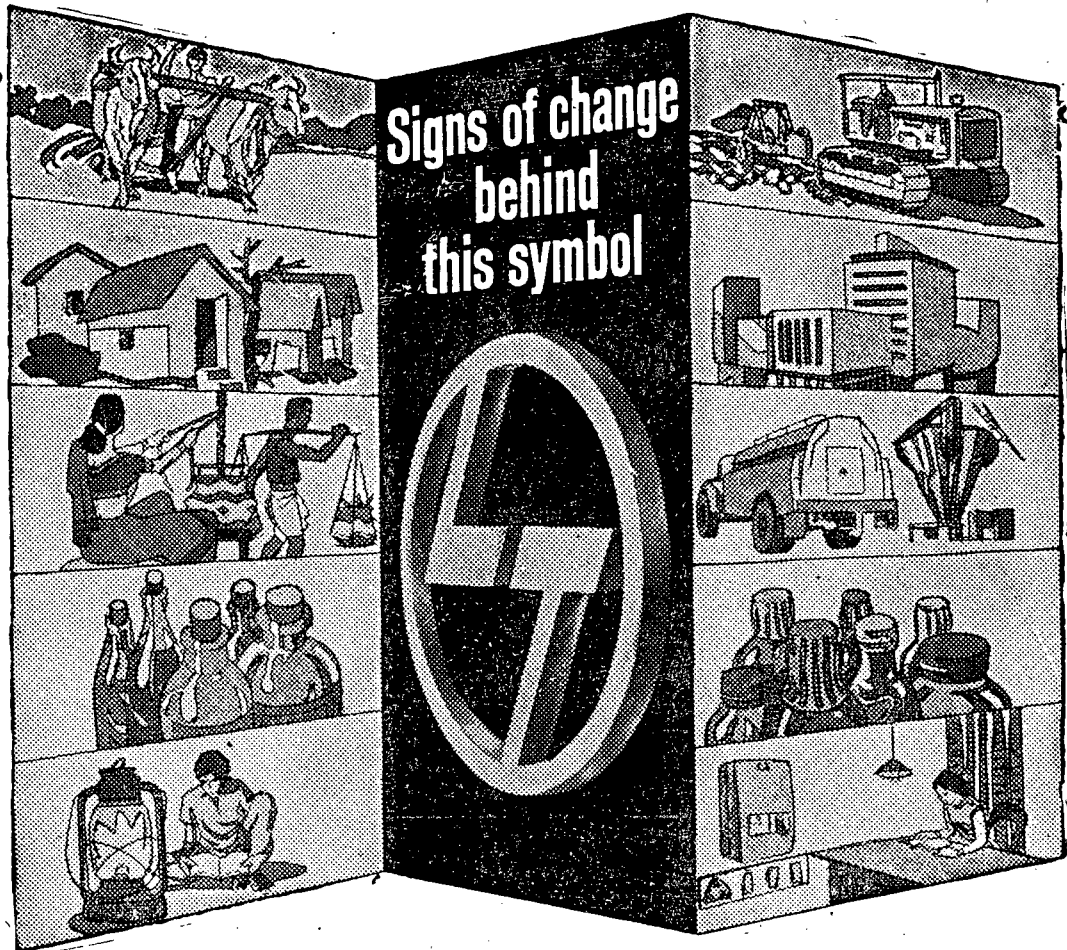


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S. SRINIVASACHAR

IN THIS ISSUE

ECONOMIC SURVEY	4
UNION BUDGET	8
SYMPOSIUM ON BUDGET	12
DECADE OF AGRICULTURE S. L. SAH	21
DECADE OF PROGRESS IN EDUCATION D. P. Nayar	22
CEMENT INDUSTRY—A SURVEY N. G. Chaudhry	28
LIME DEPOSITS FOR CEMENT S. M. Mathur	31
GREY HERON M. Krishnan	36
BLINDNESS IN THIRD WORLD	39

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EDITORIAL

An epoch-making budget

WITH A FULL fortnight behind us since Shri Subramaniam presented his second Budget to the Parliament the people have had the benefit of wide-ranging comments. It would, in a sense, be redundant to cover the same ground all over again. But one thing stands out very conspicuously from the public reactions so far expressed: the Budget has received welcome from almost every quarter, opinions ranging from subdued optimism to uninhibited jubilation. Even a well-known critic and scholar like N.A. Palkhiwala has characterised this budget as an epoch-making one.

The Budget has made an electrifying impact on the public, not merely in the psychological sense by virtue of reductions in personal taxation and the government's determination to hold the price line; its positive contribution to planned development springs from a philosophy of pragmatism suffused with a deep concern for future growth and the elimination of economic and social injustices which have so far inhibited such growth. Plagued as we were with alternating crises arising from droughts, war, inflation and a myriad uncertainties on the home front, the Government had been hard put to it for many years to find a viable method of ensuring steady economic growth in an atmosphere of discipline and commitment. Thanks to the emergency, good harvests and a resurgent sense of dedication to common weal, India can now be rightly proud of having arrested and controlled a run-away inflation and infused into the economy a high sense of self-reliance by achievements of technology and better management efforts, more particularly in the public sector.

In the Plan outlay for 1976-77 there is an unprecedented step up by 31.6 per cent on top of last year's 23 per cent increase with the additional advantage of inflation being now firmly under control. This in itself is bound to help vastly the demand-starved industries in the private sector benefiting thereby both agriculture and the common consumer. The budget and the Plan allocations have placed the right emphasis on irrigation, power, fertilisers, pesticides, oil exploration, steel, coal and cement. With the Prime Minister's 20-Point programme providing the backdrop to new and massive investments in the infrastructure of the economy and the entire administration being geared up to higher levels of dedication and efficiency, the coming year promises to break new ground in our march to economic strength and social stability.

One of the features of the budget most commented upon is in regard to direct taxation. Far from being a concession to the rich, this bold experiment in reducing the tax burden at the highest marginal rate to 66 per cent against the earlier 77 per cent will cut at the root of evasion and increase the quantum of private savings. This, combined with reductions in wealth-tax rates and the abolition of additional wealth tax on urban property must be matched with the rather sharp increase in the rate of Compulsory Deposit by the more well-to-do tax payers before one is tempted to criticise the Finance Minister for being a little too soft on the rich. Any loss to public savings arising from the reduction in these rates will be more than made good by the disincentive to the accumulation of black money and all the economic and social evils flowing from it.

In sum, it is difficult to see the budget except as a most sensible and pragmatic response to the economic situation prevailing at the moment in which both the Government and the people are called upon to do everything possible not only to consolidate the gains already achieved since the declaration of the emergency but make it the starting point of a grand take-off to newer and vaster gains. □

**GNP UP BY 5.5 PER
CENT**

**PRICES DOWN BY
8 PER CENT**

NEP Gains Presage Greater Growth

Economic Survey 1975-'76

THE PRE-BUDGET Economic Survey for 1975-76 presented to Parliament by the Finance Minister, Shri C. Subramaniam, on March 8, 1976, strikes an optimistic note in assessing the outlook for the next financial year.

Noting the exemplary way the country has tackled the grave economic crisis of 1972-74 the Survey points out that such positive developments as the declining trend in prices, the favourable prospects for economic growth in the current year and the much greater emphasis on economic discipline since the government launched the New Economic Programme, have now cleared the decks for a more purposeful growth-oriented strategy. Looking back on the past year the Survey declares the sustained declining trend in the general price level as the "most significant achievement". The latest available wholesale price Index for the week ended February 14, 1976 indicates a decline of 8 per cent compared to the level 12 months ago.

Similarly, the latest available consumer price index for December 1975 shows a fall of 6.1 per cent compared to the index in December 1974.

Thrust on Investment Front

The Survey refers to the improvement in the price situation and is of the opinion that government could step up the plan investment in 1976-77 without undermining the price stability. It also stresses the need to take advantage of the encouraging trends in the procurement of foodgrains and the comfortable foreign reserve position for taking some well calculated risks in a major thrust on the investment front.

Industrial growth rate cannot be stepped up simply by relaxation of fiscal and monetary discipline even though these policies have to respond quickly to changes in basic economic conditions. A viable strategy for sustained growth of industrial production must involve an increase in investment, improvement in agricultural productivity and a more determined export drive. Regarding the agricultural output in 1976-77, the prospects are of an all-round improvement in supply of vital inputs like power, fertilisers and high quality seeds, besides the prospect of bringing an additional 5 million hectares under major and medium irrigation, expansion of rural electrification and further utilisation of water potential through settlement of inter-state water disputes.

Envisaging the need to double the growth rate of the last 10 years, the Survey points to the need to sustain an overall rate of economic growth of 5.5 to 6 per cent.

Although mass poverty cannot be removed in a short period of time, yet given the necessary political will and exercise of strict economic discipline, we can hope to soften considerably the harsh contours of extreme poverty. In this context the Survey urges the need to build on the positive results achieved in 1975-76 particularly after the launching of the New Economic Programme so as to work out a comprehensive medium term strategy for self-sustained growth.

The economic performance in 1975-76 was greatly facilitated by favourable weather conditions. But any false sense of complacency about the magnitude of the task is unwarranted. That is why industrial production would have to grow twice as fast as in the last decade.

The Survey lays great stress on the fact that the removal of the wage goods barrier to accelerated growth is vitally linked to the performance of our agricultural sector. It emphasises that an effective solution to the problems of rural poverty and underdevelopment can be found only in the framework of an integrated strategy for rural development based on detailed analysis of local needs, resources and potentialities.

Emphasising the need for strengthening of arrangements for production and procurement of foodgrains, the Survey warns against excessive reliance on imports. In order to increase agricultural production, emphasis would have to be placed on the development of major command areas, improvement in production technology and appropriate economic incentives to farmers to adopt new technology.

Emphasising the need to augment public saving the Survey refers to the need to earn a high rate of return on investment in the public sector through efficient utilization of available capacities supplemented by more rational pricing policies. Among the other musts to maintain price stability and economic growth in the year to come are: mobilisation of domestic savings, reduced incentives for generation of black money, and ploughing back of surplus incomes into socially productive channels.

The Survey indicates that self-reliance demands that exports should grow at an annual rate of 8 to 10 per cent in volume and

that there should be reduced dependence on imported sources of energy. It commends the efforts now made in the field of oil exploration and notes that the medium term prospects are fairly promising. Noting that in the last two years a serious attempt has been made to streamline export policies and procedures, the Survey emphasises that much still remains to be done.

The success of the Government's anti-inflationary policy, resulting in a sustained declining trend in the general price level is all the more praise-worthy, according to the Survey, as it has been achieved despite sharp increases in import prices of such sensitive products as fuel, food and fertilisers since 1973. The Survey's assessment is that price stability is likely to be accompanied by a substantial improvement in the overall rate of growth of the economy in 1975-76. It also highlights the many gains due to the growing emphasis on strict economic discipline since the launching of the New Economic Programme.

Rate of Growth

The rate of growth of national income which had averaged 3.3 per cent during the Fourth Plan period, increased by only 0.2 per cent in 1974-75, the first year of the Fifth Plan. However, in the light of the record agricultural production and uptrend of industrial output, the Survey's prognosis for 1975-76 is that the national income would rise by 5.5 per cent. The survey is optimistic about the growth performance of the economy in the next two or three years because of efforts being made to increase agricultural production and to improve the performance of the public sector.

Net domestic savings and net investment, expressed as a percentage of net national product at current prices declined from 13.6 per cent and 14.4 per cent respectively in 1973-74 to 13.2 per cent and 14.2 per cent in 1974-75. The Survey attributes the decline in domestic savings of inflationary pressures which afflicted the economy in 1972-73. However, the Survey anticipates that the revival of economic growth in 1975-76 will be accompanied with some increase in savings ratio. Likewise, investment rate is also expected to go up in 1975-76 in view of the large increase in plan outlay.

The Survey estimates foodgrain production this year at 114 million tonnes of which the *Kharif* harvest accounts for 70 million tonnes. While this is a big improvement

compared to the drought year of 1974-75, the Survey observes that the *khariif* production has been only marginally higher than the 1970-71 level of 68.9 million tonnes.

Discussing the prospects for commercial crops, the Survey states that with the exception of raw jute, the outlook for most other commercial crops is highly encouraging. While raw cotton production might stabilise at the record level achieved in 1974-75, production of sugarcane (in terms of gur) might show a marginal improvement in 1975-76 over last year's production. The production of major oil seeds is expected to be around 10 million tonnes. This only indicates "the unfinished task that lies ahead in modernising our agriculture, says the Survey.

Discussing the problem of modernisation of Indian agriculture, the Survey has called for a judicious blend of technological progress and institutional reforms. Enumerating the key elements under the former such as adequate water supply, liberal use of fertilisers and progressive improvement in the quality of seeds, the Survey emphasises in particular the need to bring as soon as possible five million hectares of land under major and medium irrigation included in the New Economic Programme. It also expresses concern at the current trend in the consumption of fertilisers which has not been encouraging despite price reductions.

Regarding institutional reforms, the Survey commends the renewed emphasis on speedy implementation of land reforms and enforcement of the laws relating to the minimum wages of agricultural workers as part of the New Economic Programme as means to ensure a fairer distribution of the fruits of economic progress in rural areas. Expressing satisfaction at the progressive increase in the institutional credit to rural sector, the Survey states that the starting of rural banks will further supplement the existing facilities, particularly to the small and marginal farmers.

The Survey observes that industrial production which had declined by 0.2 per cent in 1973-74 recovered in 1974-75 and showed an increase of 2.5 per cent. On the basis of available data for nine months in 1975-76 and the prevailing trends, the Survey forecasts an increase of 4.5 per cent in industrial production for 1975-76. While production in some vital industries as coal, iron and steel, electricity, cement etc. has gone up, others like cotton textile, consumer durables, and some branches of chemical industries like plastics have shown a declining trend.

According to the Survey, the slackness in consumer demand for some industrial products is responsible for this declining trend. However, as the slackness in the demand for the products of these industries differ from industry to industry, the Survey warns that industrial growth rate cannot be stepped up simply by relaxation of fiscal and monetary discipline even though these policies have to respond quickly to changes in basic economic conditions. A viable strategy for sustained growth of industrial production must involve an increase in investment, improvement in agricultural productivity and a more determined export drive.

The Survey has also described the various measures taken to stimulate industrial investment especially since the launching of the New Economic Programme. In this connection, the Survey refers to the relaxation of price controls on a number of industrial products, extension of dual pricing to aluminium, delicensing of 21 industries, permission for automatic growth in capacity for selected engineering industries and

quick disposal of applications for diversification, expansion, etc.

A heartening feature in the industrial scene referred to in the Survey relates to the industrial relations which have shown distinct improvement following the appeal by the Prime Minister to workers and management to resolve industrial disputes without resort to strikes and lockouts. In consequence, the man-days lost through industrial disputes have come down dramatically from 0.83 million in July, 1975 to only 0.13 million in September, 1975.

The Survey observes that calculated risks have to be taken to increase plan investments in view of improved agricultural conditions and the successful measures against hoarders and speculators besides the encouraging procurement of foodgrains in the current year which is expected to exceed 4.6 million tonnes. While commending the flexible price and distribution policies of the Government, the Survey, cautions that in a predominantly agrarian economy like ours, fluctuations in agricultural output could easily upset price stability. It has, therefore, emphasised the need to strengthen the system of procurement and public distribution of mass consumption goods such as foodgrains.

The Survey notes that having arrested the price rise, the Government's fiscal and monetary policies during 1975-76 were aimed to provide a stimulus to investment and growth through incentives to savings and by diverting them to sectors of high priority. The Annual Plan outlay for 1975-76 was higher by over 23 per cent over that of previous year, besides further allocations later in the year on irrigation and power.

The Survey records that during the first nine months of 1975-76, all major taxes of the Central Government like income and corporation taxes, customs and excise showed considerable buoyancy. Market borrowings were Rs 128 crore more than estimated in the budget. External assistance is also expected to be higher than budgeted. Under the Voluntary Disclosure scheme, the total income and wealth disclosed amounted to Rs 7440 million and Rs 8340 million respectively aggregating Rs 15780 million. Income tax and wealth tax payable on these disclosed amounts are estimated to be Rs 2410 million and Rs 77 million respectively. Notwithstanding the fact that Rs 1590 million of income tax and Rs 42 million of wealth tax have been paid and Rs 49 million have been invested in Government securities, the Survey observes that five instalments of additional dearness allowance sanctioned during the year to Government employees and increase in development outlays in the post-budget period the deficit in the Central budget for 1975-76 is expected to be higher than envisaged.

According to the Survey the performance of Central Public Sector Undertakings in 1974-75 recorded further improvement. Their pre-tax net profit jumped to Rs 3120 million in 1974-75 from Rs 1480.7 million in 1973-74. Inventory levels were considerably reduced and the return on capital employed showed a marked rise from 5.2 per cent in 1973-74 to 7.8 per cent in 1974-75.

Reviewing the State Governments' finances, the Survey commends their resource mobilisation efforts in 1974-75 and in 1975-76 which yielded Rs 3580 million and Rs 1980 million respectively. However, it points out that in view of the mounting developmental and non-developmental expenditures of the States, it would be necessary for them to exercise greater financial discipline and intensify resource

mobilisation, particularly through taxation of the prosperous farm sector. While reviewing the State Governments' commercial undertakings performance the Survey notes with concern the continuing losses on irrigation works and the inadequate returns from investments in electricity undertakings. In this context, it stresses the need for suitable revision in rates and tariffs in these fields so as to make these undertakings financially viable and also earn adequate surplus for fresh investments in these sectors.

There has been a selective liberalisation of credit within the overall frame work of monetary discipline. An interest ceiling of 15 per cent has been prescribed for loans longer than three years. Margin requirements have also been relaxed.

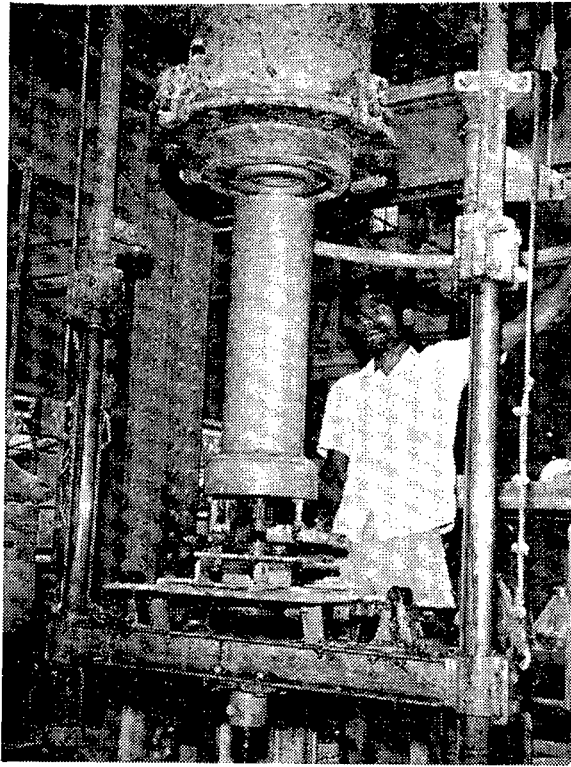
On monetary and credit trends the survey observed that monetary resources i.e., money supply plus time deposits, have also grown by 11.0 per cent upto February 6, 1976, when compared with 8.8 per cent in the corresponding period of 1974-75. The Survey states that on account of improved prospects on the production front, the expected increase in money supply is not likely to upset price stability. Nevertheless, it emphasises the need to finance the additional investments with minimum recourse to deficit financing.

