 1,03,000 tonnes in 1968-69. The per hectare consumption was 27.05 kgs, 67.50 kgs. and 157 kgs. respectively. Karnal district consumed 43% of the State's total fertiliser consumption and 50% of Phosphatic and Potassic fertiliser in 1968-69. A target of 1,50,000 tonnes of fertiliser has been fixed for the year 1969-70 raising the per hectare consumption to 180 kgs. The district needs another 70 kgs. per hectare in order to catch up with Ludhiana district in Punjab.

The chemical fertiliser would be supplemented by 9,33,000 tonnes of compost manure for which 63,500 new manure pits and 60,000 old pits would be dug during 1969-70.

By the end of the Fourth Plan fertiliser consumption would be raised to 3.20 lakh tonnes, or to 350 kgs. per hectare. Besides prescription of balanced quantities of fertiliser, the dosage would be split up for application at different intervals.

The area under high yielding varieties increased from 6,800 hectares in 1966-67 to 46,520 hectares in 1967-68 and 1,10,200 hectares in 1968-69. It will further go up to 1,25,000 hectares in 1969-70 (one lakh hectares under wheat, 12,000 hectares under Paddy 8,000 hectares under maize and 5,000 under bajra). The area under high-yielding varieties would further be increased during the Fourth Plan to 3,40,000 hectares. Out of this 2,40,000 hectares would be under wheat 50,000 under paddy, 25,000 under hybrid maize and an equal area under hybrid bajra.

The average yield per .40 hectare of wheat has shown a growth rate of 15% per annum. It has risen from about 630 kg to about 820 kg per .40 hectare as a result of better irrigation facilities, judicious use of fertilisers and quality seeds, adoption of high yielding varieties, besides taking plant protection measures and assuring clean cultivation on scientific lines.

The water table in Karnal district is very near to the ground level and hence the texture of the soil is very weedy and hardy in nature. Thus mechanical cultivation

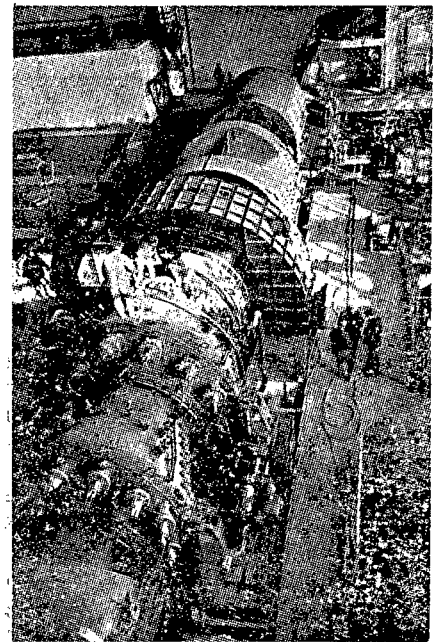
is the only answer for improving the yield and especially the pattern. In addition to 2,250 tractors, 97 tractors were provided under the agricultural refinance scheme. 820 more tractors would be procured and supplied during the current financial year. Wheat threshers and prototype threshers are also becoming popular.

Demonstration plots laid on scientific lines provide an excellent laboratory for the enthusiastic farmers to learn latest methods of cultivation and to increase production. 4,570 such demonstration plots were laid during 1968-69. 1,125 demonstration centres and 6,750 demonstration plots would be set up during 1969-70 besides developing 150 villages as model ones.

Under the farmers training programme 12,567 farmers were trained during 1968-69 and 6,225 during *kharif* 1969 in latest techniques of scientific farming in a number of training camps at village, block and district levels for different durations. The programme will continue during the current year and the Fourth Plan period by arranging 450 camps at district level, 2,250 at block level and 15,000 at village level annually.

The actual requirements of fertiliser can be gauged and adequate dosage recommended after the soil is clinically tested. It is proposed to test 60,000 solid samples every year, for which a soil-testing laboratory has been set up at Karnal.

Crop competitions at the rate of 300 at village level, 30 at block level, 30 at district level and 13 at State level are held every year in order to stimulate competitions for greater production. Three thousand farmers have so far participated in such competitions.



A view of the world's largest gas turbine which works on the principle of aircraft jet engines.

WORLD'S LARGEST GAS TURBINE

A Russian-built 100,000 kw gas turbine, the world's largest, has been successfully tested at the Krasnoyarsk Heat and Power Plant. The turbo-unit is designed to relieve peak loads at electric stations during the evening, when a rapid generation of more power by additional units is necessary. Steam turbines take from 10 to 12 hours to get into full operation for attaining full capacity, while in gas turbine it takes only 30 to 40 minutes. Besides, a gas turbine takes up little space, requires smaller quantity of metal in its making and, most important of all, is economical in the use of fuel.

The gas turbine designed and constructed by three Leningrad units is not only the biggest in the world, but it works on the principle of aircraft jet engines, has a new automation system and is made from special heat-resistant alloys. An original computer, designed specially for the control of the operation of the turbine automatically informs the engineer on duty of all aspects of the operation of the turbine.

WOOD-BASED INDUSTRIES IN WEST BENGAL

FORESTS cover over 3,300 square kilometres, about 35 per cent of the total land area of the Himalayan districts of Darjeeling and Jalpaiguri in West Bengal. The total production of industrial wood from these forests has increased from 60,000 cubic metres in 1956 to about 1,00,000 cubic metres in 1960, and to over 1,38,000 cubic metres in 1968-69. The present market value of forest products in the region is Rs 6 crore.

The forests in the northern areas of West Bengal provide immense potential for industrial development of the region. At present plywood manufacture, saw-milling and furniture-making are the only wood-based industries in the region. Of these, one Saw Mill and one Training-cum-Production Centre in furniture-making in Siliguri are in the public sector, while the rest are in the private sector.

Four plywood mills, employing over 1300 workers, produce about 8 lakh square metres of plywood for the manufacture of tea chests and about 800 cubic metres of round wood. The Government Saw Mill at Siliguri, the largest in the area, has an annual turn-over of Rs 20/25 lakh and produces over 9,000 cubic metres of sawn timber and employs over 220 workers. Fifty-nine other saw mills provide employment to 600 people while two furniture-making industries employ over 150 people.