Foreign Trade and Balance of Payments

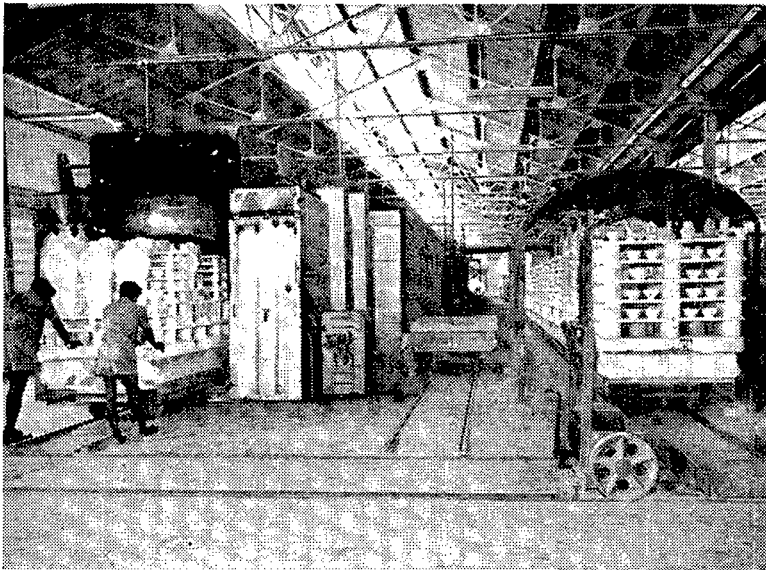
Reviewing the balance of payments during the year, the Survey refers to the deterioration in India's trade balance which brought borrowings from IMF to Rs 4847 million. During the first nine months of 1975-76 our exports have increased by 14.6 per cent to Rs 26,900 million. But imports rose ever faster by 23.1 per cent to Rs 38,030 million. The trade gap thus widened from Rs 7,430 million to Rs 11,138 million.

The Survey refers to the various efforts made during 1975-76 to promote exports through increasing the competitiveness of Indian goods and services and by streamlining the procedures for payments of duty drawback and incentives. The Survey states that renewed emphasis is being placed on expanding exports of growth items like engineering goods, chemicals and allied products as well as finding potential export items from the kitty of traditional and non-traditional items produced in the country. According to the Survey, as a result of these efforts the export volume this year is expected to grow by 7-8 per cent.

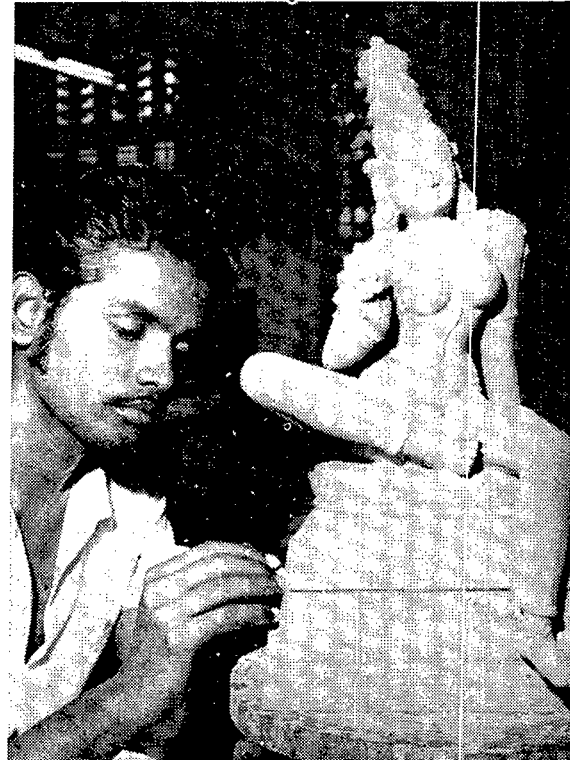
The Survey observes that the determined action taken against smugglers and other anti-social elements has had a favourable impact on India's balance of payments on invisible account. The Survey, makes a reference to the change instituted in the country's exchange rate system since September 1975, whereby the exchange value of the rupee is changed periodically with reference to a suitable weighted average of the exchange rate movements of the currencies of India's major trading partners. Among the measures taken to strengthen our balance of payments, the Survey notes the scheme introduced since November, 1975 to encourage Indians and aliens of Indian origin abroad to maintain deposit accounts in certain foreign currencies and to claim interest and repayment in the same currencies. The Survey's forecast is that the aid in pipeline as also actual disbursements in 1975-76 might be higher than last year and that the country's foreign reserve position is not unlikely to experience any serious strain during the current year. □



Left : Extruding pipes at the rate of four a minute, *Below :* A plate being cut on a jigger.



Above : A view of the tunnel kiln.
Right : Finishing a statue at the art pottery unit.



Tamilnadu Ceramics

K. R. NAIR

TWO noted landmarks distinguish Vriddhachalam town in Tamilnadu. They are the centuries-old Vriddhagirisswarar Temple and the sixty-acre complex of the Tamil Nadu Ceramics Limited (TACEL).

The Temple encompasses within its five *prakaras* some of the finest masterpieces of Chola art, architecture and sculpture. The skill that has gone into the design and decoration of the products of TACEL'S art pottery created the rock-cut figures adorning the Vriddhagirisswarar temple walls. Displayed at exhibitions held in various parts of the country during the past decade, they have elicited rare reviews from leading newspapers which congratulated the State Government for the steps it had taken to resuscitate the ancient pottery industry by integrating it with modern technology.

Ceramic industry in Vriddhachalam had a humble beginning when Government set up a factory there in 1959 with the modest idea of turning out one ton of sanitaryware per day. In 1964 another commercial unit was started for the manufacture of salt glazed stoneware pipes.

Two art pottery units one at Vriddhachalam and another at Perambur, a Training School which offers a four year diploma course in ceramics, a functional industrial estate in ceramics, with a common facility service centre attached, all at Vriddhachalam, and a mechanised brick plant at Tirumazhisai, near Madras, were set up in subsequent years.

As these functioned variously under the Department of Industries and the State-owned Tamilnadu Small Industries Corporation, Government felt the need for co-ordinating all activities in the field of ceramics in the State as a whole under the body. The Tamilnadu Ceramics Limited was set up for the purpose a little over a year ago with a capital of Rs one crore.

Achievements

Within a year of its inception TACEL'S turnover has exceeded one crore rupees, of which the ceramic factory and the stone pipes factory accounted for Rs 40 lakh and Rs 30 lakh respectively. The former, which is the most modern of its kind

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in the country, turns out besides sanitaryware many high-fired industrial ceramic products such as decorated porcelain crockery and low tension insulators. The products are as good as imported items, if not better.

It has been brought to the notice of TACEL authorities that some unscrupulous retailers of their crockery items have been selling them at sometimes even thrice their purchase prices and even palming them off as imported.

The quality of TACEL'S stoneware pipes is quite high, inasmuch as the factory is the only one in Tamilnadu permitted to affix 'ISI' markings on them.

Brick Plant

But it is the work of the two art pottery units which has brought fame to TACEL. Gifted students of art passing out from the College of Arts and Crafts, Madras, who have been engaged by the units have during the past few years developed 1000 designs for their art and utility ceramics. The designs include true reproductions of sculptures of statues from famous temples in South India, replicas in porcelain of traditional terracotta of Tamilnadu villages, attractive wall plaques and utility items like tea sets, beer mugs, flower vases, bowls and table lamps. The designs represent, besides traditional folk art, representational, geometric and even abstract idioms. Glazes and colours are rich and in all intensities, ranging from the fierce and flamboyant to the mild and mellow.

An exhibition was held for the display of the products of the units, the various items have enjoyed ready sale from both indigenous and foreign buyers. Demand for them is on the increase and TACEL proposes to raise the turnover target from the present Rs 6 lakh to Rs 8 lakh in the current year.

The mechanised brick plant at Tirumazhisai, set up in 1968 with Yugoslavian collaboration at a cost of Rs. 75 lakh, is currently working only at fifty per cent capacity. This is a capital-intensive and highly mechanised unit and like similar other plants in the country is unable to withstand competition from less sophisticated plants engaged in brick manufacture. It has since diversified its production and now turns out

hollow bricks, ceiling blocks, partition blocks and other sophisticated structural burnt clay products. Facing bricks, tiles, glazed bricks etc. are also being developed in the unit. Supplies are made by the factory to the Kalpakkam Atomic Power Project and the Space Research Centre at Sriharikota.

There are 29 units in the functional industrial estate run by TACEL at Vriddhachalam, mostly rented out to engineers, technocrats and other educated young entrepreneurs. TACEL proposes to construct additional sheds to meet increasing demand for them.

The common facility service centre has proved greatly helpful to the unit holders who would otherwise have had to invest large sums for the purchase of processed body materials glaze, colours etc, as well as on kilns for firing their wares. TACEL has already got a modern tunnel kiln in its own premises which develops the required temperature of 1300 degrees C, and which is being made use of by the unit holders in the estate. TACEL is shortly installing another modern oil fired continuous process tunnel kiln exclusively for the use of unit holders. The kiln is being imported from West Germany at a cost of Rs 26 lakh.

The main raw materials used by TACEL for its products are China clay, quartz, felspar, ball clay, gypsum and calcite. Quartz and felspar are obtained from Tiruchirappally and Salem Districts. China clay is purchased partly from Neyveli, but the bulk supply is from Kundara in Kerala. Gypsum is obtained from Tiruchirappally and Tuticorin.

One Thousand Jobs

Shri P.S. Menon, Managing Director of TACEL, says that by combining manufacture, training facilities, functional industrial estate, and common facility service centre and by offering technical advice and testing facilities at its well equipped laboratory at Vriddhachalam, TACEL was the only fully integrated establishment in India devoted to the ceramic industry. The company was presently providing employment to more than 1,000 workers.

To those interested in ceramic art and desirous of starting studio pottery units, TACEL offered not only service facilities but also training facilities at its two art pottery units.

TACEL propose to start at Vriddhachalam a service centre to cater exclusively to entrepreneurs engaged in the manufacture of sophisticated electronic ceramics. □

Highlights of the Union Budget, 1976-77

PRESENTING the Budget of the Central Government for the financial year 1 April 1976 to 31 March 1977 in the Lok Sabha on 15 March 1976, Shri C. Subramaniam, the Minister of Finance, said that the outlook has changed in many ways this year, thanks to resolute and dynamic leadership. Last year, the emphasis was on stabilisation and consolidation. The economy was just then recovering from a severe bout of inflation; and the agricultural situation was none too secure.

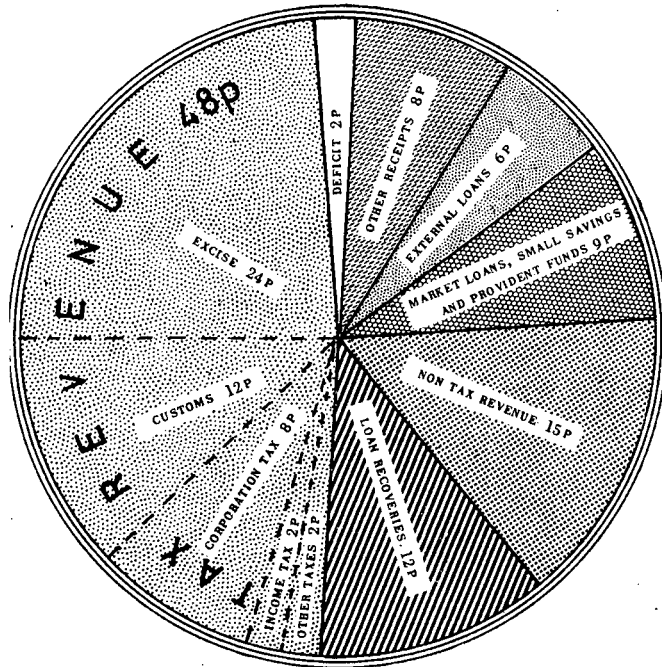
Later, the New Economic Programme generated an unprecedented sense of discipline and dedication in every facet of our economic life. Taking advantage of the improved situation, additional investments in important sectors were authorised during the latter half of 1975-76 and the country is now poised for a major advance in its path towards progress. The Finance Minister said that he was seizing this opportunity to step up the tempo of development further and to impart an added dynamism to the economy.

“The Plan outlay of Rs. 7,852 crore for 1976-77 represents an increase of 31.6 per cent over the allocation for 1975-76. This marks the highest step-up in development outlays in any one year since the beginning of the era of planning in our country.”

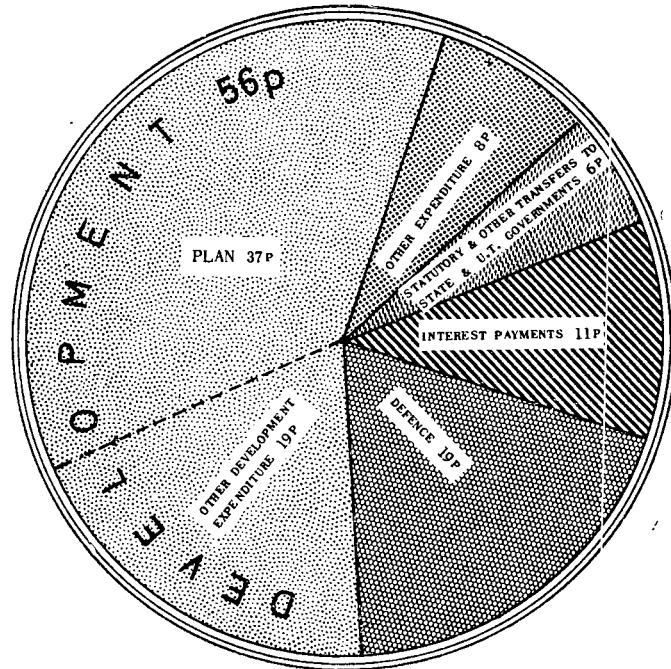
The main thrust in this budget, the Finance Minister said, is towards accelerated growth. But considerations of stability will continue to be important. “The world around us is still subject to considerable buffeting, from price inflation in some areas

BUDGET 1976-77

THE RUPEE COMES FROM



THE RUPEE GOES TO



	Rs. crores		Rs. crores
Excise	3130	Loan repayments	1497
Customs	1509	Non tax revenue	1962
Corporation Tax	1025	Market loans, Small savings & Provident funds	1116
Other Taxes	293	External loans	815
Tax Revenue	6265	Other receipts	995
		Deficit	320
		Total	6705

	Rs. crores		Rs. crores
Plan	7852	Defence	2544
Central Plan	3347	Interest payment	1352
State and U.T. Plans	1412	Statutory & Other Transfer—to State & U.T. Governments	734
Other Development Expenditure	1962	Other Expenditure	1027
Other Development Expenditure	2554		
Development	7313		

Tax revenue is exclusive of States' share of taxes and duties amounting to Rs. 1627 crores.

Transfers to States are exclusive of share of taxes and duties amounting to Rs. 1627 crores.

BUDGET AT A GLANCE

				(In crores of Rupees)			
	1975-76 Budget	1975-76 Revised	1976-77 Budget	1975-76 Budget	1975-76 Revised	1976-77 Budget	
Revenue Receipts				Revenue Disbursements			
Tax Revenue	6809	7470	7837	General Services	1789	2038	2224
Less—States' Share of Tax Revenue	1373	1599	1620 +7*	Defence Services	2036	2192	2286
				Social and Community Services	482	520	578
Net—Centre's Tax Revenue	5436	5871	6217 +48*	Economic Services	956	1005	1169
				Grants-in-aid to States etc.	1228	1362	1433
Non-Tax Revenue	1656	2152	1962	Total Revenue Disbursements	6491	7117	7690
Total—Centre's Revenue	7092	8023	8179 +48	Revenue Surplus	601	906	489 +48*
Capital Receipts				Capital Disbursements			
Loan Recoveries	1395	1451	1497	General Services	21	249	22
Market Loans (Net)	325	453	535	Defence Services	238	218	258
External Loans (Net)	613	682	815	Social and Community Services	61	79	93
Other Receipts	1096	1544	1576	Economic Services	1213	1710	1516
Total—Capital Receipts	3429	4130	4423	Loans and Advances	2744	3270	3391
Total Receipts	10521	12153	12602 +48*	Total—Capital Disbursements	4277	5526	5280
				Total Disbursements	10768	12643	12970
Overall Deficit	247	490	368 —48*				
			320				

*effect of Budget proposals.

and from recession in some others. Our economy, though more strongly placed than some others, is not entirely immune to these pressures. Its sound management will continue to call for the utmost vigilance from all of us."

India's economic performance during the current year has been a source of satisfaction, indeed pride, to all of us. There has been all-round improvement in production. Key sectors of the economy—in agriculture, in industry, in mining, power, transport and the like—have touched new peaks in performance. The country has had the unique distinction of sustaining a declining trend in prices since October 1974. The wholesale price index for the week ending 21 February, 1976 declined to 288, and is about 7.3 per cent lower than a year ago. This success in the struggle against inflation has helped to dispel the mood of pessimism and doubt which prevailed during 1973-74.

On present indications, the Finance Minister said, the national income in real terms will increase by about 5.5 per cent in 1975-76. This is attributable to the many determined efforts made by the Government, particularly since the launching in July 1975 of the New Economic Programme, to remove the various obstacles that came in the way of increased production in factories and farms. The prospects for agricultural development have improved greatly on account of the vigorous steps taken to increase the supply of quality seeds, water and fertiliser. The determined action taken to increase the production of such vital inputs as power, coal and steel augurs well for the further growth of industrial production. The country's external payments will also derive considerable benefit from measures adopted against smuggling, and pre-

venting leakage of foreign exchange through unauthorised channels. The fact that at the end of the current year food stocks with public sector agencies will be as high as about 11 million tonnes lends considerable strength to the economy. "Altogether, the many beneficial effects of strict enforcement of economic discipline can be easily perceived by any impartial observer of the Indian economic scene. The highly satisfactory performance of the economy during 1975-76 now enables us to take further measures to accelerate the tempo of social and economic development in the coming year."

Adequate investment in key sectors of the economy, Shri Subramanian said, constituted a basic condition for a sustained increase in the rate of economic growth. The Annual Plan outlay was stepped up by nearly 25 per cent in 1975-76. The Annual Plan for 1976-77 visualises an outlay of Rs. 7,852 crore, which represents an increase of 31.6 per cent over the Plan outlay for 1975-76.

The contemplated increase in the Plan outlay, the Finance Minister said, can be reconciled with continued stability of prices though this is achievable only on the basis of the strictest possible economic discipline. The struggle against inflation was successful only because the country willingly accepted the needed economic discipline. The planned increases in investment must, to the maximum extent possible, be financed through a genuine increase in savings. It also means that the community must voluntarily agree to sacrifice current consumption for the sake of accelerated growth in the future. In the current year, public sector enterprises have shown encouraging results with the growth rate of production reaching about 15 per

cent. "We must continuously improve upon this performance so that the country gets the maximum yield from the massive investment outlays of the past."