The forests in the region supply about 7,500 cubic metres of wood for the match-manufacturing industry in the Calcutta area, which accounts for 20 to 25 per cent of the total demand of the industry.

However, only a fraction of the vast forest resources have been utilised so far. During the last two decades, West Bengal has made remarkable strides in industrial development; but this has been confined to certain areas in the State. For this reason, the development of wood-based industries has been neglected. This has resulted in forest-based raw materials for the manu-

facture of paper, newsprint, pulp and other industrial purposes being put to unproductive use.

The tea industry could have nursed the ailing economy of North Bengal. But because of competition in the international market, the tea industry has reached the saturation point and its further expansion is no longer possible. In fact, the average number of workers in the tea industry has declined from 2,51,145 in 1958 to 1,87,612 in 1967 despite the fact that production has increased from 76,193 kg to 98,188 kg, during the same period.

CREDIT GOES UP IN WEST BENGAL

Short-term credit through Cooperative Societies will go up to Rs 13 crore in West Bengal this year, as against Rs 2.90 crore last year, thus reaching an all-time record in the last 15 years.

Of Rs 13 crore, Rs 10 crore will be available from the State Cooperative Banks and the rest from the District Cooperative Banks.

During the last seven months, the amount of credit realisation has gone up to Rs 6 crore, as against last year's realisation of Rs 2.90 crore.

The rapid economic growth and consequent increase in employment opportunities of the region will have perforce to depend on the proper utilisation of forest resources. The rich forests renewed by re-plantations are permanent sources of raw materials for wood-based industries. A species of wood with long fibres, which abound in the area, are suitable for newsprint pulp; while other hardwood trees with comparatively short fibres, are equally suitable for various grades of pulp. Besides, huge quantities of jute sticks, often wasted as fuel, can also be economically used for feeding the pulp mills.

Apart from the advantage of the proximity to rich sources of raw material, the completion of the Farakka barrage will make the transport of forest produce to Calcutta and other parts of the country easier and cheaper. This also gives a definite edge to North Bengal as the centre of a complex of wood-based industries. A scheme has already been proposed for setting up a particle board plant in North Bengal during the Fourth Five Year Plan.

Forest-based industries, however, suffer from some physical limitations. Of the total wood available, hardly 30 per cent is put to industrial use, while the balance is consumed as fuel, which can also be used for industrial purposes. Therefore, if the vast unutilised forest resources are to be properly utilised, the present pattern of utilisation should be suitably altered. Among other things, there is need for the expansion of wood-based industries.

The increase in marketing of industrial wood has facilitated the growth of saw-milling industry, mainly small-sized units. But the problem of making the best use of saw-dust and wood-chips, which add up to a sizeable waste, has to be tackled. Lack of capital also hinders the proper utilisation of these waste products. One of the ways in which saw-dust and wood-chips can be used profitably is by manufacturing particle boards, now being used extensively in homes and offices.

Cocoa Plantation in Tamil Nadu

About 6,073 hectares of agricultural land in Tamil Nadu will be put under Cocoa plantation. This will benefit the chocolate-producing factory, proposed to be set up in the region.

Of the total area under plantation, about 1,616 hectares will be in the Nilgiris district, about 405 hectares in Thengumarahada near Bhavani-sagar, while the rest will be in Ganguwar Odai in Madurai and in Tirunelveli district.

A Realistic Price Policy can Tackle the Problem of Soaring Prices

J. S. MAINI

THE Indian economy faces the problem of a general and continuous rise in the price level, affecting the common consumers. Despite an all-round increase in production during the last year, the wholesale price index with 1961-62 as base year stood at 180.9 in June 1970, showing an increase of 6.5 per cent over the corresponding period in the previous year. During the past few years prices have risen by more than 10 per cent per annum, whereas an annual price rise even at the rate of over 2 per cent to 2½ per cent adversely affects the economy. The table given here, showing the index numbers of wholesale prices reveals the magnitude of the price rise in recent years.

During the period, March 1969 to March 1970, Index numbers of wholesale prices for all commodities, food articles, food-grains, industrial raw materials and manufactured goods (finished products) have gone up from 164.8 to 175.7; from 186.2 to 199.3; from 192.3 to 213.7; from 171 to 187.6 and from 136 to 142.7 respectively.

Unfortunately, however, no serious thought has been given to the aspects of price inflation in the next five years. But a rising price level threatens to throw out of gear all Plan calculations which envisage a period of "Growth with Stability".

Wages and prices chasing each other lead to further price rises, posing great threats to the economy.

In fact, price inflation is caused not only by economic factors, but also by many extraneous factors including social and political factors.

On the economic side three main factors are responsible for the rise in price level. These are expansion in money supply, rise in population and shifts in people's incomes.

Rise in Money Supply

Money supply in India has followed a disconcertingly rising trend during the past few years. Money supply with the public has gone up from Rs 28,68.61 crore in 1960-61 to Rs 45,29.39 crore in 1965-66, to Rs 57,79.25 crore in 1968-69 and to Rs 63,53.65 crore in 1969-70.

Heavy doses of deficit financing by the Government and increasing amount of Government expenditures have also contributed to the increase in money supply. The present structure of the Indian economy cannot absorb this huge quantity of money, without bringing major stresses and strains in the various spheres of the economic activity. Along with it the existence of 'black money' pushes the price-level further upwards.

A total freeze in money-supply can stop the disproportionate increase in money-supply and prevent the internal value of the currency from falling further. Secondly, demonetization, involving change of currency with strict controls on the exchange of new notes for the existing ones is required for eliminating completely the black money in circulation,

Next comes the continuous rise in demand arising from a vast population increase at a rate of 2.5 per cent per annum. Shifts in income too lead to rise in prices through a rise in demand. Therefore, the shifts in income, except when these include transfer of income and wealth from the relatively rich to the relatively poor, should be minimised. Apart from this, the consumer goods industries should be provided more facilities and incentives to cope with the continuously increasing demands.

The official explanation for the price rise is that the higher purchasing power in the hands of the people benefited from the 'Green Revolution' is responsible for the soaring prices. If this is the case then the Government should, of course, resort to vigorous steps to mop up the savings from the rural sector and also impose income tax on agricultural income, so that the black money of the businessmen is not invested in this sector breeding more black money.

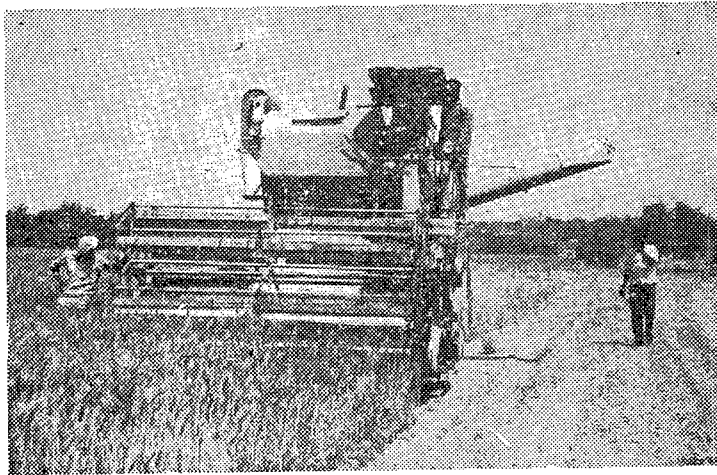
Man-Made Scarcities

Not only natural scarcities but also man-made scarcities are responsible for the price rise in India. The speculation on hoardings and creation of artificial scarcities to secure higher prices are resorted to in all industries, from *vanaspatti* to steel and automobiles. A disproportionate rise in the prices of food-grains causes another chain of multiple price rises in the economy, thus imposing heavy burdens on the fixed income groups.

For controlling this problem, a policy of a price-freeze coupled with a freeze in money-supply is required, which will ensure price-stability, essential for the success of the Plans.

Index Numbers of Wholesale Prices (1961-62=100)

	All Commodities	Food Articles	Food-grains	Raw Materials (Industrial)	Manufactures (Finished goods)
1965-66	131.6	144.6	154.3	132.8	116.5
1966-67	149.9	171.1	182.9	158.4	124.4
1967-68	167.3	207.8	228.4	156.4	127.3
1968-69	165.4	196.9	201.0	157.3	131.8
1969-70	171.5	196.5	207.3	180.1	139.5



DESERT RECLAMATION IN RAJASTHAN

IN the vast sandy stretches of Rajasthan, water is a scarce commodity and rainfall scanty. Way back in 1924, the Maharaja of Bikaner constructed a canal which was named after him as Ganga canal. A branch of this canal is feeding two big Central State farms at Suratgarh and Jetsar. The 12,120-hectare Suratgarh farm and the 8,888-hectare Jetsar farm hold a promise for Rajasthan's desert wastes, for man there is waging a tough battle against Nature. The effort to make the desert wasteland yield foodgrains and sustain greenery is backed by the use of the modern sinews of agriculture. A wide range of farming equipment has been employed on these farms. These machines are doing all kinds of operations—levelling, deep-ploughing and opening irrigation ditches.

The mechanisation of these operations has lent a fast pace to the

reclamation work. The farms have been divided into blocks of 1,616 hectares each, which again are subdivided into plots of 121.2 hectares. The smallest unit is a square of 6.06 hectares.

Cropping is planned ahead of the seasons. During the *rabi* season, wheat and mustard are cultivated and in *kharif* cotton, jute, sugarcane, cowpea, soyabean, castor and groundnut are sown.

These farms are able to supply large quantities of different varieties of quality seeds which are well dried and free of contamination because of having been grown in desert areas away from normal cultivation.

With more water flowing in the canal in the wake of the Indus Water settlement, the prospect of lush greenery blooming in the desert will no more be a mirage.

INDIANOIL TO REFUEL JUMBO JETS

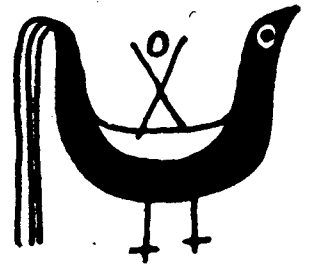
The Indian Oil Corporation, which meets 70 per cent of India's aviation fuel requirements from its own refineries, is now gearing itself to handle the needs of the Boeing-747 "Jumbo-Jets".

The Corporation has designed 45,000 litre refuellers for servicing the Jumbos, at a cost of Rs 7 lakh per unit.

It is also planning to have 85,000 litre refuellers to meet the needs of high capacity jets in the shortest possible time.

Indianoil is now supplying aviation fuel to 19 international airlines operating through different airports in India. These include Sabena the Belgian World Airlines, Syrian Arab Airlines, Ariana Afghan Airlines, Aeroflot, Thai International Airways, Quantas, SAS, JAL, Iran Air, Pan American Airways, Lufthansa, Saudi Arabian Airlines, KLM, and others.

IOC is also the sole supplier for the Indian Air Force and a bulk supplier for Indian Airlines and Air India aircraft.



QUOTATION BOX

The trouble with revolutions is they are so damned habit-forming. The supply of presidents exceeds the demand. But I am hoping to be in office again for a day or two in August.

—General Fernando Luiz Higgins, President of Bolivia

There is such a demand for girls to work in offices that it doesn't matter if they cannot read or write, let alone what colour their skin is. They only have to stand up and breathe.

—L. Somers in *The Daily Mail, London*

"Russians are going to the moon in seven years. What is the Indian going to do?"

"We will go to Russia".

—A censored dialogue from a Tamil film

A favourite Algerian game is to employ Russians or East Europeans on some grand technical scheme, and then call in American efficiency experts to keep a check on the: a model of positive non-alignment.

—Francis Hope in *New Statesman*

The Moroccans have their ancient monarchy, the Algerians their fat belly carved out of our land, and we Tunisians—well, perhaps we think we are a bit cleverer than the rest.

—A Tunisian politician quoted in *New Statesman*

The average waiting period for a phone connection increased from one year in 1956 to four years at the beginning of the Fourth Plan.