There is a very close relationship between modern scientific agriculture and industry. Progress in agriculture depends crucially on the supply of inputs such as quality seeds, water, power and fertilisers. Government have recently made a review of fertiliser prices, having regard to the importance of ensuring that the output-input ratio in agriculture does serve to stimulate further investment and thus larger production. It has been decided to reduce the price of urea from Rs. 1,850 to Rs. 1,750 per tonne. Government have also decided to effect a reduction in the prices of all indigenously produced phosphatic fertilisers and some select categories of imported phosphatic fertilisers by Rs. 1,250 per tonne of P_2O_5 . The price of muriate of potash will be reduced from Rs. 1,085 to Rs. 900 per tonne.

Production of coal is expected to reach the record level of 98 million tonnes in 1975-76. The generation of power will show an improvement of about 13 per cent. Yet, there is still a pressing need to push ahead at a faster pace. The establishment of super thermal power stations constitutes an essential plank of the programme to rid the country of continuing power shortages. The oil exploration programme has gained considerable momentum both on-shore and off-shore and, on present indications, the medium-term prospects appear highly favourable. In order to sustain growing production in the years to come, we must provide all these industries with adequate investible resources. This is precisely what is being done in the Budget 1976-77.

Government have adopted several mea-

Package of Incentives for Growth in All Sectors

asures to improve the profitability of some priority industries. Pricing policy has been made more flexible. In some cases prices have been decontrolled while in others a system of dual prices has been adopted with a view to providing a reasonable return to the investors consistent with protecting the users in priority sectors against excessive price increases. The Budget also seeks to tackle problems created by escalation in capital costs. Companies can now raise capital up to Rs 50 lakh in a twelve month period without specific consent from the controller of capital issues (This, however, does not apply to bonus issues or issues by MRTP Companies.) The Industrial Development Bank will be provided with enough resources to enable it, in collaboration with other term-lending institutions, to finance the requirements of modernisation, renovation and rehabilitation of important industries, like cotton, jute, and sugar. The contemplated increase in Plan outlays for 1976-77 will provide a major stimulus to the greater utilisation of existing industrial capacities.

An increase in export volume at an annual rate of over 8 per cent is an essential condition for sustained viability of the country's external payments. Government have recently further simplified procedures and liberalised facilities for exporters. The country's success in stabilising domestic price levels and the emergence of a buyer's market at home have also enhanced the competitiveness of our exports. The fact that a year in which the volume of world trade declined is likely to witness an increase of 7 to 8 per cent in the volume of our exports is an indication of the growing effectiveness of our export promotion efforts. The modernisation programme for jute, textiles and sugar is designed to strengthen further the country's export performance. The recent arrangement to delink the rupee from the pound and determine the rupee's exchange rate by reference to movements in a basket of currencies of India's major trading partners is designed to impart greater stability to the effective exchange rate and to our foreign trade in a world of floating currencies. With its well diversified industrial base, it is possible, as never before, for India to mount a successful export drive.

With a view to provide fresh impetus to technological change, the Plan allocation for the development of science and technology will be raised to Rs 156 crore in 1976-77 or an increase of no less than 34 per cent over the likely expenditure of Rs 116 crore in the current year. Shri Subramanian also announced Government's decision to levy an R&D cess to mobilise resources to finance such ventures. The Ministry of Industry and Civil Supplies would be introducing legislation in this regard in this session of Parliament.

In order to integrate accounts with administrative Ministries and Departments, it is proposed to separate accounts from audit and instal a Departmentalised Accounting System. The process of this separation is scheduled to be completed by 1 October 1976 for all Central Ministries. Under the new scheme, administrative Ministries will take full responsibility for arranging payments, and timely compilation and rendering of accounts. This reform will facilitate the timely receipt of information on the progress of expenditure, and enable a proper analysis of expenditure trends to be effected.

Fertilizers Cheaper Tax Relief for All New Cess for R&D

The machinery for tax collection, for checking tax evasion and for preventing leakage of foreign exchange to illegal channels has been streamlined. The improved collection of income tax, despite a reduction in rates, the outstanding success of the voluntary disclosure scheme, and the sizeable increase in earnings of foreign exchange on invisible account due to effective action against smuggling, are an indication of the

success of measures to strengthen the tax collection machinery.

Prevention of such evils as tax evasion and black money cannot be achieved solely through a tightening of administrative mechanisms, the Finance Minister said. It is equally essential to ensure that our economic policies, including our fiscal policies, minimise the incentives for tax evasion and for generation of black money. As part of this drive, Government have sought to streamline and simplify controls with a view to removing those which have become obsolete or lost relevance, without in any way encouraging greater concentration of economic power. The recent attempts at simplification of procedures and liberalisation of facilities for inward flow of remittances from non-resident Indians abroad are directed to the same objective.

REVISED ESTIMATES FOR 1975-76

THE original Budget for 1975-76 envisaged a deficit of Rs 247 crore. However, due to certain unavoidable increases in expenditure, the current year is now expected to end with a deficit of a higher order. A large part of the additional expenditure involved represents deliberate action on the part of Government designed to accelerate the pace of economic growth. The additional outlays were: Rs 71 crore more for export promotion (Rs 88 crore originally); Rs 210 crore for public sector (Rs 170 crore originally); Rs 130 crore for the Food Corporation; Rs 173 crore more as fertiliser subsidy (Rs 140 crore originally) and Rs 136 crore for DA for Defence Personnel.

In spite of the burden cast on the Budget by these commitments, we did not allow our developmental efforts to suffer. Investments in the crucial sectors of the Plan, especially steel, shipping and transport, as also mines, fertilisers, coal and power, were stepped up beyond the level provided in the Budget for 1975-76. The outlay on health and family planning has also become significantly higher. Additional funds have been provided to the Railways to enable them to meet the shortfall in their resources for the Plan which has been stepped up. An extra provision of Rs 53 crore was made for purchase of rolling stock by the Railways, which was also a means of providing stimulus to the engineering industry. In sum, the budgetary provision for various sectors of the Central Plan will be about Rs 270 crore more than was provided for in the original Budget. The sum of Rs 100 crore for special assistance to certain States with gaps in their resources to ensure adequate investment in important projects in the core sectors of

irrigation and power will go up by Rs 198 crore.

The budgetary deficit, taking into account all the inescapable additional commitments, would have been much higher but for a significant increase in resource mobilisation. A scheme of voluntary disclosure of income and wealth was announced for a limited period. Disclosures, and consequently tax collections, under this scheme have surpassed original expectations. The Exchequer has also benefited by way of large collection of taxes as a result both of improved tax collections and greater buoyancy of the economy. All these factors will result in an improvement of Rs 660 crore in tax revenues as compared to the Budget Estimates inclusive of the State's Share. The benefit due to larger collection of income tax will, however, accrue mainly to the State Governments, and their share of taxes will go up by nearly Rs 226 crore. The receipts from market loans, which now include investment of a part of the voluntarily disclosed income and wealth in specified securities, will be higher than Budget Estimates by Rs 168 crore.

Receipts from external assistance are expected to exceed the Budget Estimates by Rs 554 crore; this figure includes Rs 204 crore of assistance received during the current year from Iran for the Kudremukh Project and for economic development. In spite of improvements in receipt mentioned above, the current year is expected to end with a budgetary deficit of Rs 490 crore. The Budgetary deficit of Rs 490 crore could have been Rs 100 crore lower had we taken advantage of the special borrowing to that extent from the Reserve Bank of India envisaged in the original Budget.

BUDGET ESTIMATES FOR 1976-77

THE most important feature of the Budget for 1976-77 is a further significant step up in investment so that the country may move forward rapidly towards the realisation of the objective of accelerated growth with social justice.

Gross tax revenues at the existing rates of taxation are expected to amount to Rs 7,837 crore, showing an increase of Rs 367 crore as compared to the Revised Estimates for 1975-76. Of the additional accruals of Rs 367 crore, the share of the Centre would be Rs 346 crore. Receipts from Customs are

likely to go up by Rs 113 crore as imports next year are expected to be larger in view of the step-up in Plan investments, and the need for larger maintenance imports to sustain higher production levels. Union Excise duties are expected to yield Rs 261 crore more than in the current year. Income tax receipts will be less by Rs 103 crore, mainly because the bulk of the receipts under the voluntary disclosure scheme will have been realised in the current year.

Market loans are expected to yield Rs 535 crore as compared to Rs 453 in the current

Rs 7,852 Crore for Annual Plan : 31. 6% Highest Ever Step-up

year. This excludes investments under the voluntary disclosure scheme. Small savings collections are also expected to yield Rs 40 crore more in the next year.

Receipts from external assistance are estimated at Rs 1,341 crore which include assistance both in the pipeline and disbursement against new commitments.

On the expenditure side, the provision for Defence expenditure is Rs 2,544 crore against Rs 2,410 crore in Revised Estimates for 1975-76, which is a small increase.

The provision for food subsidy will be Rs 300 crore as against Rs 250 crore in the current year. From 1 March 1976, fertiliser transactions have been put on a different footing. The Food Corporation of India will pay the Government for the imported fertiliser and arrange for its distribution.

Strictest Discipline Continued Stability Accelerated Growth

Other non-Plan expenditures are being restricted to the minimum so as to make available the maximum possible resources for the Plan.

Pensioners and family pensioners will receive an additional *ad hoc* relief to the extent of 10 per cent of the pension, subject to a minimum of Rs 10 and a maximum of Rs 50. These benefits will take effect from 1st October, 1975. A provision of Rs 37 crore is being made in the next year's Budget for this purpose.

PLAN OUTLAY

THE allocations from the Central Budget for the Central, State and Union territories Plans will be Rs 4,759 crore. This includes Rs 1,412 crore for Central assistance for State Plan and provisions for Union territories Plan, the sub-Plan of the Hills and Tribal Areas, the requirements of North Eastern Council, and assistance for power schemes channelled through the Rural Electrification Corporation. The allocations also include Rs 294 crore of special advance Plan assistance without which some States would be without adequate resources for the required level of investment in important projects in the core sectors of irrigation and power. The budgetary provision for the Central Plan will be Rs 3,347 crore. The total Central Plan outlay in 1976-77, including internal and other resources of public sector undertakings, will be Rs 4,090 crore, as against Rs 3,154 crore in 1975-76. The State and Union territories Plans will be of the order of Rs 3,762 crore, as compared to Rs 2,812 crore in 1975-76. The greatest stress has been laid on the completion of on-going projects in agriculture, irrigation, power, petroleum, coal, fertilisers, steel, transport and communications. We have had to be rather selective in proposing new starts, having regard to resources in sight.

The Budget provides Rs 323 crore for agriculture and allied programmes, which will be supplemented by outlays in the State and Union territories Plans to the extent of Rs 473 crore, of which about Rs 148 crore will be for minor irrigation schemes. The area covered by minor irrigation is expected to increase by one million hectares in 1976-77.

Provision in the Central Budget for irrigation and flood control will be Rs 20 crore including an outlay of Rs 12 crore for flood control schemes. The State and Union territories Plans will provide Rs 673 crores for major and medium irrigation and flood control. In pursuance of the 20-Point programme, it is proposed to bring an additional five million hectares under major and medium irrigation during the Plan period. As against this target, the investment proposed next year will create additional potential of the order of one million hectares.

A sum of Rs 129 crore has been provided for power development, including Rs 74 crore for Central thermal and hydel power schemes, and inter-State transmission lines, and Rs 55 crore for nuclear power projects.

There will also be a significant step-up in the outlay on power in State and Union territories Plans from Rs 983 crore in 1975-76 to Rs 1,290 crore in 1976-77. The target for additional power generation capacity next year will be of the order of 2500 mw, as against the achievement of about 1,800 mw in the current year.

The budgetary support for petroleum and petro-chemicals has been stepped up from Rs 170 crore in 1975-76 to Rs 274 crore in 1976-77, of which Rs 73 crore will go to the Oil and Natural Gas Commission to maintain the tempo of onshore exploration and for stepping up the pace of off-shore exploration. Indigenous production of crude oil is expected to increase to at least nine million tonnes in 1976-77 as against 8.2 million tonnes in the current year. The production from off-shore sources by the end of this period will be at a daily rate amounting to two million tonnes annually. An additional Rs 65 crore is being provided to the Indian Oil Corporation for the Koyali Refinery expansion, the Salaya Viramgam Koyali Pipeline, the Mathura Refinery and the Viramgam-Mathura Pipeline. The Indian Petro-Chemicals Corporation will be provided Rs 81 crore for the petro-chemical complex comprising the Naphtha Cracker and downstream units. The total Plan outlay in the Petroleum sector will be Rs 485 crore in 1976-77 as compared with Rs 368 crore in the current year.

Budgetary allocation for coal in 1976-77 will be Rs 277 crore as against Rs 229 crore in 1975-76. It is expected that the production of coal will go up from 98 million tonnes in 1975-76 to 108 million tonnes in 1976-77.

Budgetary provision for Fertilisers is being stepped up from Rs 290 crore in 1975-76 to Rs 434 crore in the next year. This includes Rs 171 crore for the Bhatinda and Panipat projects and Rs 13 crore for the Phulpur fertiliser project which is in the cooperative sector. Adequate provision has been made to enable on-going projects to be completed according to schedule. In the current year the public sector fertiliser units have improved their production in nutrient terms by about 50 per cent as compared to last year and their production next year may well exceed 1.1 million tonnes.

The budgetary allocation for the steel sector is being doubled to Rs 402 crore in the next year. Of this, Rs 119 crore will be for the Bhilai Complex, etc., and Rs 150

crore for Bokaro. The Kudremukh Iron Ore Project, which is being financed wholly with Iranian assistance, has been provided Rs 100 crore for project construction and the related facilities required in the Mangalore port. This is a wholly export-oriented project for supplying iron ore concentrate for the Iranian steel industry.

The allocation for the transport and communications sector will be Rs 597 crore, of which Rs 271 crore will be for Railways which have their own Plan of Rs 411 crore. The Railways will also need loan support of Rs 160 crore to enable them to meet their current obligations to the General Revenues.

The budgetary allocation for industry includes Rs 36 crore for the Hindustan Paper Corporation for its Nowgong, Cachar, Nagaland and Kerala projects, and Rs 20 crore for Cement Corporation projects. Rs 10 crore are being provided for investment and transport subsidy for promotion of industries in backward areas.

The allocation for Khadi, for village industries, and for small scale industries is Rs 52 crore.

Outlays on social services also have been increased. Provisions for education, scientific research, health, family planning and integrated urban development are all higher than in the current year. In particular, the Central allocation for tribal sub-Plans has been doubled to Rs 40 crore, and that for Hill Areas development has been stepped up to Rs 36 crore from Rs 20 crore in 1975-76.

Government has decided that impounding of half of dearness allowance increases will continue for one year beyond July 1976 when the present statutory provisions in this regard expire. Deposits made during the extended period will be used for the Plan. The amounts deposited will earn interest at the same rate as before i.e., 12.5 per cent and will be repaid in five equal annual instalments, inclusive of interest, into the provident fund of the subscribers commencing from July 1978. Necessary legislation for this will be introduced in this session. Government will, however, abide by its assurance and repay the instalments of the additional wages and dearness allowances already impounded and falling due in accordance with the existing scheme. The employees will, therefore, have larger disposable incomes to the tune of Rs 270 crore during 1976-77.

It has been decided to introduce yet another social security scheme which will provide insurance to workers without any payment on their part. The salient features of this scheme are that in the event of the demise of a worker while in service, his dependent would be entitled to an additional payment equivalent to the average balance in the provident fund of the worker during the preceding three years subject to a maximum of Rs 10,000. This scheme would apply to all subscribers who have maintained a minimum balance of Rs 1,000 during the preceding three years. It has been estimated that the average balance of a worker would be around Rs 3,500. This would be indicative of the level of relief that will be available. The burden of financing this scheme will be shared by Government with employers. Necessary legislation will be introduced by the Labour Ministry.

Taking into account the likely magnitude of expenditure and resources insight, the Central Budget for 1976-77 shows a deficit of Rs 368 crore at existing levels of taxation.

Critics Praise FM Or

Not a Kill-Joy Document

PREM BHATIA

VETERAN JOURNALIST

SOMETHING more than the nation's economic health is reflected in the annual Budget. Tables of statistics, estimates of revenue and expenditure and taxes tell only a part of the story. The Budget also gives a fairly reliable indication of the current political picture as viewed by the Government of the day. Uncertainty and fear are as easily detected in the Finance Minister's hour-long speech as self-assurance and confidence.

Finance Ministers cannot afford to be exuberant. Allowances have to be made for the imponderables even when every prospect pleases. The confident and cheerful notes in Mr Subramaniam's Budget speech were, however, unmistakable. His perorative remark that "the economy is poised for a surge forward" seemed to sum up the mood of the makers of our economic policies.

There could be no surer sign of confidence than the decision to step up the Plan outlay for next year by 31.6 per cent compared to the Budget estimates of last year and simultaneously to give to the tax payer concessions over an extensive field ranging from individual incomes to excise duties. The accompanying assurance that inflation will remain checked was another tangible indicator of the Government's current confidence.

Some commentators have described the Budget as unexciting. So it was, in a manner of speaking. In the first place, the new "surge forward" was more or less foreseen in certain advance statements about the economic situation. Secondly, the old agitational reactions to any moves sponsored by the Government were absent. Thirdly, the Budget promised a continuance of the existing price stability. A steady, predictable style of life is always unexciting.

This must have been about the twentieth occasion for me to listen to a Budget speech in Parliament.

Never before has such a speech appeared to me to have carried greater credibility for its immediate audience. The reason was not only the impressive array of figures and statistics but also the Government's resolve in the implementation of declared intentions. This is usually easy to tell from the absence of too many reservations and qualifying clauses.

Consideration, compassion

My own layman's reaction to the Budget is that, for the first time in many, many years, it is not a kill-joy document. Without sacrificing

the country's long-term economic interests, Mr Subramaniam has shown compassion for the less privileged sections and consideration for the well-to-do.

If my own income tax rates have been slightly lowered, the less fortunate of my compatriots have gained in other ways. Those at the top of the economic scale need not now think that their hard work and ingenuity will remain unrewarded. Many felt in the past that these qualities could become a penal liability.

Very few in our country can afford a TV set, a refrigerator or a fan, but there are many who would like to acquire one or all these three aids to comfortable living. A constructive economic policy shows to the citizen the way to fulfil expectations. Lower excise duties will now place a few luxuries within closer reach of thousands of people in India. □

A Nutritive Budget

PROF. JITENDRA DHOLAKIA

SCHOOL OF SOCIAL SCIENCES, GUJARAT UNIVERSITY, AHMEDABAD

THIS is a nutritive budget which will revive sagging demand and shrinking investment in the economy. The wide ranging concessions announced in respect of income tax and wealth tax will put more disposable income in the hands of those who make saving and investment decisions. If savings and investments are channelised into the priority industries then the ratio of productive capital formation would increase substantially. But this is a big "if". Supposing the concessions and incentives offered by the budget proposals are frittered away in ostentatious consumption, then the results would be disastrous misallocation of resources in an economy endowed with none too plentiful resources. But in the present salubrious climate for growth, let us hope that the individual savers and the corporate sector will respond favourably to the incentives and will contribute their mite to the national economic development.

There is an unmistakable shift in the budget from the status to a more

dynamic approach to the annual plan outlays. Science and technology, integrated rural development and the essential ingredients of public sector capital formation have been rightly regarded as the major growth-inducing elements in our economy. Besides, a serious effort is seen in the budget to overcome the counter-productive, recessionary trends in consumer durable goods industries.