—Mr Sher Singh, Minister of State for Communications.

Of every 21 railway consignments one becomes a casualty in transit... For every rupee earned in freight the compensation paid is thrice as much.

—Mr R. B. Lal of Compensation Claims Committee

It was Humphrey Trevelyan's lot to preside, in part, over the dissolution of the British Empire. He began by serving the Government of India during the last two decades of the Raj. He finished with three missions to Arab countries which broadly covered the end of British power there.

—Adam Watson reviewing *Humphrey Trevelyan's Autobiography*

Creating a New Type of Indian Citizenship

Indian Unity. Edited by R. V. Ramachandrasekhara Rao. Publications Division, New Delhi. Rs 4.

Krishna Chaitanya

This compilation of writings on the theme of Indian unity by the leaders of the Indian re-awakening and others who had sympathy for its ideals is timely. But the timeliness at times comes home with a certain amount of poignancy, as for instance when we read Allan Octavian Hume summing up, in his presidential address to the Congress Session of 1885, the objectives of the national movement as "the fusion into one national whole of all the different and, till recently discordant, elements that constitute the population of India and the gradual regeneration along all lines, mental, moral, social and political, of the nation thus evolved." The movement, he added, was further intended "to foster a wider altruism and a more genuine public spirit, by concentrating the most strenuous efforts on great national questions and diminishing the absorption in local or purely selfish interests." These tasks, it would seem, yet remain to be completed.

Many of the earlier writers like Lala Lajpat Rai, Annie Besant, Surendranath Banerjea and others had cited historical parallels like the unification of Germany, Italy and Switzerland. The American "Melting Pot" had also fascinated them. Indianisation is a sinister concept if it implies that the minority should be assimilated into the majority's way of life. But it definitely is not a bad concept if the idea behind is the creation of a new type of Indian citizenship. In that sense it was strongly advocated by a man like Visvesvarayya. If variety exists, tension can be minimised by tolerance. But real unity cannot be built up that way. As Gandhiji pointed out, tolerance may imply

a gratuitous assumption of the inferiority of other ways of life. But what is really required is genuine respect for them. Bepin Chandra Pal also perceived this truth. He advocated what was basically an attitude of secularism and rationality, but he believed that this open-mindedness could be the basis for a deep interpenetration of traditions. A fine suggestion made by him is still to be realised. This was that people in each community who were genuinely religious—which im-

plied that they realised the universality of all religions—should attempt the interpretation of other religious traditions.

The paradoxical truth that unity could be fostered, not by a dogmatic and arbitrary centralism but through the maximum of local autonomy, was glimpsed by Subhash Chandra Bose. This leads in the direction of the real source of initiative which alone can regenerate a nation: the efforts of the people themselves. Modulating conceptually from engineering to social engineering, Visvesvarayya had, while emphasising this truth, also stressed that elitist guidance could help. He wanted the politician, the sociologist and the educator to put their heads together in planning the ideological and institutional bases of true nationhood.

It is time planned work started on these lines.

A Development and Investment Journal

Development and Investment. A weekly journal published by Gujarat Industrial Development Corporation and Gujarat Industrial Investment Corporation, Ahmedabad. Re 1.

M. R. Kulkarni

It is a welcome trend that the various investment and development corporations in the country are addressing themselves, in addition to their primary function of financing development, to varied ancillary activities without which financing would serve a limited purpose. These activities comprise pre-investment surveys, locating areas of good investment potential, encouraging, educating and even discovering young dynamic entrepreneurs. The development corporations in Gujarat have sponsored "Development and Investment", a weekly journal to serve the cause underlying these activities. More specifically, the declared objective of the journal would be to encourage state-level research and analysis of the problems and potential and the dynamics of development at micro level. Such an effort on the regional level has been a long-felt need. Lack of grassroot planning has been one of the serious weaknesses of our planning. Planning in the

past has been too much centralised with the result that it has not adequately strengthened the centrifugal forces of development. The Fourth Plan has now rightly placed the accent on area and district planning.

While emphasising the need for regional planning and local initiative it is essential to sound a note of warning that the regional approach does not clash with national interests. The two must be properly integrated and their interdependence borne in mind. Otherwise, there is the danger that the concern with regional problems and interests may degenerate into narrow parochial attitudes. It must not also happen that such a journal becomes a platform for lobbying for unjustified local demands.

It is reassuring to find on the basis of the first few issues of this journal that it has, on the whole, a correct orientation. As should be expected, the issues look rather exploratory, groping for a more well-defined orientation. One would only hope that, while seeking for a more clearcut personality, the journal would retain its freshness and would not fall into the rut of a provincial publication dishing out second-hand information easily available from routine sources.

Balanced Outlook on Rural Problem

The Indian Rural Problem by Manilal B. Nanavati and J. J. Anjaria. Indian Society of Agricultural Economics, Bombay. Rs 20.

B. N. Nair

The seventh revised edition of this valuable publication has appeared in the market not a day too soon. Professor M. L. Dantwala has enlisted the co-operation of a number of scholars in bringing out this revised edition and given it breadth as well as depth in its treatment of several current rural problems. As the Doyen of Agricultural Economists in the country he has imparted to the task of revision some of his characteristic zeal and sense of thoroughness combined with dignified prose. Part V of the book covers agricultural development in the three Plans and touches upon important aspects such as the new agricultural policy, the green revolution and the reorientation of agricultural credit. In Chapter XX, a review of the Indian rural problem has been attempted with stress on a number of current issues.

Problems of Planning

Planning at the State Level in India by Ajit Kumar Singh. Pages 42; and *Manpower Planning and Employment in India* by P. Sitapati. Pages 37. "Commerce" pamphlet series.

A. N. Prabhu

The more or less well known problems of Indian planning have been brought into correct perspective by Mr Ajit Kumar Singh in this brief paper. He has fortified his argument with authoritative quotes. He spotlights various aspects of state planning and underlines its weaknesses. The author rightly emphasises the need for a permanent secretariat for the National Development Council for greater involvement and consultation of the States. He reiterates the suggestion for the creation of an inter-state council to resolve conflicts and tensions, which are so much in evidence of late. The paper has a short select bibliography.

This revised edition ends with a note of timely caution *a la* Gunnar Myrdal that "problems of development cannot be solved in terms of the Western model or any set model; that the approach will have to be in terms of social as well as institutional changes; and that while expectations are rising fast, performance has still lagged behind. There indeed, lies the challenge." The contents of the book impart a high degree of balanced outlook, and a sense of reality at a time when foreign-returned production economists are seeking post haste to bring about complacency through the widespread canvassing of production functions and plead for an induced agricultural development under foreign counsel, much to the overall negligence of problems such as land reforms.

The book is moderately priced and will continue to be an indispensable reference volume for students of Indian economics in our universities. Perhaps, its continuing popularity is a pointer that there is a basic need for books of this variety by Indian scholars themselves.

In the other pamphlet Mr Sitapati has handled the subject of manpower planning at the state level with the authority of an experienced man. Manpower, which is the basic capital of a country, has to be utilised to the maximum possible extent. The need for organising manpower planning in a democracy, and more so in a federal set-up, has been examined in all its aspects. The author says there should be more persuasion and central leadership than statutory fiat or central directives. He pleads for a second look at the manpower planning organisations at the Union and State levels and strengthening of institutional arrangements.

TO KNOW INDIA
READ YOJANA

Ahilyabai: A Powerful Personality

Ahilyabai by Hira Lal Sharma. National Biography Series, National Book Trust. Pages 123. Rs 2.25.

S. Prasad

Among the remarkable women thrown up by Indian history, Ahilyabai Holkar has an assured place. Her character does not change under the hard glare of history. The colours remain practically the same as reflected in the folk-lore about her—the picture of a virtuous, dedicated woman, who resurrected several Hindu shrines. But history is a lot besides folk-lore, and some interesting facets are added to Ahilyabai's personality, which though not new, are not so widely known. It is a powerful personality that finally emerges, rising above recurring personal tragedy. Here was a woman who lost her husband, while still young, her father-in-law, who was her mentor, a little later, and then her only son and her grandson, whom she wished to appoint her successor, followed by the death of her only daughter and the son-in-law. It could have broken any ordinary mortal. But it could not extinguish the glow of life inside Ahilyabai. And as each tragedy struck, it only steeled her heart to a greater purpose. There is hardly any doubt that to provide inspiration to lesser mortals, the subject is a wise choice by the National Book Trust.

What was the urge that drove her forward? With others, it could have been the lust for power, but with Ahilyabai it was different, the book tells us. It was to justify the trust and confidence reposed in her by her warrior father-in-law. She proved herself as accomplished on the battle-field as in statecraft. Actually, her claim to posterity would seem to be based as much on her success in administration as on her philanthropy. This is how historians have assessed her.

The author has divided the book into thirty chapters, to delineate Ahilyabai's various qualities as a housewife, a widow and an administrator. The language is simple, though not always elegant. But it manages to bring out her personality effectively.

BIG DEEDS HUMBLE MEN

*In this feature
Yojana seeks to present
the outstanding achieve-
ments of some of the
many millions of obscure
men and women who
are working to build
tomorrow's India.*

BACHAT GRAM

Baharganj, a small village in Contai sub-division of Midnapore district of West Bengal, has aptly earned the name of Bachat Gram. Each family of this village has a small savings account. A special post office has been opened in the village since February 11 this year to transact savings bank business.

It all started when the District Savings Officer of the Central Government, with the help of the Block Development Officer in September 1969, started an intensive campaign for small savings among the villagers. It immediately caught the fancy of the people and on the very first day 180 savings accounts were opened. The number of these accounts has now risen to 204 and the village has a savings balance of nearly Rs 5,000. On an average, 30 transactions are made every day.

IMPRESSIVE ACHIEVEMENT

Ram Amruta Shinde, a small holder of Maralak, in Nanded district of Marathwada, has become a household legend in the surrounding villages. He grew 24 quintals of Jowar on 60 hectares of land. The average yield in this area from local variety is four to six quintals per .40 hectares. Shinde's success in this comparatively backward area has induced half the cultivators in the neighbouring villages to follow his example.

When asked about the secret of his success, Shinde said that it was

all due to the new methods of cultivation which he adopted under the guidance of the local agricultural officer.

A PROGRESSIVE VILLAGE

The credit for bringing about a marked change in the economic condition of the farmers of Zhala village, in Gewar Patti of Almora district goes to Laxman Singh Manral.

In collaboration with another farmer, Manral produced four quintals of hybrid seed Kalyan Sona-227 from only 4 kgs of seed. This yield was sold to other farmers and about 300 farmers benefited by selling this high-yielding variety seed. Within two to three years the crop increased by five to six times.

Manral at present is engaged in experimenting in animal husbandry and running a chemist's shop. Recently he won an award of Rs 50 from the Commissioner of Kumaon for his meritorious service in inducing the farmers to take to small savings.

NOTHING LIKE SELF-HELP

That co-operation and self-help can bring prosperity and progress to a backward village has been amply demonstrated by the inhabitants of Ambi-Dumala, a small village in Sangamner taluka of Ahmednagar district.

The story started in 1963, when the residents of Ambi-Dumala decided to construct a bridge on the river Kas. Overwhelmed by their zeal and constructive way of thinking, an engineer came up to give all the technical help required. With his efficient guidance, the bridge was ready after two years of continuous work. However, all this was achieved without any financial or technical assistance from the Government.

Extremely satisfied with the work Shri Shankarrao Kale, President of the Zila Parishad, who also happens to be an engineer, announced a contribution of Rs 20,000 on behalf of the Zila Parishad.

What was to be done with this amount? The small boys shouted. "We want a school building." The elders consented immediately and a beautiful school building also came up. It was a happy day for the people. Along with the bridge, they got a school building too.

A NEW DEAL FOR WEST BENGAL INDUSTRIES

Industries in West Bengal in the public sector as well as in the private sector, will receive liberal loans from the Industrial Development Bank of India and the Life Insurance Corporation. The credit policy of these institutions will help boost up the economy of the State. A local committee of the IDBI is likely to be set up for looking into the credit requirements and other needs of the industries in the State.