Despite the stimulus to investment and production that is envisaged in the budget proposals, the uncovered deficit in the budget is still very big. From now on, the monetary and credit policies will have to be more stringent to ensure that the relative price stability is not sacrificed at the altar of economic growth. The monsoon is an uncontrollable variable in our price system and one should not take any chance with the wayward behaviour of agricultural output and prices. Continuous vigilance and sound production management for price stability will ensure greater growth with greater stability. □

Growth Bias Of Budget

Exporters Need Exemptions

K. P. P. NAMBIAR

CHAIRMAN KERALA ELECTRONICS CORPORATION

I WOULD LIKE to comment only on those points which relate to the electronics industry. Firstly the concession given on excise duty on television will not materially improve the position of the television industry in India, presently in the doldrums. The ad valorem duty on television sets costing less than Rs 1800 per set has been reduced to 5 per cent. However, there are hardly any sets in India available at a cost of Rs 1800. The material cost of a television receiver itself with a 20" screen at the current rate of component prices is estimated at Rs 1850 so that it is not possible to manufacture and sell television sets at the price limit which will qualify for the excise reduction unless adequate steps are taken to reduce the cost of materials and components mainly by reduction of customs duty on imported strategic raw materials and component parts.

A substantial reduction in customs duty on imported raw materials and components required for the electronics industry has not been effected from the data available. Instead, the duty on electronic computers and computer sub-assemblies has been reduced from 60 to 40 per cent and this is bound to adversely affect the indigenous development of the computer industry and result in additional outflow of foreign exchange through increased imports of foreign computers.

The encouragement proposed to be given for starting new industries and for expansion of existing industries through investment allowance of 25 per cent has not been made applicable to a vital industry like electronics which has the largest employment potential in the country.

I hope these suggestions will be given due consideration when finalising the budget. I make an earnest appeal to the Finance Minister to enhance the limit of Rs 1800 to Rs 2500 for the unit price of television

receivers for eligibility of concessional excise duty and to include the electronics industry in the list of industries eligible for the investment allowance of 25 per cent. Drastic reduction of customs duty on imported raw materials is called for even at the cost of increase in customs duty on finished components and equipment including computers in order to encourage labour intensive manufac-

turing activities in India. For all projects involving 100 per cent export the customs duty on imported capital equipment should be waived in order to establish such units in different parts of the country and make them viable and the price of finished products competitive internationally.

The present system of having one or two export zones with these facilities adjacent to large cities will only increase the concentration of population and industry around those cities whereas the waiving of customs duty on capital equipment for industry established for 100 per cent export will ensure their dispersal. □

Production-Oriented Budget

DR. SAMUEL PAUL

DIRECTOR INDIAN INSTITUTE OF MANAGEMENT, AHMEDABAD

THE budget is undoubtedly the most "Production and Investment Oriented" budget in recent years. Many private citizens who come within the purview of income tax and wealth tax will be happy at the significant reductions in the tax rates affecting them. Housewives will welcome the cuts in excise duties which hopefully will be passed on in lower prices for a variety of mass consumption goods including some durable goods.

While the private point of view is no doubt important, it is perhaps more relevant to examine the implications of the budget from a social or public point of view. The Central Budget's socio-economic impact has both a short term as well as long term dimension to it, let us first turn to its immediate or short term implications.

First of all, the reductions and incentives proposed in respect of direct and indirect taxation should have a salutary effect on the production, capacity, utilisation and employment in the organised sector. Increased disposable income, reduced excises and prices (if brought down) and incentives for increasing output should help many industries tide over the recessionary trends facing

them. Secondly, in spite of the expected deficit of Rs 3200 million the price situation may be expected to remain satisfactory given the comfortable situation on the food front.

Turning to the longer term impact of the budget, the Plan Outlay which is up by over 31 per cent over the previous year will give a boost to the sagging levels of public and private investment. Secondly, the directions of public investment unfolded in the budget are most appropriate. The investment allowance will similarly encourage the expansion of priority industries and small scale industries. One hopes that these steps will help to raise the levels of saving and investment in the economy.

In his concern for stepping up output and investment the Finance Minister may have overlooked certain important areas where action is needed. Broadening the tax base by bringing in agriculture still remains a hope. Though changes in indirect taxation are expected to benefit the lower income groups more, one wonders whether the rich have got away with too much. Finally, who will monitor and ensure that prices of consumer goods are in fact brought down? □

Emphasizes Demand Rather Than Need

Dr. M.A. OOMEN

READER, DEPARTMENT OF ECONOMICS, KERALA UNIVERSITY, TRIVANDRUM

A DEPARTURE from many in the past, the present Budget abounds in tax concessions. The new imposts do not sit heavily on the poor. A social security scheme is contemplated for the industrial workers and the need for an integrated rural development strategy, is reiterated. A scheme of investment has been introduced to help the existing as well as new industrial units alongwith the raising of the exemption limit for additional capital issues and various fiscal incentives for increased plough-back of profit. The reduction of fertilizer prices may help agricultural production. One need not even be unduly pessimistic about the uncovered budgetary deficit in view of the high tax buoyancy experienced in the past, high demand elasticity of the goods granted excise concessions,

and the expected high growth rates in production and decline in prices.

However, it may be noted that the income tax and wealth tax concessions as well as many of the excise concessions help almost exclusively the richer sections of the society. It is not also clear how

the stimulation of the private sector is sought to be related to the realisation of the long-term strategy of provision of goods for the consumption of the masses. On the whole the present budget looks more new in its approach emphasising demand rather than social need.

Just And Fair Budget

V. PANDIT

PRESIDENT, TRIVANDRUM CHAMBER COMMERCE

It is a just and fair budget packed with investment incentives. It will be welcomed by the rich and the less fortunate brethren as the budget proposals are sure to benefit both. Tax relief and concessions offered are in tune with the declared policy of the Government to ensure economic

prosperity, social justice and stability. Realistic approach to the economic problems confronting the country at the moment has been the keynote in the preparation of the new budget. It is gladdening that the hopes and expectations have come true at least to a certain extent.

Larger Outlay Needs Stricter Controls

S.L.N. SIMHA

DIRECTOR, INSTITUTE OF FINANCIAL MANAGEMENT AND RESEARCH, MADRAS

IN THE LAST THIRTY years, I do not recall any other pre-budget period when the taxpayers were more relaxed and the Finance Minister was under strong pressure from *all* sides to give tax concessions than in the last few months. The economic scene during 1975-76 was satisfactory in many respects, especially in regard to price situation, thanks both to the anti-inflationary action initiated in July 1974 and the excellent monsoon we have had. In fact, as regards prices of primary products, there has been some concern about excessive decline, while in respect of a number of manufactured articles, demand has slackened. While the situation could not be described exactly as one of general recession, there were some signs of it. Apart from measures to stimulate demand, there was a clear case for stepping up the rate of investment in the public and private sectors and providing a general stimulus to personal and corporate saving.

It must be said that the Finance Minister has done his job admirably. He has followed the golden mean, between being impervious, on ideo-

logical grounds, to pleas for tax concessions and giving away a great deal, in response to strong pressures from very responsible quarters. Shri Subramaniam has also done this in a simple way, that is to say without appearing to be patronising.

The Finance Minister's proposals have covered nearly all taxes, direct and indirect, and all the sectors of the economy. One may complain about specific tax proposals as being rather liberal or not going far enough. But the budget proposals have to be taken in their totality. The Finance Minister is not merely an expert but one who has to take note of socio-political currents and cross currents. Judged in this manner, the Finance Minister deserves to be congratulated on his fine performance.

It will not be appropriate, in this short article, to take up each of the Finance Minister's proposals and comment on them. It would be useful to ask some questions and make some suggestions, all in the spirit of Shri Subramaniam's budget philosophy. The marked increase (32 per cent) in plan outlay in relation to the 1975-76 Budget *Estimates* is welcome, but what is the order of

increase as compared to the actuals for 1975-76? One must note that physically it is not easy to increase outlay by over 30 per cent in a year. There is no use in having a large outlay merely in financial terms. This calls for great care in the matter of expenditure, both to speed up desirable expenditure and curb non-essential spending. Even as the Finance Minister has done a good thing in deciding to set up a Committee to review indirect taxes, he will do well to appoint a Committee on Public Expenditure. The separation of audit from accounts is a good thing and now efforts must be concentrated on control of expenditure, Plan and non-Plan.

There are a number of proposals in the budget to give reliefs to individual and corporate assesseees from the impact of inflation. Some further concessions in this regard could be considered by the Finance Minister. The exemption limit for capital gains tax may be increased to Rs. 10,000 for individual assesseees. From the point of view of promoting mobility of funds, there is a strong case for removing the distinction between short-term and long-term capital gains and taxing the gains at a flat rate of say 25 per cent, above the exemption limit, without

any other concession in this behalf. There is also a case for raising the exemption limit of gift tax to Rs. 10,000, lowering the rates of tax on the various slabs and restricting the maximum rate to 60 per cent. The exemption limit for estate duty should also be raised from Rs. 50,000 to Rs. 1 lakh.

The Finance Minister could also make some constructive moves in the field of management of public debt, which seems to have been neglected, by and large. There is a case for raising the interest rates on government bonds. Special issues, carrying rates of interest like 9-10 per cent, with a maturity of 10 years, ineligible for purchase by banks and in denominations of Rs. 5,000 and above, ought to be issued, to raise the maximum of marketable funds from non-banking resources. In this connection, it is a matter for some study and clarification, whether, at least partially, the proposed 'special' borrowing of Rs. 480 crores from the Reserve Bank against blocked deposits, will not conflict with the anti-inflationary objective of the blocking of additional wages, dearness allowance and higher incomes.

We should also welcome the Finance Minister's caution against being complacent in the matter of control of inflation. The recent steps to bring down the lending rates of commercial and development banks has to be welcomed. There is also a case for a modest reduction of bank rate from nine to eight per cent, as a further psychological boost to the investment psychology.

The special attention which the Finance Minister has given for integrated rural development should be welcomed, though the temptation to establish too many institutional agencies for rural development must be resisted.

Altogether, one should hope for a fairly high rate of growth of real national income in the year 1976-77. Rough estimates indicate that in 1975-76 real national income rose by about 5.5 per cent. It should be possible to achieve this rate, if not a higher one, in 1976-77. But it must be recognised that this is a tremendous task and requires the utmost effort on the part of everyone in the country. Special efforts would have to be made to expand exports so that there may be sufficient resources for meeting the essential import requirements, without depending unduly on foreign aid, which in the nature of things is an uncertain element. The outlook in this regard is good.

Some M.P.'s Reactions

INDRAJIT GUPTA (C.P.I. Group)

CPI is unable to give unqualified support to the budget proposals. There are some good features: relief to pensioners, enhanced provision for science and technology and sports; priority for the core sector. But the budget reveals some dangerous trends like large concessions to big business and monopoly houses. The Finance Minister's expectation that they would respond to this generous treatment by paying their taxes honestly may be belied. Besides, affluent sections in the countryside have not been brought in the tax-net. The tax exemption limit should also have been raised to benefit the lower and middle classes. There is no justification for raising excise duty on drugs and reducing the wealth-tax liability.

N.K.P. SALVE (C)

It is an 'imaginative' budget. It is a reward to the nation for the work and dedication ever since the proclamation of emergency. The performance of the economy had been exceedingly good in the year.

ERASMO DE SEQUEIRA (B.L.D.)

In view of the expected good rabi crop, storage facilities should be increased and massive investments made in the agricultural sector. Goods like

television and refrigerator are not items for the common man. Therefore, the reduction in excise duty for these are not justified.

CHINTAMANI PANIGRAHI (C)

The budget truly reflects the political will under the dynamic leadership of the Prime Minister to take the country to socio-economic development. It has given weightage and priority to all core sectors.

A.K. GOPALAN (CPI-M)

Multi-national corporations are a drain on economy. While people under poverty-line have increased, monopoly houses and big business have grown enormously.

P.R. DAS MUNSHI (C)

The Finance Minister is to be congratulated on his efforts to contain inflationary trends.

P.G. MAVALANKAR (Ind.)

Gujarat should get justice under the proposed settlement of the oil royalty issue.

K. SURYANARAYANA (C)

Farmers get very poor returns from their land on their investment. Agricultural subsidies should be provided.

K. LAKKAPPA (C)

The budget reflects the economic philosophy outlined by the Prime Minister. However, more should be done to ameliorate the conditions of farmers, particularly, by way of bank credits.

Momentum To Growth

POPATLAL C. DANI

PRESIDENT, GUJARAT CHAMBER OF COMMERCE INDUSTRY, AHMEDABAD

THE investment based growth strategy has been fully reflected in the year's budget. It is indeed significant that for the first time in recent years Finance Minister was in a position to give up the beaten track of more taxation for mobilisation of resources and blaze a new trail of raising them through self-generating economy. Reduction in maximum marginal rate of income-tax as well as raising limit of the highest slab, reduction in the rates in the inter-mediary slab and reduced rates of wealth-tax are positive steps to encourage savings in the economy. The investment allowance on 25 per cent replaces the development rebate. This not only would result in ploughback of profit but also allow industries to utilise this gain after a period of 10 years. Though, there may not be any immediate

major benefit as a result of conditional relief in payment of surcharge by companies, especially by way of retention within the corporate sector, each company that avails of this concession will have a bumper harvest five years later. In any case the decision to raise surtax exemption on chargeable profit from 10 per cent to 15 per cent will have the effect of increasing retention of profits in companies where profits are sizeable. The proposal to raise the exemption limit for additional capital issues (initial and rights) from Rs. 25 lakh to Rs. 50 lakh, will largely go to benefit the small and medium size companies hit by cost escalation. This should encourage small companies to go in for new capital issues in a bigger way. Besides, rationalisation of tax on foreign

companies and offer of new incentives for Indians living abroad and desirous of remitting capital back to the country, will it is hoped, stimulate inflow of capital.

A general reduction in the rates of excise duty on various items is indeed gratifying. A few concessions in excise duty in regard to some luxury items would it is hoped, go a long way in encouraging fuller utilisation of installed capacity in those sectors. However, in order to reduce the burden on the common-man the Finance Minister should have extended these concessions to certain essential goods of mass consumption like kerosene, match box, sugar etc. The reduction in excise duty on fertilizers, will help in augmenting agricultural production. Proposed reduction in excise duty to the extent of 25 per cent in case of certain selected commodi-

ties producing goods in excess of production in a selected base year would certainly help to augment production. A long awaited proposal for appointment of a committee to look into the indirect tax will it is believed help in rationalising the tax structure in this vital field which constitutes a major source of revenue for the Government.

Substantial stepping up of annual plan outlay by about 31.7 per cent to Rs. 78,520 million and more allocations of funds for agriculture, irrigation, power, fertilizers, steel etc. will not only accelerate the tempo of future development but also facilitate implementation of the Fifth Five Year Plan on more solid foundation. The thrust is naturally for investment and development growth with social justice which is bound to impart much needed momentum for economic growth.

Bigger Effort Needed

R. VENKATARAMAN

EDITOR, SWARAJYA

It is well-known that large investments without the backing of savings leads to inflation and the budget therefore, provides for adequate facilities for savings both in the household and in the public sector. The relief in direct taxation such as reduction in the marginal rate of incometax wisely combined with a larger compulsory deposit ensure that the tax relief is not wasted but channelled towards investment. The compulsory deposit of 10 per cent will be harder on the income slab between 15 and 20 thousand than on the 50 to 70 thousand bracket and may require a re-adjustment. The option given to companies to deposits in the Industrial Development Bank of India, the equivalent of a 5 per cent surcharge on income-tax, secures the benefit of tax relief without loss of resources to the country. Likewise, investment allowance of 25 per cent of the cost of acquisition of new machinery in selected industries which is a variation of the development rebate, eagerly sought by the industry will be welcomed by the business community.

Other concessions to artists, playwrights, and to owner-occupier of own house and the reduction in the wealth tax together make an impressive list.

It is by the relief in the excise duty on a wide variety of consumer goods that the common man stands to benefit. Soaps, detergents, dry cells, table fans, aluminium products, plastic articles etc. will cost less than before. Excise relief on refrigerators, television sets, automobiles and certain accessories will help stimulate demand and consequently employment. The grant of a 10 per cent increase to pensioners subject to a minimum of Rs 10 and a maximum of Rs 50 and the scheme for grant to industrial workers who may unfortunately die in service are welfare schemes greatly appreciated by the less-privileged class.

The Finance Minister has truly earned the goodwill and affection of the masses by his thoughtful budget proposals. □

Demand Must Be Revived

PROF. GANGADHAR GADGIL

EXECUTIVE DIRECTOR, INDCON CONSULTANCY (P) LTD.

THOUGH THE BUDGET marks a welcome departure from some of the fiscal policies it will not help reviving demand in a number of industries. Only slashing of excise duties to the tune of 500 crores will prove a booster'.

On the whole, the budget is marked by realism and is development oriented.

The relief in personal taxation accompanied by a continuation of the compulsory deposit scheme would reduce tax evasion and increase savings.

The relief in corporate taxation along with the restoration of the development rebate will have a similar effect.

The relief in excise duties will stimulate the demand for products of certain industries.

The increase in development expenditure would relieve the country of critical shortages in the areas of power, oil, coal, transport, fertilizers and would generally stimulate growth.

The deficit is not large and the Compulsory Deposit Scheme as well as impounding of 50 per cent of additional dearness allowance would ensure that inflationary pressures are not released.

However, I am afraid that the Finance Minister has not realized the seriousness of the problem of demand recession in the country and has not taken adequate steps to deal with it.

What is necessary is an immediate

revival of demand in a number of industries. This could be done only through a reduction in prices brought about by a sharp reduction in the excise burden. I would advocate a sharp reduction in excise burden to the tune of Rs. 500 crores. I would further advocate that the 25 per cent concession of excise duties on increased production should be enhanced to 75 or 80 per cent concession. I would further advocate a 5 per cent reduction in corporate taxation which should be immediately available to industry for meeting its requirements of rehabilitation, modernization or even of working capital.

This would add to the deficit. This could be partly covered by a reduction in non-developmental expenditure of Rs. 150 crores and a reduction in developmental expenditure of Rs. 150 crores. A part of the balance would be met through reduction in development expenditure resulting from the reduction in excise burden. The rest of the deficit could be left uncovered without any damage to the economy.

A reduction in interest rates on short term bank loans by 2 to 3 per cent also seems to me to be necessary.

A modification of the budgetary strategy along these lines is obviously not likely at this stage. But sooner or later such stages will have to be taken in the interest of economic revival.

The Dangers of The Deficit

P. R. BRAHMANANDA

DEPARTMENT OF ECONOMICS, UNIVERSITY OF BOMBAY

IT may be interesting to compare the actual budget for 1976-77 with what would have been the optimum budget in the context of the economic situation currently obtaining and as it may turn out on a forecast based upon the immediate past experience. What does the immediate experience tell us? On the basis of the Revised figures for 1975-76, the actual gross expenditure of the Government on revenue account turns out to be about 10% higher than the Budget estimate, whereas the Revised gross revenue receipts

are higher by about 14% as compared to the Budget estimate. The total disbursements by the Central Government on the basis of the Revised figures for 1975-76 are higher than the Budget estimate by about Rs. 19000 million—an increase of the order of 18% over the Budget estimate. If the Revised total disbursements for 1975-76 are hypothesized to be of the same order as the Budget estimate and the receipts for the Revised are substituted for anticipated Budget receipts, we would have a hypothetical surplus of about

No Direct Concessions

K. KRISHNAMOORTHY

PRESIDENT OF THE MADRAS STOCK EXCHANGE

My immediate reaction to the Budget is that the reduction in the personal level of income-tax from 77% to 66% at the higher levels, the revision in the operative levels applicable to the maximum marginal rates of personal incometax from Rs 7000 to Rs 100,000 and the reduction in the rates for different slabs for individuals will certainly promote savings and investment. The lowering of the Wealth Tax rates should also encourage savings. The huge increase in the plan outlay contemplated would gradually contribute to improve market sentiments.