Apropos to this policy, two new thermal power units, proposed to be installed at Santaldih in West Bengal, are likely to receive additional assistance from the IDBI and the LIC.

The IDBI is understood to have further agreed to provide Rs one crore annually for three consecutive years for the improvement of Calcutta's transport system.

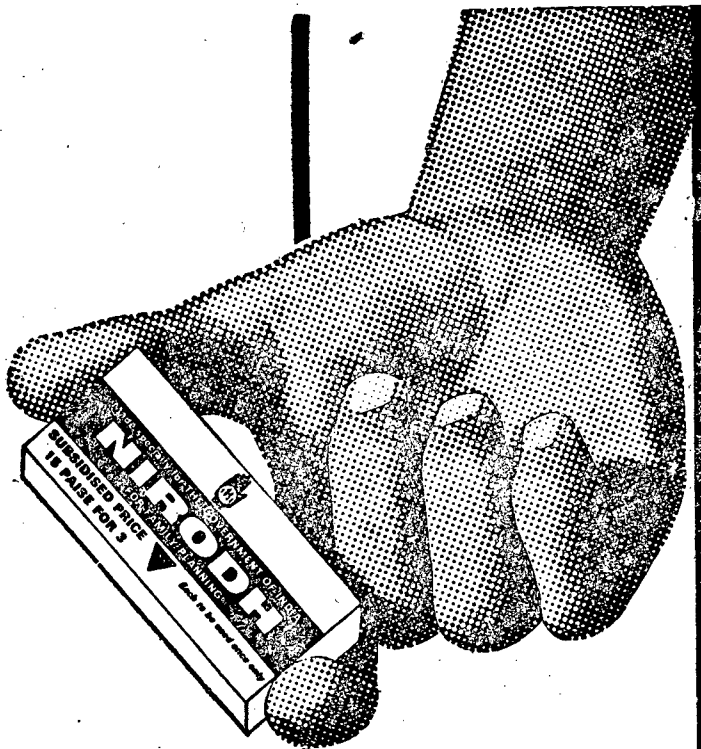
On guarantee from the State Government, the Life Insurance Corporation too is likely to advance loans for meeting the needs of water supply and housing construction in municipal areas, not covered by the Calcutta Metropolitan Development Authority. Special schemes would be taken up by these institutions for financing the small entrepreneurs, specially the unemployed engineers.

The State Government is receiving fresh applications for industrial licences.

RECORD RISE IN ASSAM'S SMALL SAVINGS

In 1969-70, small savings in Assam recorded the highest rise since 1960-61. The total gross collection was around Rs 18.97 crore and net collection around Rs 4.05 crore, including the estimated interest. In 1968-69 the gross collection was about Rs 15.50 crore and net collection Rs 3.47 crore.

Considerable progress in the matter of opening new Post Office Savings Bank accounts and new Cumulative Time Deposit accounts has also been made. During the year 50,852 new Post Office Savings accounts, 14,556 new Cumulative Time Deposit accounts and 51 new Fixed Deposit accounts were also opened.



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MERCHANTS, PAN SHOPS ETC.

70/61

A. C. LOCOS BASED ON INDIAN DESIGN

The Chittaranjan Locomotive Works are under orders to manufacture 141 electric locomotives—84 AC and 57 DC—within the next four years.

The prototype of the AC loco, which will be based on a completely indigenous design, is expected to be turned out next month.

The order for 84 such locomotives will be completed by 1973.

The order for 57 heavy freight locomotives to replace the existing freight locomotives on DC electrified section of the Central Railway is due to be completed within the next four years.

The prototype of this DC locomotive is likely to be ready in October, and after tests, production will be taken up.

The Chittaranjan Locomotive Works is also working on a design

of an electric locomotive for the Vira-Sabaramati section which could operate on both DC and 25 AC sections. This prototype may be ready early in 1972.

The manufacture of electric locomotives was first taken up in 1961 and till March 1964, 21 DC locos had been manufactured at Chittaranjan.

With the bulk of electrification work of Indian Railways being on AC, production of AC locos was taken up in 1963-64 and 227 AC locos have so far been manufactured.

The indigenous content of the locomotives has been steadily going up. The imported content came down from 58 per cent in 1961-62 to 22.3 per cent in 1970.

Indian Railways had over 500 electric locomotives in operation in 1969.

FUNICULAR BRICK SHELL ROOFS

A completely unreinforced brick shell roof measuring 12.5 m x 12m has been built by the National Institute of Designs, Ahmedabad, using country bricks. The successful construction of this roof has opened up vast possibilities for the application of the new technique for the construction of large roofs to provide unobstructed column-free space required for warehouses and industrial structures.

High voltage rectifiers

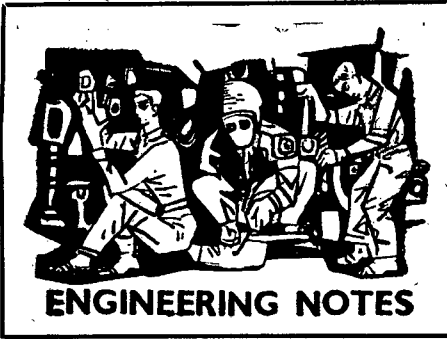
Khandelwar Hermann Electronics Pvt. Ltd., of Bombay, are now producing, for the first time in India, High Voltage Cartridge Type Selenium Rectifiers from 1KV to 6 KV. These rectifiers are used for high voltage power supplies such as X-rays, television, oscilloscopes, EV testers and radar equipment.

The company, which was established with the technical and financial participation of Hermann K.G. of W. Germany, has already exported to Ceylon battery elimina-

tors for using transistor sets by AC mains. Trial samples of miniature selenium rectifiers, manufactured for the first time in India, have been sent to USA, France and UK, and the reports are said to be encouraging.