The restriction on company dividends looks like being allowed to lapse at the expiry of the prescribed period of two years. This is a great plus-factor stockmarketwise.

The Finance Minister has not given any specific concessions in the corporate taxes or reduced the burden of tax to important industries having a lean time presently such as cement, sugar, automotive and ancillary industries, which would have more than satisfied the expectations of market circles. A reasonable reduction in the price of petrol and a large abatement in excise duty on passenger and other cars would have gone a long way in boosting up automobile and ancillary industries.

It was anticipated that special concessions would be granted to these industries. While I concede that the Finance Minister has given

a very big concession in the matter of investment allowance for priority industries at 25% on the acquisition cost of new machinery and plant installed after 1st April, 1976, it would have been far better if direct concessions for these industries had also been given.

The Presidents of the Recognised Stock Exchanges in India had met the Union Finance Minister last year and had submitted to him a number of proposals for boosting investment in Stock Exchange securities and for promoting capital formation. I do agree that on account of the restructuring of the rates of personal taxation, savings might increase, but direct concessions for corporate investments would have had direct impact on investment activity in the Stock Exchanges. The health of the Stock Market is definitely to be nurtured and nourished if our plans and programmes for gigantic agricultural and industrial development are to be gainfully implemented. Apart from this, the Budget would seem to have taken care of a number of items on which excise duty concessions have been given to alleviate the sufferings of the common man. Let us hope the expected all-round growth in industry and agriculture is achieved, so that we may have bigger reliefs on a wider front in the 1977-78 Budget.

Rs. 15000 million. On the other hand, if we assume that the disbursements are on the basis of the Revised, and revenues are close to the Budget estimates, we would have had a hypothetical deficit of Rs. 17000 million. The actual deficit on the basis of the Revised for 1975-76 is estimated at Rs. 4900 million. Under Indian conditions, it would be fair to assume that actual disbursements each year would tend to be not merely higher than the Budget estimates, but also are somewhat independent of variations in the difference between budgeted receipts and actual receipts. That the gross revenue receipts of the Centre went up over the Budget estimate by nearly Rs. 13000 million draws attention to the extraordinary fact about the budgetary process in 1975-76 that *but for the additional windfall revenues* and revenue sources, we would have been confronted with a deficit of an unmanageable proportion with almost a catastrophic impact upon the money supply and the situation in regard to prices. Therefore, the VDS receipts, higher tax and non-tax revenues from other sources have helped to restrict the dimension of the growth of money supply that would have taken place in their absence. The additional revenue receipts have thus helped to keep the rate of growth in money supply lower at about 10% during the current year as compared to the higher, potential rate. *In fact, but for the windfall sources of revenue, the rate of growth in money supply would have been of the order of nearly 22% during the current year.* Just imagine what the consequences on the economy of this order of increase supply could have been! Not merely would the price level *not* have fallen, but there would have been a steep rise in the prices, despite the bumper harvest. The central factor which has *retained* the underlying inflationary upsurge is the almost parametric nature of the expenditure commitments of the government and their rate of growth. These commitments are rising so fast that they put to shame even Agastya's propensity to consume water!

Since additional revenues and additional sources of revenue during 1975-76 appeared to have no direct relationship with actual expenditure plans, we should be fortunate that we have been saved from a budgetary process which could not but have had disastrous consequence on the delicate working of our economy. Further, according to the Finance Ministry officials, by the end of July 1976, the immobilized portion of incre-

ments in D.A., compulsory deposits of additional wages and of portion of salaries would together have amounted to above Rs. 10000 million. Just note that had it not been for these measures we would have added nearly as much volume to the stock of high-powered money in the economy. The immobilization policy together with additional revenue mobilization have prevented the rate of expansion of money supply during 1975-76 from rising to a rate of 30%. The excellent harvest during 1975-76, the high level of food imports, and the immobilisation scheme have together kept the actual growth rate in money supply at about 10% during 1975-76 whereas the additional revenue sources have also helped to keep the growth rate of money supply from reaching galloping dimensions. We must note that the fire of inflation has been kept intrinsically raging by the fuel of rising public expenditures.

I hope at least some of the highest authorities ruling the destinies of our country are aware of the inherent inflation-prone fiscal and monetary process in India and of how but for the economists' consensus which helped to activate the Government in undertaking certain crucial anti-inflationary measures, the economic situation would not have been what it is today and would have turned out to be akin to what obtains in some of the Latin American countries with its enormous injustice to the poorest strata in the community. All cudos must be given to the authorities for keeping the rate of growth of money supply during the last two years at rates lower than during the immediate previous years and for responding to the various suggestions contained in the Economists' Memorandum. The high tempo of public expenditures has, however, continued unabated and we have only by a miracle averted huge budgetary deficits with their enormous impact upon money supply. It is in the realm of high scale and rising tempo of public expenditures that further action has to be undertaken in order to contain the inflationary demon at bay, during the next year. How one wishes that the authorities had accepted a national ceiling on the rate of growth of money supply at about 5 percent per annum! We have exceeded the norm during the current year, but we must take care to see that the process of actual inflation does not gain further strength.

I have elaborated on the above in order to draw attention to the dangers involved in the high extent of

overall Budgetary deficit that is envisaged for 1976-77. In obtaining an economist's measure of the deficit, we must sum up (a) the conventional measure of the deficit of Rs. 3200 million (b) Rs. 4900 million obtained from the Reserve Bank of India as a special loan out of the immobilized funds and (c) the borrowing from the banking system as part of the market loan programme, which should tend to be of the order of Rs. 2500-300 million. The total deficit contained in the Budget estimates—most of which would be reflected in the form of an addition to the stock of high-powered money—would be of the order of Rs. 1,0500-1,1000 million. Even assuming that short-term borrowing from abroad would provide a cushion of about Rs. 1000-1500 million, we would still be left with the total money supply upsurge potentially contained in a deficit of Rs. 1,000 million. The expansionary potential in regard to money supply would easily be about Rs. 1,8000-2,0000 million depending upon the actual money multiplier, the incremental value of which is currently close to 2. The overall rate of monetary expansion would turn out to be a minimum order of to say 15 to 18 per cent.

No doubt, 1975-76 has witnessed good agricultural harvests. The stock situation in respect of food-grains is comfortable, from a crisis angle. However, so long as the level of real output is intrinsically linked to the state of the weather, it would be hazardous to venture into an adventure of monetary expansion during 1976-77. The inflationary

potential of the budget for 1976-77 is not merely large but quite serious. May I, therefore, submit—in all humility—that the Government should divide the disbursements into two portions: (a) inescapable commitments and (b) optional and contingency portion. The decision regarding (b) should be taken only in the month of, say, December 1976, after the slack season of 1976, when we will be in a position to have a firm idea of the overall economic situation during 1976-77. I appeal to the Prime Minister—who should really get the major credit for initiating the anti-inflationary programme, very much against opposition in her own party—to see that the enormous gains that we have achieved in controlling inflation is a matter of pride to Indian economists, are not lost through the contemplated fiscal process for 1976-77. Under no condition, should she permit disbursements regarding (b) unless the economic situation, as reflected in the agricultural production trends and the experience of the slack of 1976 favourable in December 1976, and definitely turns out to be as in 1975-76. If the climatic situation proves to be adverse, and the slack witnesses a rise in prices, expenditures during the busy season as well should be limited to (a). She should ask the Finance Ministry not merely not to make a draft upon the immobilised funds with the RBI, but should also request the Planning Commission to hold its hands till the slack season is over and a firm judgement about harvests can be taken.

Calculated Risk

D. C. KOTHARI

INDUSTRIALIST

THE budget is growth-oriented and a dynamic one. With the reduction in the level of Income Tax and Wealth Tax, the generation of black money is likely to go down and consequently the internal and external value of the rupee will be better. There will be a greater propensity towards savings and investment. The 25% investment allowance is a good substitute for development rebate and should encourage capital formation. If only corporate taxation had also been reduced to 50%, it would have been a very good gesture but perhaps the Finance Minister could not do everything in one shot.

The increase in Plan expenditure

by 31% should create a demand for goods and will increase the money supply with the public. The Finance Minister in my opinion has rightly taken a calculated risk and rather than go on the old accepted notions of fiscal policy that all deficits should be covered, he has taken the bolder step of leaving an uncovered deficit in the hope that in the prevailing state of the economy there will be no danger of inflationary forces raising their heads. □

NOTE

Some Solicited opinions which came late could not be carried in this issue. They will appear in the next issue of Yojana.

—Editor

Rail Budget, 1975-'76

THE RAILWAY BUDGET for 1976-77 presented to the Parliament on 11 March, leaves the passenger fares untouched and also exempts articles of common consumption such as foodgrains, fertilisers, edible oils, oilseeds, salt etc. from the proposed supplementary freight charge. It, however, provides for a graded supplementary charge on freight to yield over 273 million rupees. This will convert the anticipated deficit of 783 million into a surplus of 89.8 million rupees. Freight traffic on wagonloads carried upto a distance of 500 km will be subject to a supplementary charge of 5 per cent and that carried beyond 500 km and all 'small' traffic will bear a 10 per cent charge.

Explaining the need for raising additional resources to bridge the budgetary gap, the Railway Minister, Kamalapati Tripathi said he wanted to make freight rates more cost-oriented for wagon-loads beyond 500 km and for all 'smalls' traffic. Beyond 500 km the telescopic structure rate still did not cover the transport cost in full.

The railway Minister said, within the framework of Government's stability programme, Railways could be allotted only a sum of Rs. 3928 million for their Works, Machinery and Rolling Stock programmes in 1976-77. The amount excludes Rs. 350 million for financing manufacture of rolling stock for export, Rs. 100 million for investment in State Road Transport Undertakings and Rs. 100 million for the Metropolitan Transport Projects. Although somewhat higher than the current year's allotment of Rs. 3610 million on comparable basis, the projected plan outlay for 1976-77 is not adequate to execute their development schemes.

The share of New Lines and Restoration of Dismantled Lines in the Annual Plan for 1976-77 is Rs. 175.02 million. Of this, Rs. 135.03 million have been earmarked for the 11 project-oriented lines and the remaining Rs. 39.9 million allotted for the 14 developmental lines, work on which is already in progress. In view of the constraint on resources, it has not been possible to include any other new lines in the budget.

To supplement our venture in consultancy and take advantage of world-wide opportunities for railway construction, the Railway Minister said, the Government are con-

STRIKES AND AGITATIONS CAUSED ACCIDENTS

The Railway Ministry attributes the increase in the number of rail accidents in 1974-75 to a series of wildcat strikes, staff agitations and general labour unrest during the year, which affected the maintenance of rolling stock, track and discipline.

According to a review of accidents on the Railways presented to Parliament by Railway Minister, Kamalapati Tripathi, there were as many as 10,386 accidents on the Railways during 1974-75 compared to 8,070 in 1973-74, although the train kilometre runs were more or less the same in both years.

A break-up of the accidents is: Collisions-766, derailments-689, train wrecks—seven, trains running into road traffic at level crossings—140 and fires—23. The failure of engines caused 6,757 accidents and that of couplings and draft gear 383. The failure of rolling stock caused 381 accidents, that of permanent way 435 and of overhead wires 162. In addition, there were 1,343 miscellaneous accidents during 1974-75.

The number of casualties was 2,429, including 98 killed. The cost of damage of rolling stock and engines was Rs. 460.8 million and to permanent way Rs. 8.08 million. Through traffic was interrupted for a total of 11,101 hours during the Year.

dering setting up a construction unit as an autonomous company under the aegis of the Railway Ministry. This company on formation, will bid for construction of railway projects, particularly in foreign countries.

The Gross Traffic Receipts at existing fares and freight rates, have been estimated at Rs. 18,684.07 million. Passenger earnings account for Rs. 3,180.01 million, other Coaching earnings Rs. 871.08 million, Goods earnings Rs. 12,402.03 million and Sundry earnings Rs. 430 million.

The estimate of Working Expenses for 1976-77 has been placed at Rs. 15,314.02 million. In addition to the continuing burden of staff emoluments, it provides for completion of implementation of the 10-hour work rule for loco running staff, giving effect to Miabhy Award, removal of anomalies in the recommendations of the Pay Commission and upgrading of certain non-gazetted posts to improve their career prospects.

The Railway Minister said, Railways had been training only about 6,000 apprentices in terms of the requirements of the Apprentices Act, 1961. In implementation of the new economic programme announced by the Prime Minister, the number was doubled within the short space of six weeks from the date of announcement of the programme. The trades have also been widened. Shop Councils have been formed in Production Units with management and labour representatives. Labour participation in management has thus been extended beyond the existing Staff Benefit Fund Committees, Housing Committees, Station Committees, etc.

A crash programme has been launched to make up the shortfall in the quotas of posts reserved for scheduled castes and scheduled tribes. Minority communities will also be ensured a fair deal.

Schemes for providing job opportunities to unemployed Civil Engineering Graduates are being revitalised by allowing them some concessions in tendering for railway works up to a specified ceiling and making it obligatory on the part of contractors to employ, on payment of a monthly stipend, a minimum number of such persons during the period of currency of the contract.

The relations between management and labour, after the unfortunate events of 1974, have stabilised on a happy note with better understanding of each other's problems and a common desire to resolve them through mutual consultation.

Shri Tripathi said that, as expected, 1975-76 has proved to be a year of stabilisation and steady growth. The Railways resolutely have exploited the opportunity presented by the upswing in the economy. Aided by the favourable working conditions following declaration of the Emergency, substantial improvement had been made in operating performance of the Railway. New heights had been attained in transporting freight traffic. On present reckoning, Shri Tripathi said, the Budget anticipation of 190 million tonnes of originating revenue earning freight traffic, would be fully realised, if not exceeded. The total originating traffic, inclusive of departmental traffic, was likely to amount to about 214 million tonnes, 4 million tonnes more than the Budget forecast. Each of these figures would be an all-time high in the history of Railways and would establish a new record.

The Minister said that the passenger traffic was also ahead of the Budget forecast. Besides, window sales had increased due to widespread and intensive checks on ticketless travel.

Taking all these factors into account, Shri Tripathi said, the gross traffic earnings for 1975-76, were now estimated at Rs. 17,627.5 million—an increase of Rs. 858.9 million over the Budget Estimates of Rs. 16,768.6 million. This also included the effects of certain changes in the classification of some commodities affected from November-December, 1975. Actual cash realisation was, however, expected to be Rs. 190 million less than anticipated at the Budget Estimate stage, due to slower payment of freight dues mainly by some major consignees in the public sector. Therefore, net increase in the receipts would amount to Rs. 668.9 million.

WORLD'S SECOND LARGEST

The Indian Railways is the second largest railway system in the world. Extending over a route kilometreage of 60,301 and track kilometreage of 101,395, Indian Railways employ about 1.44 million workmen directly.

The Railways own 11,100 locomotives, 36,500 coaching vehicles and 3,01,000 goods wagons to keep the wheels moving through 7,085 railway stations.

The Railways operate annually 223.5 million of passenger train kilometres and 196.6 million of goods train kilometres.

Every day, 6.7 million passengers travel, 539,000 tonnes of goods are booked and about 9,500 trains are run.

The traffic density in certain parts of the railway system is amongst the highest in the world.

INSURANCE SCHEME FOR RAILWAY EMPLOYEES

A Provident Fund Deposit-linked insurance scheme is being introduced for the benefit of railway employees.

This was announced by Railway Minister Kamalapati Tripathi while presenting the Railway Budget for 1976-77 in Parliament.

Under the scheme, in the event of an employee's death while in the service after rendering a minimum of five years' service, his heir or heirs will be entitled to receive an additional payment determined on the basis of average balance during the preceding three years in the employee's Provident Fund account, subject to a ceiling of Rs 10,000. The scheme has been introduced as a measure of social security for the staff.

“A smaller family enables parents to give greater care and amenities to each child. It helps the country as a whole to utilise its resources to better purpose.

Family Planning is an essential part of our scheme of national development. We are determined to implement this programme with all the means at our command.”



INDIRA GANDHI

davp 75/596

ACCENT ON TECHNOLOGY

S.L. SAH

THE COUNTRY is today producing twice as much foodgrains as at the time of Independence and nearly 58 per cent more than a decade ago. Increase in foodgrain output from 55 million tonnes in 1950-51 and 72 million tonnes ten years ago to an expected 114 million tonnes in the current year cannot be explained merely by good weather conditions.

Over the years the area under foodgrains has increased. The production base has notably widened as a result of a substantial increase in irrigation, provision of key inputs like fertilisers, pesticides and improved seeds, intensification of research which has yielded new strains of wheat and rice, extension, and creation of other infrastructural facilities. Land reforms have been undertaken to provide incentives to farmers. Special programmes have been started to improve the lot of small and marginal farmers, agricultural labour, farmers in drought prone areas, hills and tribal regions to enable them to participate fully in the agricultural effort.

A production potential has thus been built up, specially in the last decade, which has enabled higher levels of output to be achieved. The area sown more than once has doubled, and the irrigated areas under all crops has more than doubled.

Further Upsurge

The use of fertilisers has increased many times. Groundwater resources have been increasingly utilised. The Plan outlay on agriculture including irrigation and flood control has substantially increased from 1,7540 million rupees in the Third Plan which ended in 1965-66 to an estimated 7,6160 million in the current Plan—an increase of 334 per cent. Since farming is essentially an individual enterprise by millions of peasants, private investment plays an important role in it. In the current Plan, private investment of 2,9500 million rupees is envisaged. Substantial amounts have been provided for infrastructural facilities; more long and medium term loans have been made available through cooperatives,

land development banks and commercial banks. There is little doubt that the country is set for a further upsurge in food production.

Fifteen years ago, the increase in output was secured largely through expansion of area under cultivation, reclamation of new land, extension of irrigation facilities, improved cultural practices and plant protection measures. Thereafter the accent was on intensive production and by 1967-68 the programme had covered 18 districts. It was based on a package approach providing simultaneously for quality seeds, adequate quantities of fertilisers, and pesticides in areas capable of increasing production quickly. 1965-66 and 1966-67 were years of acute drought. A new strategy was called to mitigate the effects of occasional droughts. This led to accent on increasing application of science and technology to agriculture. There was emphasis on high yielding varieties of seeds, soil and water management, fertilisers, plant protection measures, credit, marketing and research.

Basic Strength

Thus foodgrain production rose from 89.4 million tonnes in 1964-65 to 108.4 million tonnes in 1970-71. The wheat production indeed doubled within five years. Though agricultural production as a whole had a setback once again due mainly to bad weather between 1971-72 and 1974-75, the output of some individual crops did increase. For instance in 1971-72 rice production surpassed the previous high level and again in 1973-74. In the last kharif the production of not only rice but of all foodgrains reached the highest-ever level. The output of cotton reached a record level in 1971-72 and again in 1974-75 and of sugarcane in 1973-74 and 1974-75. The basic strength of the production potential built over the years was proved once again by last year's magnificent kharif including both foodgrains and commercial crops.

The use of high yielding varieties of seeds has spectacularly increased, extending even to traditionally rice growing areas; such as Bihar and West Bengal. A number of good rice strains have been evolved. The rice varieties evolved so far have

been found suitable primarily in non-traditional areas. A breakthrough has been achieved in cotton, but a lot more needs to be done in pulses and coarse grains.

Irrigation facilities were available for 22.6 million hectares at the beginning of the First Plan. The area had doubled by 1973-74. The area benefiting from minor irrigation schemes has gone up from 12.9 million hectares in 1950-51 to 23.5 million hectares in 1973-74. For optimum use of irrigation potential, an integrated command area development programme in 51 selected irrigation project areas has been taken up. In the current Plan an additional five million hectares are to be provided with irrigation facilities. Since the First Plan, soil conservation measures have been taken in 19.7 million hectares.

Policy Redefined

Agro-industries corporations have been set up in almost all states to sell tractors on cash or hire-purchase basis and to provide repair, servicing and custom-hiring facilities. Over 2,000 agro-service centres have so far been set up. This has gone some way towards modernising agriculture.

As a result of abolition of intermediary tenures, 20 million tenants have been brought into direct relationship with the State. In most States eviction is banned by law. Legislation on land ceilings had been enacted almost all over the country by the early sixties. In the last four years the national policy on land ceilings has been redefined. The ceiling has been lowered; it has been made applicable to a family, and most of the loopholes in the earlier legislation have been eliminated. In the wake of the Prime Minister's 20-point economic programme, land reforms are now being more vigorously implemented.

The progress in agriculture should induce optimism in regard to tackling the challenging task of further modernising agriculture and sustaining increasingly high levels of production. The fact that Government Spokesmen are now talking of self-sufficiency and possible exports in the not-too-distant future bespeaks their confidence which the nation can legitimately share.

(Courtesy : AIR)

Shri Sah is a Special Correspondent of the Times of India, New Delhi.

Education has seen considerable change in the last decade. Work experience and vocationalisation as an integral part of the curriculum have been universally accepted and the TV

and the radio are coming in a big way to assist in more effective education of children and adults. The Satellite instructional programme has come with a bang and is reaching out to

people in the remotest places. Research is being oriented towards national needs and thus a new dimension is being added to scientific and technological research.

Education: The Decade of Progress

D. P. NAYAR

EDUCATION, as a major instrument of human resource development, has shared the progress which has marked this decade despite many national and international difficulties. Though we have not been able to give our educational system the necessary financial assistance it has seen considerable expansion as well as reorientation, if not on a large scale, at least in selective and critical areas in a limited measure.

During this period, 13.37 million additional children have been brought in classes I-V, 4.69 million in classes VI-VIII, 1.2 million in classes IX-XI and .2 million at the college and university stage. The percentage of the relevant age groups in institutions have increased from 77 per cent to 83 per cent in the age group 6-11, from 31 per cent to 36 per cent in 11-14, from 16 per cent to 22 per cent in 14-17 and from 2.3 per cent to 4.6 per cent (approximately) in 17-23 age group. The number of universities and colleges have increased from 80 and 1673 in 1965 to 114 and 3250 respectively in 1975. In professional education, apart from medical, where the admissions in colleges increased from 11,000 in 1965 to about 13,000 in 1975, the period is important for demonstrating the resilience of the system, which cut down the admissions to keep the manpower supply close to demand in a situation where it had been exceeded by the educational output. Various steps were also taken to absorb the professionally trained unemployed in fruitful employment.

Structural Changes

As regards restructuring of the system, the Education Commission—which for the first time viewed education as a part of the overall process of development—submitted its report, a National Policy Resolution was formulated, followed by the tremendous work done by the task forces

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of the Planning Commission for the formulation of the Fifth Five Year Plan during two years of intensive work. The Fifth Plan document was the result of much greater critical inquiry into the entire field of education than had ever been done before. The NCERT has formulated the new curriculum up to Class X and is preparing the curriculum for classes XI and XII. The critical areas of work experience and vocationalisation have been universally accepted and the various States have taken preliminary steps to introduce them as an integral part of the curriculum. The 10+2+3 pattern has been accepted by most of the States and steps are being taken to implement the structural change which will lead to a much desired uniformity in educational attainments, facilitating movement of students and teachers from one part of the country to another, thus promoting national integration.

Use of Mass Media

A large number of universities have introduced correspondence courses and evening colleges to reduce the pressure on existing colleges and to increase the facilities for working people for improving their qualifications. This step serves the ends of social justice to those who have been forced to enter life early and also promotes vertical and horizontal mobility. Non-formal education is also taking various other shapes and forms: continuation education, education for civic duties, education for career development and for fulfilling various other objectives of the age group 15-25, extension education by the universities, etc. Special developments in the utilisation of the mass media for education purposes are characteristic of the era. A technology cell has been established at the Centre and technology cells are also being set up in the States.

The TV and radio are coming in a big way to assist in more effective education of children and adults.

For the first time TV is being utilised for instruction through the Satellite. The Satellite programme has come with a bang and is reaching out to the remotest of villages. University education is coming nearer to everyday problems. Vocational courses are being introduced to prepare people, largely unemployable for employment. The problem of linking curriculum with social utilisation is being seriously considered. Another welcome feature is the impetus given to sports, games and other youth activities. The most important part of this development is the Nehru Yuvak Kendras—185 functioning at the moment—with emphasis on the non-youths' participation in development. Through the NSS the student youth are being involved in development and service to the nation, which has sacrificed a great deal to give them education—an element which was seriously missing in youth work so far. Sports consciousness has considerably increased and so also successes in sports.

Technical institutions are progressively coming to the aid of research and development. Research is being oriented towards national needs and thus a new dimension is being added to scientific and technological research.

Further Impetus

Increasing attention has been given to the weaker sections. In the field of elementary education special emphasis has been given to its spread in backward and tribal areas, among the weaker sections of society like girls and the scheduled castes and among the scattered population in the villages. The scheme of incentives has gained further impetus. Under the 20-point programme of the Prime Minister free text books, attendance scholarships, uniforms, midday meals are being given to about 12 million children. Ashram schools are being established in sparsely populated

areas. In the Fifth Five Year Plan, sub-plans are being prepared for tribal areas. This will enable the planners and the administrators to look into the special problems of the tribal areas. A sum of Rs. 2000 million has been provided for special Central assistance to the States for the development of these areas. In the education sector itself increasing weightage is being given to these areas. In the field of medical education also the emphasis is shifting to the rural areas and the small man. In agricultural education the importance of the extension role of the various agriculture universities to improve the productivity of the average farmer has been considerably highlighted.

Linking education with employment is another direction in which some steps have been taken. The Apprenticeship Act has made it compulsory for certain industries to take on apprentices and train them. Under the 20-point programme apprenticeship facilities have been considerably augmented. Though the effective functioning of this Act will take some time a serious hurdle has been overcome in the way of making industry play its due role in the training of the personnel they require. Work experience is emphasised in all stages of education and progressive voca-

tionalisation is being introduced at the secondary and university stages.

In tribal areas the pattern of education will also be oriented towards the special needs of these areas especially in the context of growing industrialisation and modernisation.

The schemes of scholarships were further expanded during 1965-75. The expenditure on scholarships was nearly doubled from Rs. 380 million in 1965-66 to Rs 530 million in 1970-71. To identify and help talented children in the rural areas a new scheme "National Scholarships at the Secondary Stage" was initiated in 1973.

Substantial Facilities

Substantial teacher training facilities have been created and the percentage of trained teachers has gone up from 70.5 in primary schools, 76.9 in middle schools and 68.5 in secondary schools in 1965-66 to 83.3, 85.3 and 79.2 respectively in 1974-75. The surplus capacity which has been created will now be used largely for strengthening inservice training. The curricula of the training schools and colleges have been reoriented so as to ensure the deepening of the prospective teachers academic and professional preparation. For this about Rs 350 million have been provided in the Fifth Plan period. To keep the teachers up-to-date and

fully informed of the latest developments in the educational field, programmes of inservice training of teachers have been given a very high priority in the Plan. The State Institutes of Education, the State Institutes of Science Education and Extension Centres have been set up in all the States to provide inservice training to teachers and to help them in preparing better curricula and better text books and to take up research work in educational problems. In regard to this work the apex organisation is the NCERT which has been considerably strengthened. The National Staff College is also being strengthened and will assist in training the administrative personnel for better implementation of Plan programmes. The educational qualifications of teachers have been gradually improving throughout the country. To attract suitable persons, the salary scales of teachers have been improved throughout the country. The teaching profession is now more attractive and respectable. The percentage of women teachers in the schools has also been going up. At the college stage most of the States have accepted the University Grants Commission's scales which are even more favourable than those in the Administrative Services. □

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Karnataka's Tibet

R. RAJAPPA SETTY

Regional Officer, Field Publicity, Karnataka

THE unprecedented task of rehabilitating Tibetan refugees at Bylakuppe in Mysore District was first taken up by the Government of Karnataka in 1960 and was completed in 1967.

In the first phase of this centrally sponsored project, 5,000 Tibetan refugees were rehabilitated on agriculture in 1,214 hectares of land.

A tractor repairing workshop and a carpet weaving centre have been set up at Bylakuppe, to promote the crafts of Tibetans. The woollen

carpets which are produced by this centre are known for their quality and beauty and have found place in foreign markets.

At Bylakuppe, the Tibetans have a Co-operative Society with a membership of 2,170. This provides all the inputs for agriculture and also runs consumer stores. This settlement was electrified in 1968. Tibetans have taken to poultry and dairy. A small Dairy Co-operative has been formed with 41 Sindhi cows, of which 14 are milching cows with a daily

yield of 100 litres. The poultry has 1,000 birds. It has a fully equipped 23 bed hospital. There are four Elementary Schools and one Central School for the settlement.

The second phase of the rehabilitation programme was taken up in 1969. About 4,000 acres of land were released by the Government of Karnataka at Doddaharve (near Bylakuppe) and Gurupur forests under the Cauvery Valley Projects I and II. The cost of these projects for rehabilitation of 4,000 Tibetans was estimated at Rs 14.89 million.

The Mysore Resettlement and Development Agency (MYRADA) has been entrusted with the works of reclamation of land, location of villages, construction of houses, electricity and water supply and financing the Tibetan cooperatives.

Electricity has been provided to 20 villages. The Tibetan Dickey Lasso Co-operative Society, Bylakuppe runs a well equipped hospital.

The 5,000 Tibetan refugees at Doddaharve and Gurupur are raising two major crops in a year. There are two cooperative societies. Besides 300 Tibetan Lamas have been resettled on 210 acres of land at Bylakuppe. The Tibetan refugees have taken to agriculture and have generated a self-sustaining economy.

Bylakuppe is hailed as 'LITTLE TIBET' in Karnataka and the Tibetans are leading a happy life mingling with the local people learning local languages. □

Do You Know?

- * Capacity for production of steel in the country has more than doubled in the last decade.
- * In 1964-65 the country was dependent on imports for all categories of alloy steel. Now bulk of the requirements is produced within the country.
- * The country has achieved the position of being able to export steel. In 1975-76, the exports are expected to amount to Rs 1,100 million.
- * There has been about twenty-seven per cent increase in the aggregate production of saleable steel by the public sector plants during December 1975 compared to corresponding period in 1974.
- * For the first time in the country, high strength weldable structural steels required for a variety of uses have been developed by the Rourkela Steel Plant.
- * The Rourkela Steel Plant has established a new record by producing over ninety-five thousand tonnes, which is ninety-three per cent of its rated capacity.
- * The Durgapur Plant has produced over sixty thousand tonnes which is an improvement by forty-one per cent over its production in November 1974.
- * The Alloy Steel Plant at Durgapur has exceeded its rated capacity.
- * Bokaro Steel Plant has commissioned the biggest and most sophisticated kind of hot strip mill in the country.
- * India has entered the steel export market in a big way. The SAIL INTERNATIONAL

LIMITED has won 15 global tenders of the value of Rs 500 million for the supply of steel items to various countries.

- * The Bhilai Steel Plant has despatched its first consignment of one thousand tonnes of 25 metre long rails to South Korea. The total Korean order is of fifteen thousand tonnes of such rails. It would yield foreign exchange worth 40 million rupees.
- * The Bhilai Plant proposes to export twenty-five thousand tonnes of rails to Iran in January and February next year and later export twenty thousand tonnes of rails to Egypt.
- * The Kalamassery Unit of the HMT in Kerala has achieved a record production of 98 per cent in machine tools and 95 per cent in printing machines during the seven month period from April 1975. □

Readers' views on **How Significant the Past Decade Has Been on India's March to Progress**

Reason for Good Cheer

There is no denying that the Indian people have achieved a great deal, during the past one decade. As *Yojana* itself listed in an article in a recent issue, (*Mrs Gandhi's Ten Years*, 1 March 1976), we have achieved a greater measure of political stability, achieving settlements in Kashmir as well as in Nagaland; we have overcome the aftermath of wars on three different occasions; we have received into our midst 10,000,000 refugees and 90,000 prisoners of war and have returned them to their countries without any trace of trauma, a feat no nation has brought off anywhere at any time. We have served as midwife for the bloodsodden birth of a new nation, Bangladesh. We have reduced to manageable proportions the energy crisis by diligently searching for and discovering new sources of petroleum. We have beaten inflation as no nation today has been able to do. We have made the basic instruments of credit and investment, banks and insurance companies, the common property of common people. We have nursed our ailing public sector units back to health and have given

them commanding heights over the entire economy. We have put to rest festering disputes over river water resources threatening the peace between different States. We have given SITE, an instrument of modernity, to millions of people in farflung villages. We have sent aloft, albeit with foreign help, our own satellite. We have successfully experimented with our own atomic device. All in the course of the past ten years.

All this amounts to quite a bit. But the irony of the situation is that we find ourselves constantly doubting ourselves, over what we have done and over what we have *not* done. We also find ourselves constantly rebutting the accusations of foreigners.

What brings about this self-doubt? The problem, I believe, is one of perspective: If we view our present in terms of India's dismal past, the achievements are indeed outstanding. But if we view it in terms of the future that could be, in terms of the affluence of our foreign critics, or even in terms of the magnitude of the problems facing us, it indeed may

become small. Our achievements are significant and insignificant both at once.

But there is no need to lose heart: What we have done in the fields of science and technology is what really counts, if we keep in view the social environment in which this took place. And while assessing the strides science and technology have made in India, we have to take into account not only Aryabhata, SITE, and Pokharan, but also the doubling of

agricultural production, an event brought about by our traditional farmers applying non-traditional inputs and methods to their ages-old profession. The change in lifestyles in rural areas howsoever small is the most significant that has happened in the past decade in India, because the multiplier effect of that change outweighs any other aggregate.

P. N. Anantharaman
Naraina, New Delhi
First Prize : Rs 50.

Credit for the Leader

It is an interesting topic for discussion; not that there is not much to say about our achievements in the last 10 years or 25 years; but there is a good deal to say against our attitude to ourselves. There is a proverb in Kannada that the plant growing in your backyard is not herb. As a people we seem to be highly import-oriented. We would like to be praised for what we do by others. We are hardly able to look at ourselves sympathetically. Not that we do not have failings. We do have them in good measure and some of them are of a serious nature. But the point is we run down ourselves far more easily than others, not too friendly to us, do it about us.

I do not mean to say that everything that we have done in the last 10 years need be attributed to any individual. Our achievements and failures are those of our people.

What we do but tend to forget, however, is the stewardship of a Prime Minister who matters a good deal in a country of our size and complexities. It is not easy to be a successful Prime Minister of India. Perhaps, it is one of the most difficult political assignments for any individual anywhere in the world. But I believe we have enough grounds to be proud that we have had a Prime Minister who held on to the reins during the worst of storms. For nearly one-half of this past decade we had to suffer the disheartening effects from bad harvests. You know what it means for India's poor millions! On top of it we had wars thrust on us in which very few of the countries, that boast of democracy, ever shed an honest tear for us. They were terrible, not exciting years. There were moments also when we heard strident voices crying down our commitment

to democracy, our planning, our national character, our administration, our officials, our businessmen, our industrialists, our workers and what have you. In this atmosphere of self-denigration even our achievements seem to be crumbling into non-achievements. Who gave the alternative course of action or forged a new leadership to take India on a quicker path of progress? Can any one say that there was an alternative leadership or an alternative programme which won the heart of millions.

Came the Emergency. Tears have been shed. Torrents of them. There are those who think that we have ceased to be a democracy. Others who think that a new era of self-deception has begun. Still others who wonder where India will go, to the right, to the extreme right or to the extreme left. All these gratuitous words of sympathy, mostly coming from outside, will not help us. The fact remains that the last 10 years have been very crucial to India's growth as a nation, as a self-respecting nation. There are certainly areas where we have not done well. There is no reason why we should not do better in the coming years. But what is really relevant to us, very relevant to our future, is an objective assessment of the nice things that we have done. I believe we have every reason to be proud.

S.R. Gopal
Saket Nagar,
Indore (M.P.)
Second Prize : Rs 40

A Decade of Hope for the Have-Nots

This eventful decade has begun with a war dislocated economy. The evil impact of it was much felt on the peace oriented economy of this country. Stoppage of foreign aid, failure of monsoon added more to our problems.

Taking the opportunity of economic disarray the self-interested elements in the country started injecting doubts in the minds of the common people about even the utility of having a public sector in India.

It was due to the determination of the Prime Minister Shrimati Indira Gandhi that the roots of accepted policy of national economy were not cut. She has never shown any doubt that for the development of India

socialism was the only path.

While she was steering the country through these difficult times came the Indo-Pak conflict in Bangladesh. As a result of the convincing victory the stature of India rose to new heights—the Prime Minister became the symbol of freedom, democracy and social justice. But this situation instigated some political parties and leaders, who became envious of her influence in the country, to mount agitations against her stewardship.

Then came the Emergency—the sense of relief it gave to the people was demonstrated throughout the country through the all round progress India made in an atmosphere of peace.

Power is now out of bounds for the vested interests. She is now determined to change the social order and economic injustices. It is because of her uncompromising effort that the feudal edifice of traditional exploitation is being demolished.

The decade has certainly recorded achievements in various economic fronts. Much more still remains to be done. But the most important aspect of it has been the birth of a nation having self-reliance, and committed to the ideas of socialism and secularism.

Kalinath Chattopadhyay
Bhaduripara
Kalna, Dist. Burdwan
Third Prize : Rs 30

An Unprecedented Step for Progress

THE decision taken in the wake of proclamation of Emergency have wrought drastic changes in the life of the common man. Many programmes have been put forward before the country earlier also, but the Prime Minister's twenty-point programme is unprecedented in the popularity and support it has received. The problems of a vast country like India are very difficult to solve; but the twenty-point programme has dealt with them with such subtleness that it has received instant appreciation from every quarter and no wonder this programme is covering more and more people and areas very

quickly.

Implementation of twenty-point programme in urban areas has created some pockets of discontent. Some of the people affected by the demolition of unauthorised constructions have failed to appreciate the significance of the programme. Perhaps, what happened, was beyond their comprehension. But the implementation of the programme will in the long run, help in the uplift and well-being of the masses. For this, we must suffer a bit for a shortwhile

Savitir Nagar, Gita colony and Shakarpur were inhabited by the people of the lower strata. These people have been shifted to Khichri-

puram. The landlords of the demolished houses are being given residential plots as well as compensation. Most of these people are uneducated labourers who live by shoe-shining, vending nuts, and such other occupations. I asked a 60 year old nut vendor of the locality whether people like him had derived benefits from the twenty-point programme. He said that he was illiterate, so he could not understand the programme; but he was sure that the Government was doing something for the poor like him. However, he did not know how he could derive advantages out of it.