India-Made Grinding Machine

The first wholly indigenous grinding machine manufactured by the Machine Tool Corporation of India Ltd., Ajmer—a public sector undertaking, has been delivered to a private firm in Indore. The machine, called the Tool Post Grinding Attachment is useful to all mechanical engineering workshops and industrial training institutes and is specially suitable for small and medium scale industries. The basic design which was obtained from the Central Machine Tool Institute, Bangalore, was modified and further improved in the Corporation's own design office. The Corporation is now engaged in the production of more sophisticated grinding machines in collaboration with Czechoslovakia.



A SMALL THRESHER FOR SMALL HOLDINGS

A small thresher suited to holdings up to 10 hectares, has been designed by the Indian Agricultural Research Institute, New Delhi.

It is named "Pusa Junior Thresher."

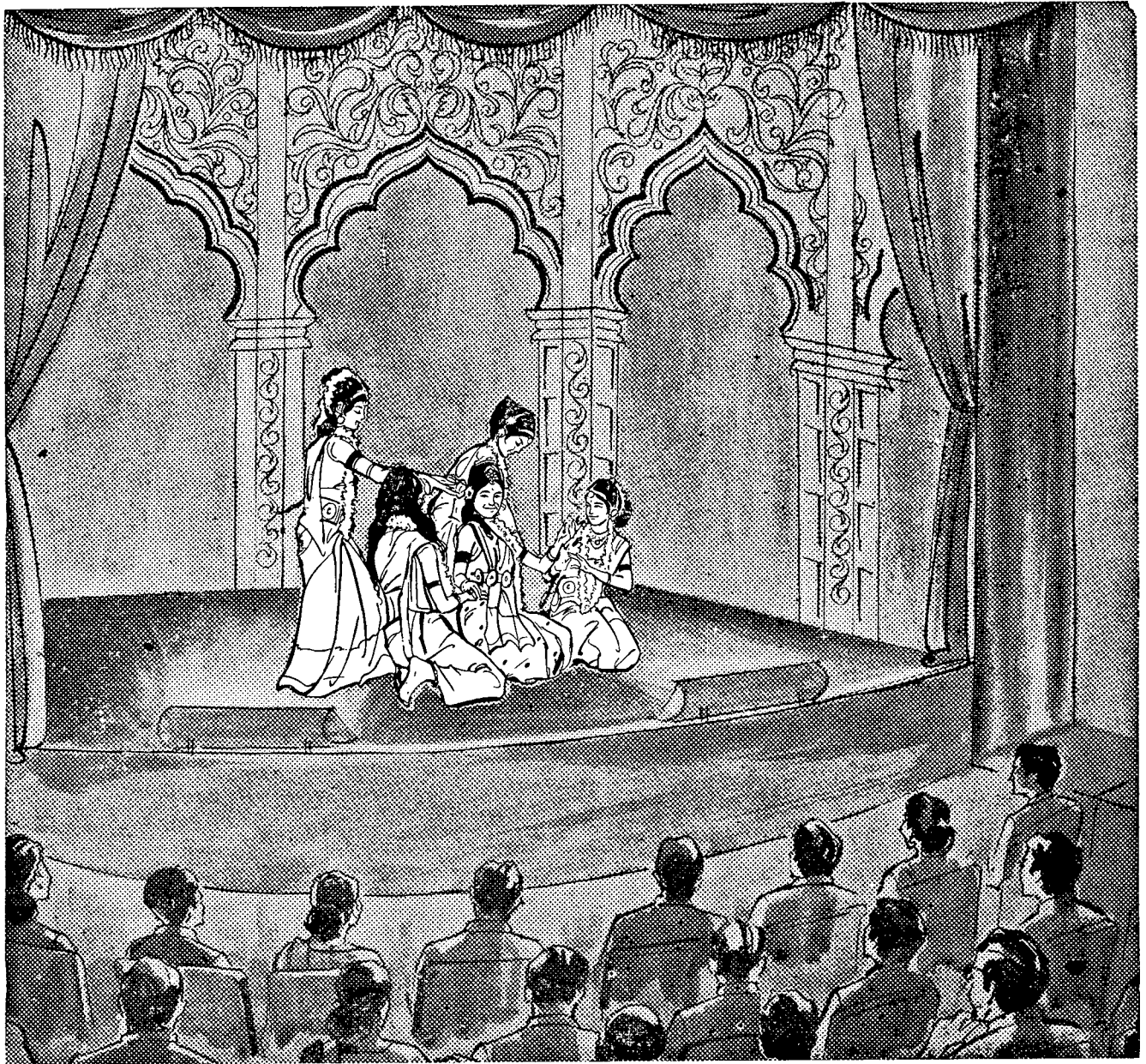
The machine can be operated with a two H. P. motor, petrol engine, power tiller or a 4-wheel tractor. Its capacity is about one quintal of clean grain per hour. For threshing a quintal of grain (wheat), its power requirement is only 0.45 H. P. compared with about 2.5 H.P. needed by common threshers.

METAL-TYPE PLASTIC WITH MANY USES

The Shri Ram Institute for Industrial Research has developed a new metal-type plastic called ABS Engineering Plastic which may bring about a "plastic revolution" in the country.

After nearly four years' research the Institute has produced it from indigenous petro-chemicals. It can replace steel and non-ferrous metals used in many appliances. For example, it can be used in car bodies and scooters, typewriters, telephone casings, parts of railway coaches and the inner lining of refrigerators. It is more durable and economical if produced in bulk.

Contributors are requested to use only metric system of weights and measures.



Not by bread alone

Cultural activities mean a fuller life. These need not be confined to the well-to-do; at least, not in Jamshedpur, where the Community Centres in the low income areas provide ample scope for self-expression and enjoyment. The other activities at these Centres include sewing and knitting classes, kindergartens; music and dance classes.

This urban Community Development Programme owes its success to the enthusiasm of the participants and the spirit of the Steel Company which cares deeply for the welfare of the people of Jamshedpur.

TATA STEEL

Development Diary

UNICEF will provide financial assistance to the extent of Rs 8.6 crore during the Fourth Plan for strengthening of health services in India, for which an agreement has been signed. Under the agreement, UNICEF will provide equipment, supply drugs and diet supplements and give financial grants. The Government of India, in the same period, will spend Rs 241.21 crore on this project in addition to the expenditure to be incurred by the State Governments.