I met Shri Indradeva Dikshit of Khichripuram, whose house in Gita Colony has been demolished. I asked what his reaction was on the demolition of his house. He replied enthusiastically that everybody is taking part in the implementation of the twenty-point programme in a disciplined manner and this goes to prove how far-sighted our Prime Minister is. He did not feel sorry for the demolition of his house, because he said, the house he was given now, was better than his demolished house.

The Wisdom of Experience

WISDOM comes from experience and experience comes from mistake'. Yes. We have learned many things from our past mistakes (from planning for our country or planning of our family.)

Last two decades were the testing period for us with lock-out, go-slow demonstration, corruption menace etc. But last two decades have played a vital role both in economic and political sphere, besides social side. We have learned a lesson from the past and have taken steps to remove corruption, abolish lock-out and demonstration, strike etc.

So far in our 'dictionary of life', 'discipline' had little meaning. But now we are realising how discipline benefits the nation. We are self-reliant in defence matters after our experience in the brief Indo-China conflict in 1962.

Sudden price-hike announcement by OPEC countries made us to realise our responsibility to save foreign exchange and to quench our thirst for oil so as to be self-sufficient within six or seven years. There is no other country such as ours to tolerate the parallel Government run by smugglers and anti-social elements. But that amount of tolerance has produced a good result and we have contained our galloping inflation when no other developed country in the world could do it.

Nuclear explosion and Aryabhata will talk of our technical knowledge for ever everywhere. It is evident for

our scientific potentiality and we are none inferior to any other developed or developing nation.

What we have to learn from the past experience is that 'we have to learn to live as Indians'. If that kind of atmosphere is created then no devil or evil can approach us.

S.A. Srinivasa Sarma
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Coimbatore-641012

—Nishikant Sharma
C/o Inderdev Dikshit
F 136 A S.P. Mukherji Marg
Laxmi Nagar, Delhi-6

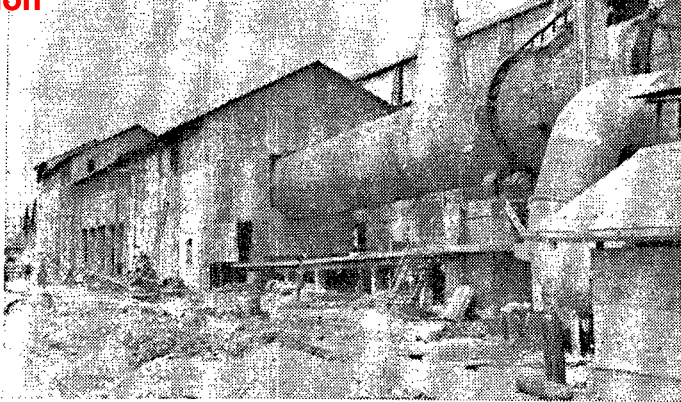
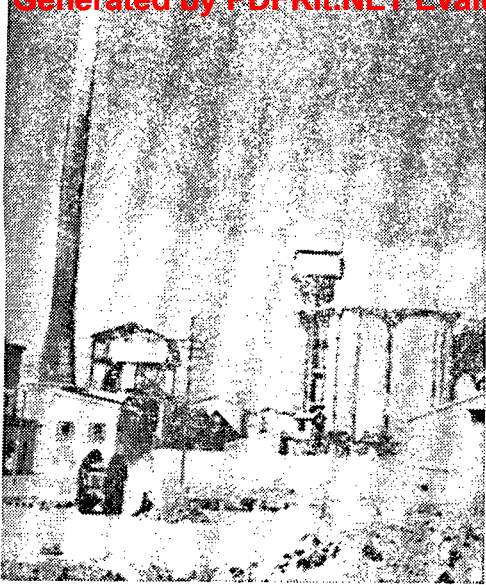
Gains of a Rare Order

INDIA faced a variety of problems during the past decade, all of which were dealt with great patience and tact. Of special economic significance was the nationalisation of 14 leading commercial banks which was followed by General Insurance, the coal industry and also abolition of the privy purses and privileges of former princely rulers. On the political front, the biggest achievement was liberation of Bangla Desh from the tyrannical rule of West Pakistan warlords. Internal problems like reorganisation of the States of the Punjab and Haryana, permanent solution to the Eastern region are no small achievements. The Telengana issue which defied solution for long was solved amicably. The year 1975 saw return of Shiekh Abdullah as Kashmir Chief Minister, the peace treaty with under-

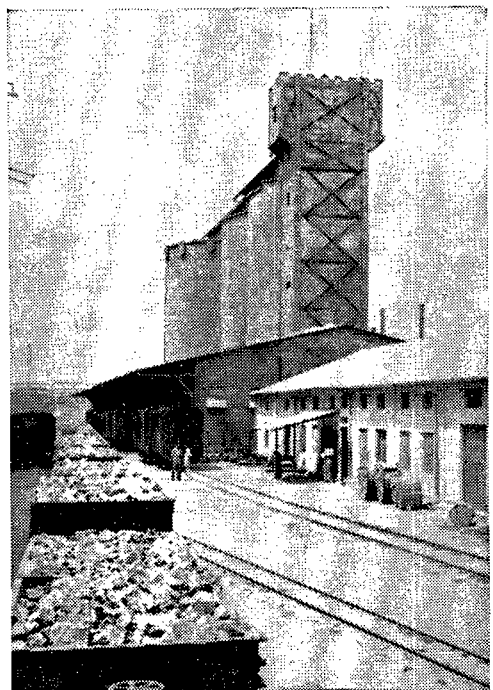
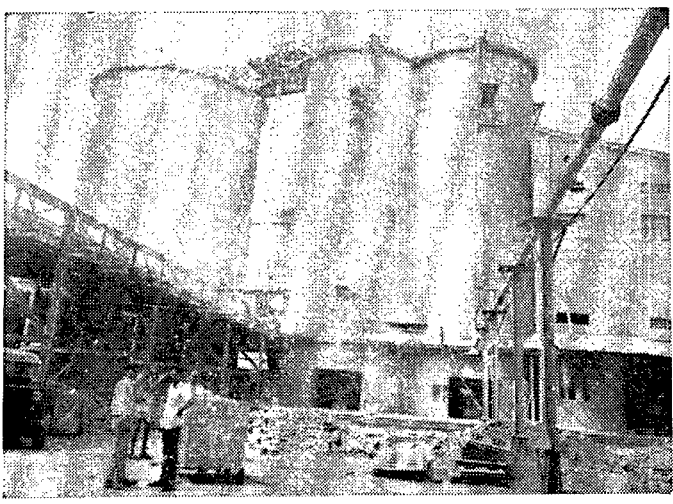
ground Nagas, the integration of Sikkim as the 22nd State of the Indian Union.

A major technological breakthrough in the past decade was in the field of atomic energy. The atomic power station commissioned in Tarapur in Maharashtra, the underground implosion in Pokaran in May, 1974 and the launching of first space satellite "Aryabhata" in April, were no small achievements. A sense of discipline infused into the nation in the wake of internal emergency and the launching of 20 point programme to revolutionise the economic order of the country are achievements of a rare order.

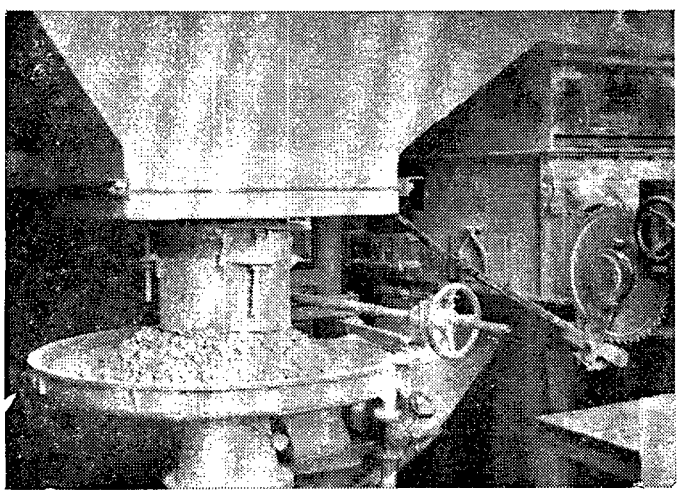
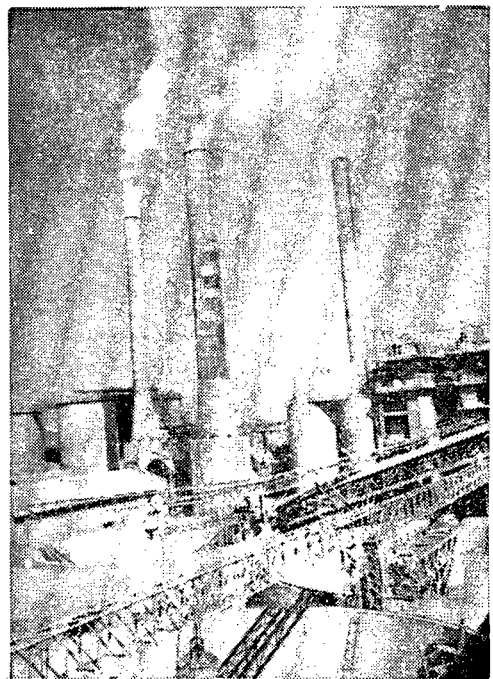
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Secunderabad

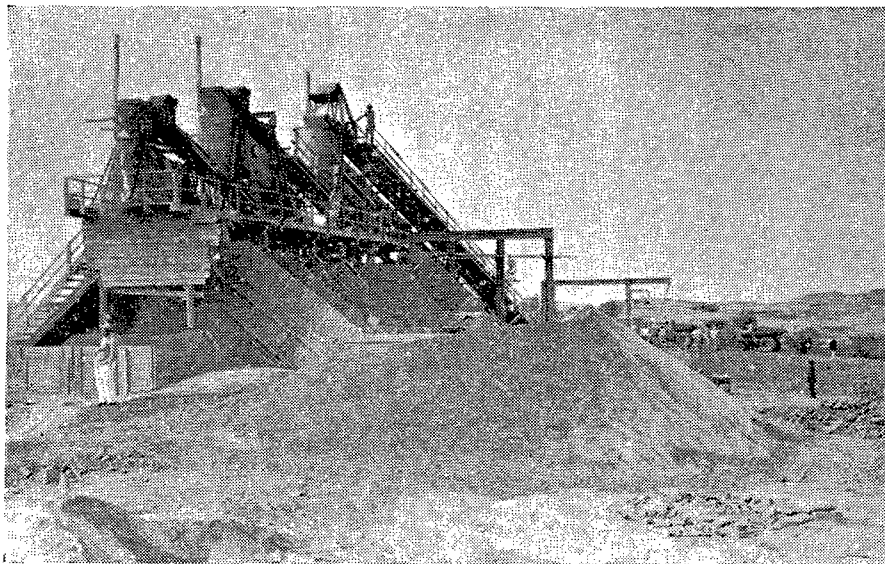


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THE CEMENT INDUSTRY

A Survey

The cement industry in India in the past 10 years or so has made rapid strides with production now touching 17 million tonnes a year. There are very few of those rigorous restraints on free distribution of cement that existed before. India's cement industry has even entered the arena of exports. But to keep pace with the growing demands following the revolutions on the farm and industrial fronts, the industry has to draw up a carefully-planned expansion programme to provide for future needs.

N. G. CHAUDHRY



IN THE DAWN of civilisation when man learnt the use of fire and learnt to build a home he used clay for cementitious purposes. He moulded clay into bricks and bound them in clay mortar to raise his hamlets and shelters for livestock. Even today clay houses are built by the humble folk in villages and towns.

Centuries rolled by before man discovered the use of lime and many more centuries thereafter before he came to put it to varied construction and decorative purposes. But it was only in early 19th century that a judicious combination of clay and lime resulted in what is now commonly known as Portland Cement. The credit for discovering this vital input of economic development goes to a brick-layer of Leeds in 1824.

Role of Cement

It will be difficult to imagine a modern society without cement and steel. Together with oil and electricity they have come to symbolise all that we cherish in modern living. Without them, the economy we are familiar with would grind itself to a halt. There would be no Bhakras or Hirakuds, no multi-storeyed structures or big factories. The level of production and consumption of cement can be taken as a barometer of industrial progress.

Growth of Industry

Cement is one of the few mineral-based industries in India which has made spectacular progress not only quantitatively and qualitatively but also in technology. Today in just 70 years of its existence it can boast of technical know-how for manufacturing and installing a whole range of cement plants.

With its dependence on raw materials availability—cement grade lime—its growth, dispersal and concentration are naturally determined by the location of limestone deposits. This has led to regional imbalances in the growth of the cement industry. For instance, as is evident from the table, the Southern and Western Zones produce more than they consume while the position is reverse in the Northern and Eastern regions.

The first ever cement plant in the country went on stream in Madras in 1904. But it soon succumbed to its teething troubles. In 1914, however, the Associated Cement Company set up a plant at Porbandar in Gujarat with an installed capacity of 14,000 tonnes of cement a year. This was followed in the next three years by two more plants at Keymore in Madhya Pradesh and at Lakheri in Rajasthan. These three plants together produced

85,000 tonnes of cement annually. But in the years to follow the progress of the industry remained slow and unrewarding due to varied reasons, principal among them being the prejudice of the authorities against indigenous production. As a result, Indian assets included only 18 cement plants at the time of partition.

The era of planning in independent India however, gave the industry a fillip. During the First Five Year Plan (1951-56) the target of production, set at 4.8 million tonnes was by and large achieved. While the rate of growth increased to over 13 per cent per annum during the Second Plan period, the target set at 13 million tonnes could not be fully fulfilled.

Last Decade

But it was in the last decade 1965-75 that cement industry witnessed considerable growth both in installed capacity and actual production. Almost 10 million tonnes capacity has been added during the decade as compared to the total capacity of 10 million tonnes till 1965. In 1975 the production stood at 16.15 million tonnes as against 14 million tonnes in 1974, thanks to the discipline infused into the industry, leading to lesser mandays lost and restoration of coal and power cuts.

The decade also has the distinction of public sector participation in the industry. To mitigate the shortfalls, the Government of India plunged into the field by setting up an undertaking, the Cement Corporation of India. Its first enterprise at Mandhar (Madhya Pradesh) went into operation in 1970 with an annual capacity of 2 lakh tonnes. Another plant has been set up at Kurkunta (Karnataka) with the same installed capacity. The Corporation also contemplates the setting up of two more plants with a capacity of two lakh tonnes each, one at Bokajan (Assam) and another at Paonta (Himachal Pradesh), besides the expansion of its existing project at Mandhar for production of Slag cement with 1.8 lakh tonnes capacity. In the fifth five year plan the Corpo-

Capacity Utilisation of Cement Industry

	Installed capacity (million tonnes)	Production	Capacity Utilisation (percentage)
First Plan			
1951-52	3.75	3.29	85.3
1952-53	4.01	3.57	89.0
1953-54	4.38	4.03	92.0
1954-55	4.62	4.42	95.7
1955-56	5.02	4.00	91.6
Second Plan			
1956-57	5.81	5.16	88.8
1957-58	6.96	5.98	85.9
1958-59	7.89	6.10	77.3
1959-60	8.48	7.29	85.9
1960-61	9.30	7.97	85.7
Third Plan			
1961-62	9.47	8.28	87.4
1962-63	10.00	8.85	88.5
1963-64	10.50	9.43	89.8
1964-65	11.24	9.78	87.0
1965-66	12.00	10.82	90.2
Annual Plan			
1966-67	12.56	11.07	88.1
1967-68	13.78	11.48	83.3
1968-69	14.96	12.24	81.8
Fourth Plan			
1969-70	15.96	13.80	86.5
1970-71	17.39	14.55	82.7
1971-72	19.55	15.04	76.9
1972-73	19.76	15.58	78.9
1973-74	19.76	14.70	—
1974-75	20.6	14.70	—
1975-76	21.16	16.50 (Estd.)	—

ration plans to set up two plants in Madhya Pradesh and three in Andhra Pradesh with a total capacity of 0.2 million tonnes.

In the private sector also, licences for a capacity of over 30 lakh tonnes and letters of intent for a capacity of over 65 lakh tonnes have been approved.

As a result the industry hitherto controlled by private sector will now have to vie with the public sector, which will act as a barrier on its arbitrary functioning. As it is, the private sector accounts for 83 per cent of the production with ACC coming at the top with 35 per cent share.

With the production of cement picking up lately the position has now eased considerably. Gone are the days of scarcity when house builders were directed to put a halt to construction for want of cement.

Several projects had been suspended mid-stream. But now the construction activity is again in full swing. On the contrary, control on distribution has also been lifted in a number of States like U.P., Rajasthan, Delhi, Gujarat, Madhya Pradesh, Tamil Nadu, Karnataka, Kerala, and Andhra Pradesh; there is partial control in Punjab, Haryana, Chandigarh, Assam, Maharashtra and complete control in a very few.

We even figure on the export map of the commodity. The exports amounted to 2.08, 2.05 and 1.82 lakh tonnes in 1972, 1973 and 1974 respectively earning precious foreign exchange. Our main buyers are Iran, Muscat, Dubai United Arab Emirates and Bangladesh.

But all this does not signify that we are surplus in this commodity. We have still to go a long way to meet the fast growing demand at home. This is bound to accentuate as a result of the all-round development which has generated substantial money income in rural areas. The government's plans for improved roads, housing and irrigation schemes are going to make further heavy demands on the resources. It is estimated that the demand for cement might be of the order of 28.0 million tonnes per annum by 1978-1979 which would call for installation of additional

(in million tonnes)

Region	Installed Capacity	Production	Consumption	Shortfall/Surplus (3-4)
Northern Region	3.4 (17.26)	2.7 (17.20)	4.4 (28.39)	-1.7
Eastern Region	3.3 (16.75)	2.5 (15.92)	2.7 (18.06)	-0.2
Western Region	5.6 (28.43)	4.5 (28.66)	4.2 (27.10)	+0.3
Southern Region	7.4 (37.56)	6.0 (38.22)	4.1 (26.45)	+1.9
	19.7	15.7	15.5	+0.3

(Continued on page 35)

CEMENT

MINERAL DEPOSITS

BY S.M. MATHUR

THE BASIC MATERIALS for the manufacture of various types of cements are calcareous substances suitably combined with other ingredients to give a carefully proportioned mixture for calcining. Limestone is the most widely used calcareous material all over the world, including India, though sea shells, chalk, calcareous sand and *Kankar* are also used for the manufacture of cement where readily available.

Limestone is found in many parts of India, and the quantities available are enormous. However, all limestone is not suitable for cement manufacture and the known reserves of the proper grade of stone are comparatively smaller. Moreover, several of such deposits are not easily accessible, being situated far away from railway lines, and these cannot be utilised until communications are improved. More suitably situated limestone and other calcareous deposits of the requisite quality have to be explored in order to meet the fast growing domestic demand, as well as for export to nearby countries in order to earn foreign exchange. There are at present 51 cement factories in India with a total rated capacity of 19.7 million tonnes, but which produced only about 15 million tonnes in 1973. The present demand of cement is estimated at twice this, and is bound to go up.