* Five plants are being set up in Hyderabad as part of the nuclear fuel complex to manufacture nuclear grade uranium and other material for the country's nuclear power plants. They will help save foreign exchange worth Rs 5.5 crore annually.

* India's exports of sewing machines to Britain increased from Rs 5,54,300 in April-December 1968 to Rs 8,78,254 during the corresponding period in 1969.

* The National Dairy Research Institute at Karnal has been successful in producing dry cheese which will increase the shelf life of processed cheese. Having a compensation of 4.55 per cent fat and 42.25 per cent milk proteins plus other minor milk constituents, dry cheese can be reconstituted readily into cheese spread by adding warm water equal in quantity to the weight of the dry powder.

* Hindustan Housing Factory, a public sector undertaking, achieved a record out-turn of Rs 1.93 crore during the year 1968-69 as against Rs 1.80 crore in 1967-68. During 1968-69 the factory earned a net profit of Rs 7.58 lakh.

* In its one year of operation, the Rural Electrification Corporation has approved 50 schemes costing Rs 30.26 crore. These schemes sponsored by the State Electricity Boards and pilot co-operative societies will electrify 4,404 villages, energise 85,404 pump sets and 12,771 LT industrial

connections. In addition, the Corporation has given a loan of Rs 6.51 crore to the three co-operative projects in Mysore, Andhra Pradesh and Gujarat. These projects on completion will provide electricity to 401 villages, energise 18,611 pump sets and 851 LT industrial connections.

* The Rs 90-crore Pochampad Irrigation Project in Andhra Pradesh has been commissioned. Designed to irrigate about 200,000 hectares of land in Nizamabad and Karimnagar districts of Telengana, the project will help produce nearly 11 lakh tonnes of foodgrains valued at over Rs 73 crore.

* The Council of Scientific and Industrial Research has approved eight new research projects and 92 research schemes. The projects include the manufacture of some rare biochemicals at Vithalbhai Patel Chest Institute, New Delhi, and the establishment of a multi-purpose hydro-metallurgical testing unit for nickel and other non-ferrous metals at Jamshedpur.

* The Fertiliser Plant at Rourkela has won the National Safety Award for the second time for achieving the highest percentage of reduction in accidents.

* A Public Sector Cotton Corporation has been registered in Bombay, with an authorised capital of Rs 5 crore. It will take over shortly the entire import trade in cotton and will also provide ready market to cultivators growing new varieties of extra-long staple cotton.

* Since the nationalisation of fourteen major banks, bank deposits, as a whole, have increased by Rs 655 crore. Of this, the nationalised banks account for Rs 570 crore. Bank credit increased by Rs 710 crore, out of which the nationalised banks accounted for Rs 637 crore.

* The total production in 1969 of the five State farms at Suratgarh, Jetsar, Hissar, Raichur and Hirakud was worth nearly Rs 8 crore. The Suratgarh farm, the biggest in Asia, produced crops worth Rs one crore.

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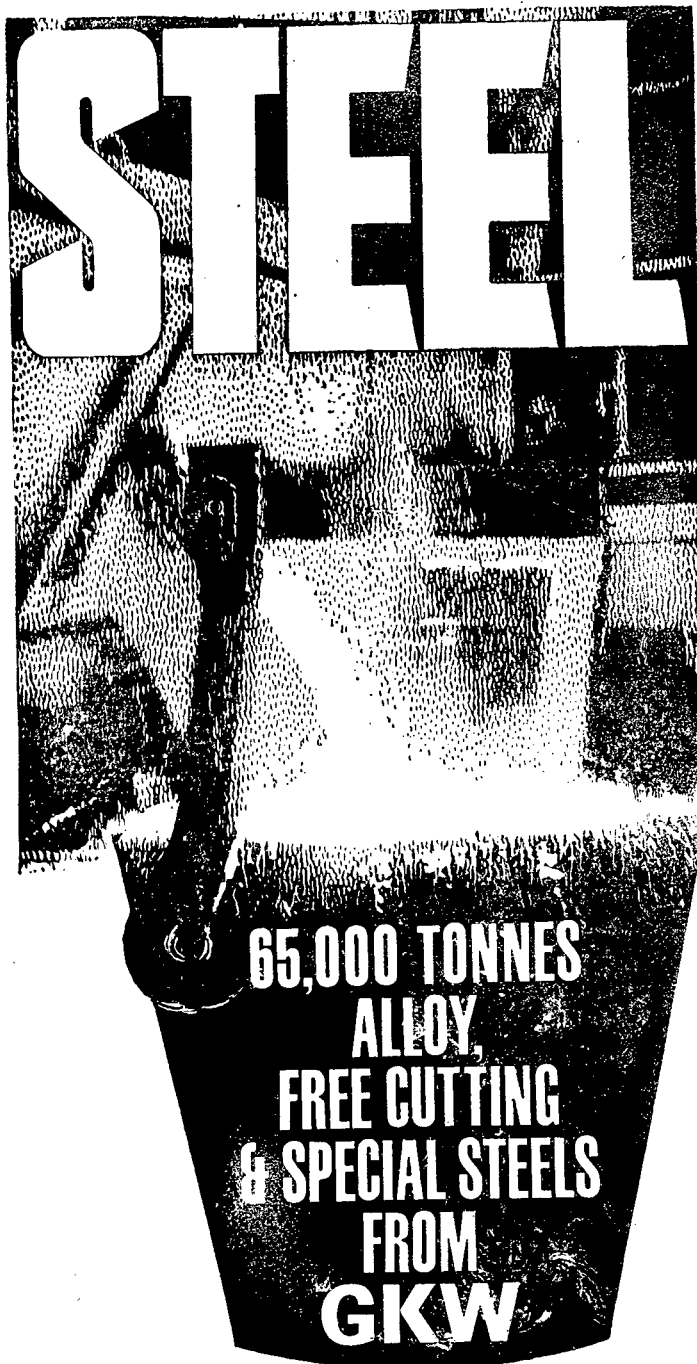
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