The specifications for cement grade limestone are:

CaO	-Minimum	43.0 per cent
	(preferably)	44.0 to 45.0 per cent)
SiO ₂	-Maximum	14.0 per cent
Al ₂ O ₃	-Maximum	4.0 per cent
Fe ₂ O ₃	-Maximum	2.0 per cent
MgO	-Maximum	3.3 per cent
SO ₃	-Maximum	1.7 per cent
Alkalies	-Maximum	1.0 per cent
P ₂ O ₅	-Maximum	1.0 per cent

A rock of this composition is a natural cement material. It is rarely though that any limestone possesses this exact composition, and stone or other material that contains lime above 43 per cent and magnesia less than 3.3 per cent can be utilised as a cement raw material. A stone with high magnesia is entirely unsuitable for cement although marginally

high magnesia in certain limestones can be lowered by beneficiation. High lime can be depressed by using suitable corrective materials, like shale, and even sandstone when silica is too low. Imbalances in alumina and iron can also be corrected by use of suitable additives. These materials also take care of low silica when suitable corrective materials, mainly argillaceous, are added. Where the silica is free occurring and is not too high, beneficiation can bring it to the required quantity. Beneficiation may also be used to remove mineral impurities like amphibole, pyroxenes and micas, if present in the limestone.

A highly pyriteferous limestone is likely to be high in sulphate, and, therefore, unsuitable for cement-making, though in other respects it may be very good. If selective mining does not succeed in eliminating the pyrite, beneficiation can get rid of it, but it may be uneconomical to beneficiate a stone only to eliminate pyrite. Most Indian limestones do not pose much problem regarding alkalies and phosphate.

After calcination of the carefully proportioned raw mix, a clinker is formed. About 4 to 5 per cent gypsum is added to the clinker and the two are ground together to produce the finished product. Gypsum acts as a retarder and prevents too fast setting of the cement.

Limestone Deposits

Several geological horizons in India contain limestone deposits. Not all are suitable for making cement, but even then the resources of the requisite quality stones are believed to be enormous. The main geological formations which carry important reserves of cement grade stone are briefly discussed here.

Dharwars and Cuddapahs—There are several "series" and groups which contain limestones, mostly crystalline. Cement-grade has been reported from the Ajabgarhs in North-east Rajasthan, but the outcrops are scattered. Massive limestone is found in the Aravallis near Udaipur. A cement plant has recently been set up there. Other Aravalli limestones of note occur near Jaipur and Bundi in Rajasthan. Good quality limestone occurs in the Kolhan and Gangpur series in Bihar and Orissa.

Several Archaean crystalline lime-

stone bands are found in the Coimbatore district of Tamil Nadu and the adjoining Palghat district of Kerala. Some of these bands are being used to produce cement. Kushalgarh and Bhagwanpura Limestones in some parts of Rajasthan may contain cement-grade stone, but proving operations have to be carried out.

Several geological formations in the Cuddapahs contain limestone horizons. The Vempalle Limestone belt extends over Anantpur-Cuddapah districts of Andhra Pradesh. The stone is of varying quality, bands of cement grade also occur. Several other formations of the Cuddapah system contain workable limestone deposits in the basin. Large areas of limestone of good quality occur in the Kaldgi series in north-western Karnataka, and a cement-grade deposit is utilised by one plant. The Penganga beds also contain extensive limestone; these are exposed mostly in and around Adilabad district in Andhra Pradesh. In the Chhatisgarh basin in Madhya Pradesh and adjoining areas of Orissa, there occur limestone deposits spread over large areas. They contain vast reserves of high quality stone. Several cement factories get their raw material from them. The Bijawar and Gwalior series also contain limestone formations but they are generally of low grade.

Vindhyan System—There are two main horizons of limestone in this system which contain large deposits of cement quality stone. These are the Rohtas (including Nimbaheera) and Nagode (Bhander) Limestones. These cover vast tracts in central India starting from Shahabad (Bihar) and southern Mirzapur district (U.P.) through many parts of Madhya Pradesh and Rajasthan right upto Chittorgarh in the west. There are also large outcrops of limestone in the Trans-Aravalli Vindhyan. Several cement plants derive their raw materials from the Vindhyan, and their potentials are enormous.

Kurnool System—The limestone found in the various series of this system resemble the Vindhyan rocks, whose equivalent they are considered to be. Vast outcrops of the Narji Limestone are found in the Guntur district of Andhra Pradesh. Several cement works in the area use this stone, some taking it to factories situated at considerable distances. The Bhima Limestone is developed extensively in a band trending north-east to south-west in the Gulbarga and adjoining districts of Karnataka and Andhra Pradesh.

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Palaeozoic Formations—Several Palaeozoic limestone horizons have been mapped in the Himalayas. Since most occur in areas which are difficult of access, they cannot generally be utilised for cement making. However, some outcrops of the Mandhali and Deoban Limestones are so situated that they may be used in small capacity cement plants serving the hill areas.

Triassic and Jurassic Systems—A major part of the Triassic System is composed of various types of limestones. Since these formations occur deep in the Himalaya, there does not appear to be any chance of their utilisation in the foreseeable future. The Jurassic System also contains a few limestone bands, but they too occur in inaccessible areas.

Cretaceous System—The Cretaceous limestones of the Himalaya are equally inaccessible. However, the Cretaceous outcrops in southern India (Tiruchirappally and Pondicherry areas) contain cement-grade stone, which is being utilised by at least one plant. Limestone of this age also occur in the Dihang river valley in Arunachal Pradesh.

Eocene System—Large resources of excellent quality nummulitic limestone is found in this system on the Shillong plateau in Meghalaya. The Chirrapunji Cement Plant makes use of this stone. There are several localities in the Garo, Khasi and Jaintia and Mikir hills where the limestone is of high grade. At several places it occurs close to coal seams, which could be of great advantage in utilisation of the limestone for cement manufacture.

Recent—Along the southern coast of Gujarat occurs a band of marine limestone containing shells of foraminifer *Miliolite*, called locally as Porbander stone. It contains good cement-grade stone and is used by the factories in the area.

Other Calcareous Deposits

Kankar—Kankar is found in most parts of the country as a concretionary material along with soil, but the deposits are generally sparse, and it is only occasionally that a large quantity is concentrated at one locality. This is why it has not found wider utilisation in cement industry. The only factory in India which uses this material exclusively is Dalmia Dadri in Har yana. Kankar is also used partly by Sankaridrug in Tamil Nadu. Large quantities of Kankar are also reported from the Ganjam district of Orissa.

Sea Shells—Some of the lakes in

Kerala contain beds of sea shells, but the deposits are not large. The one found in the Vembanad lake near Kottayam is large enough to support a small-capacity cement factory.

Calcareous Sand—Long stretches of the south coast of Gujarat have sand beaches which are highly calcareous and are suitable as a raw material for cement manufacture. Some islands also contain such sands. One factory at Dwarka depends entirely on this material for making cement, while another factory at Sikka uses it partially for the purpose.

Marl and Calc-tufa—These calcareous deposits are found in many parts of the country, but the reserves within the individual occurrences are quite small, inadequate for establishment of the conventional-sized cement plants. However very small capacity say, of 25 to 50 tonnes per day, vertical shaft kilns may utilise these materials. Tests in several States are being carried out for the purpose.

Calcium Carbonate Sludge—The gypsum-based Sindri fertilizer factory produces about 900 tonnes of calcium carbonate sludge, which is used as the basic raw material for making cement in place of limestone.

Other Raw Materials

Most limestone and other calcareous materials need an additive substance to bring the raw mix to the required proportion. The commonest is clay or other argillaceous material. Its quality required depends entirely on the composition of the limestone being used. Some argillaceous material can almost always be found near the limestone deposit which may be utilised. Most bedded limestones contain interrelations of shale, which are likely to meet the requirements of additive material. Some impure limestones occurring with high quality stone may also be blended, and there by may serve to increase the overall reserves of cement-grade stone in that deposit. Even ordinary clayey soil is something found to serve the purpose of the argillaceous material. There is generally no problem to locate a suitable clay deposit near the factory site.

When a calcareous material is deficient in alumina and iron, the balance may be restored by use of a lateritic material ferruginous bauxite, boiler ash or flue dust having suitable composition. Such materials may or may not be available within a reasonable distance from

the factory site. Since small quantities of these materials are generally required, it may not be too expensive to procure them from distant sources if needed. It is however desirable to look for these materials in nearby areas when prospecting for the limestone deposit.

Gypsum is an essential additive. This mineral is produced mainly in several western districts of Rajasthan, some districts of southern Tamil Nadu, some Himalayan foothill areas of Uttar Pradesh, some parts of Kutch and other places in Gujarat, and Baramula and Doda districts of Jammu and Kashmir State. The cement factories from all over the country obtain gypsum from the source that may be the nearest. Since the requirement of this mineral in the total quantity of cement is small, its transport cost does not have an important bearing on the overall cost of production. Besides the "pure" cements made by calcining a carefully proportioned mixture of calcareous materials with argillaceous rocks, there are certain cements made by mixing with the slag and with rock or burnt clay called pozzolana. The various steel plants are a plentiful source of slag, and at least ten factories use slag for making cement.

The production of a few factories is based entirely on slag; utilisation of slag is partial in several other factories. The slag suitable for making cement must contain less than one per cent magnesia, and, therefore, all slag may not be acceptable. Most slag should contain 35 to 45 per cent lime, 27 to 32 per cent silica and 17 to 31 per cent alumina.

Beneficiation

As has been stated earlier, large parts of the limestone found in the country are not suitable for cement making. In view of the shortage of this essential commodity in the country and to correct regional imbalances in the production of cement, it may be necessary to beneficiate limestone from suitably located deposits to make it conform to cement grade. This will entirely depend on the economics of production and distribution. At present the freight equalisation fund ensures a uniform sale price of cement in every part of the country, irrespective of the distance the product has travelled from the factory to the consumer. Although this is an excellent arrangement in the present situation, to my mind it inhibits entrepreneurs to set up cement factories

in deficit areas where limestone may be available, but of low grade. Due to economic factors it may not be possible to maintain freight equalisation for all time to come, and studies should be started from now on lower grade stones for making them suitable for cement manufacture by beneficiation. Beneficiation of limestone is being carried out successfully by some factories in this country, and a little enterprise and foresight are required to plan a factory from the beginning based on beneficiated stone. It may be stated here that all limestone is not amenable to beneficiation. Free-occurring silica, some mineral matter and other insolubles can be removed by floatation.

Export-Oriented Deposits

There is considerable demand for cement in the neighbouring countries and India is well situated geographically to meet a good part of their requirements, having the necessary resources of raw materials and technology. Unfortunately, little attention has been paid to this aspect of the industry. By exporting large quantities of cement, this country not only can earn valuable foreign exchange but can also make good political impact on the neighbours, particularly the oil rich nations of the Gulf region and other countries of this sub-continent.

At present about 0.2 million tonnes of cement is exported by India to these countries mainly by a few factories in Gujarat and eastern India. The main reason for this poor export performance is the low production which is not able to satisfy even the domestic demand. Moreover it appears that we have not paid serious attention to explore the possibility of export of this commodity.

Several deposits of limestone and other calcareous materials are situated near the coast which could be utilised for setting up new export-oriented plants or earmarking production from some shore-based cement factories mainly for export.

The miliolitic limestone deposits of Saurashtra coast are utilised by some factories in the area for production of cement. Some of these factories do export a little quantity, but most of the cement produced by them is diverted to the highly industrialised western region in India. There is need to expand the capacities of the existing factories in the area as well as to set up more works based on this material. However, this limestone needs to be explored extensively to mark our cement-grade

stone for new as well as existing plants. It is reasonable to expect that adequate reserves of limestone will be found in the vast outcrops of the miliolite limestone occurring in several stretches from Dwarka to Bhavnagar—a distance of almost 400 km. Moreover, sand found on the Gujarat coast at numerous places and on some islands is calcareous, and could be used in cement making.

Any other significant deposit of calcareous material suitable for cement making is not known to occur near the west coast, except at the southern end in Kerala. A deposit of lime shells in the Vembanad lake is utilised to make cement at Kottayam. Occurrences of shell beds in some backwaters in Kerala have been reported, but their economic content has yet to be established. The Kottayam plant is well situated for export-oriented production provided the territories it feeds in India are supplied from other factories inland.

An occurrence which has been completely ignored for utilisation as a cement material is the vast quantities of high-grade calcareous sand that is available in Lakshadweep. The problems and method of using this sand will have to be carefully examined. If a factory could be established on this island, it could be excellent for making cement for export and would change the entire economy of the local community. Coal and corrective materials will have to be shipped there. But for the oil crisis, an eminently suitable arrangement would have been to get oil in a tanker from the Middle East for use as fuel and send the ship back with cement (or, rather, clinker). An alternative to establishment of a factory on the island itself would be to bring the sand to a mainland plant where it would be easier to transport the corrective materials and coal. In any case, the transport of coal and other materials to the island or sand to the mainland will halt during the monsoon as crossings would be difficult, and stockpiles will have to be maintained.

There are several limestone deposits along the eastern sea board of southern India which feed cement works close enough to major ports. Southern India produces cement in excess of its needs, and this surplus could be diverted for export instead of into domestic channels. Suitable deposits could also be developed to increase the present capacities of the existing plants in this part of the country and to put up new ones, mainly oriented towards export.

The cement works in Bihar and Orissa could also be expanded and additional limestone deposits of desirable quality developed in these states for establishing new factories with export of cement to Nepal and Bangladesh and even countries of South-East Asia in view. Vast reserves of cement-grade limestone have already been investigated and proved in Bastar district of Madhya Pradesh. Based on these deposits a large-capacity plant could be set up along the D.B.K. railway—specially constructed for export of iron-ore through Visakhapatnam port—which could also be used for export of cement or clinker after the necessary augmentation of its carrying capacity.

Incidentally, it may be observed here that export of clinker is more desirable by sea, because finished cement could be damaged by moisture during transit. If long term agreements could be entered into with the importing countries it would be economical and technically desirable to construct clinker mills there.

General Considerations

Most cement works in India have been established in the past in those areas, where the required quality raw materials are easily available near railway lines. The general tendency for entrepreneurs is to set up new factories near established sources of raw materials and localities with good communications. This is but natural; but in view of certain areas that are deficit in this important commodity, the Government should encourage and induce intending private investors and enterprises in the public sector to depart from the traditional and establish new factories in such areas, where there are limestone deposits, but problems of communications exist.

There are also several limestone deposits close to railway lines, but they have been neglected so far. The main reason is that it has not been proved whether they are of cement grade. A private entrepreneur is especially chary of sinking his money on prospecting in a little known area. Even where the preliminary data about the stone obtained by the Geological Survey of India, State Directorates of Geology & Mining or other agencies, show that the deposit contains reserves of suitable quality, detailed and efficient prospecting has to be carried out in order to prove the deposit and to delineate suitable blocks. This requires an expenditure amounting anything from Rs 5 to 15 lakh. In my experience private firms are

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reluctant to spend this money on proving operations, although they may be investing anything from Rs 100 to 250 million on the project. The percentage of expenditure on proving adequate and suitable resources of raw materials on which the success of their plant will entirely depend comes to an insignificant one per cent or so of the total investment. Some of them would like to save one per cent and thereby may risk jeopardising 99 per cent of their capital. They even do not want to take lesson from some existing cement factories where production has gone down because availability of the basic raw materials has dwindled due to inadequate proving of limestone done when the factory was being planned.

Along some railway routes suitable quality and quantity of limestone has been proved adequately, but it has not been possible to set up new cement plants in these areas because the railway lines are not in a position to bear any additional traffic. Expansion of the line capacity is the answer. The railways will have to consider this aspect in the interest of this important consumer industry. A backward area like Bastar in Madhya Pradesh can be further opened up if the vast limestone deposits of the Khanger valley could be utilised to set up a large capacity cement plant along the D.B.K. railway line. It could supplement the cement deficient eastern and northern states. There are more than one cement factories to give a few examples, in the Chittorgarh-Neemuch (W. Rly), Satna-Katni (C. Rly), Shahabad-Vikarabad (S.C. Rly), sections along which the density of railway traffic is quite high and the lines are unable to bear any more strain which would be generated if more cement plants are established based on the large deposits of cement-grade limestone found along these routes.

There are certain limestone deposits of good quality which are situated within 50 km. of rail heads. It may be beyond the financial capacity of the private firms to pay for construction of railway siding of such long distances, but the railways could possibly consider construction of branch lines to these deposits as part of their own development schemes. If this could be done it may become attractive for public and private sector undertakings to establish cement factories based on such deposits. The areas would also get the benefits which inevitably follow opening up of a territory by railways. The area extending from Rewa through Satna (C. Rly). to Maihar, as an

instance, has a high density of population and is rich in forest and agricultural produce besides possessing good quality limestone deposits. Two or more cement factories could easily come up in this belt to feed the high demand areas in the north if the facilities of such communications could be provided. Several deposits between Satna and Rewa (in eastern Madhya Pradesh) have been proved by the Geological Survey of India to contain both cement and flux grade limestone (another aspect discussed elsewhere in this paper), but the absence of rail communication has so far inhibited their exploitation and development. Some other similarly situated deposits are in the Kota-Bundi area, and near Sojat (Rajasthan), Jaggayyapeta (Krishna district, A.P.), and other localities.

There are several areas where good quality limestone has been found, and in some cases investigated in detail, but cannot be utilised now because of difficulty of access. An example is the belt along the Sone river in the districts of Mirzapur (U.P.) and Shahabad (Bihar), but the terrain is such that construction of a railway line is likely to prove difficult.

Although some areas are quite distant from railway lines, it is desirable to construct cement factories on the limestone deposits occurring there purely from the point of view of development of the territories and local economics. The Cherrapunji cement factory is situated over 100 kms. away from the nearest rail head, but it meets the needs of the Shillong area for which, before its construction, the nearest source of cement was in western Bihar, a distance of over a thousand kilometres by rail and road. The cement plant at Wuyan, near Srinagar (Kashmir) is another example of an industry established to cater to local needs, although the area is very far from railway. Limestone deposits in the Garo, Khasi and Jaintia hills could similarly be utilised for manufacture locally by cement, although inaccessible by rail. Interestingly, some of these deposits occur close to coalfields which would be an added attraction. There are some other deposits which occur too far from rail-head but are situated in areas where the supply of cement is from great distances.

A few cement factories in this country are using very high grade limestone, which is of flux quality. It is necessary to conserve such limestone because reserves of flux-grade

stone are not vast, particularly of S.M.S. grade. There is shortage of such limestone to meet the requirements of the existing steel plants, and with the projected expansion of the existing steel plants and new ones coming up in several parts of the country the problem is likely to become more acute. An answer to this problem is to locate alternative cement-grade stone deposits near such cement factories.

Some of the limestone deposits have a thick pile of cement-grade stone sitting on top of flux-grade limestone, as at several localities between Satna and Rewa (M.P.). A vast quantity of lower quality (but cement-grade) stone has to be removed before the flux-grade limestone can be mined, but this would make the flux-grade stone prohibitively expensive. Such deposits, in my opinion, should be placed on high priority for setting up of cement factories, in order that flux-grade stone may be obtained economically after the overlying cement-grade has been mined for making cement. To achieve this it may be necessary for Government to give special facilities and to persuade companies in the private sector and Cement Corporation of India to set up new factories on such deposits, making a condition of the licence that the flux-grade limestone would be exclusively conserved for the steel industry.

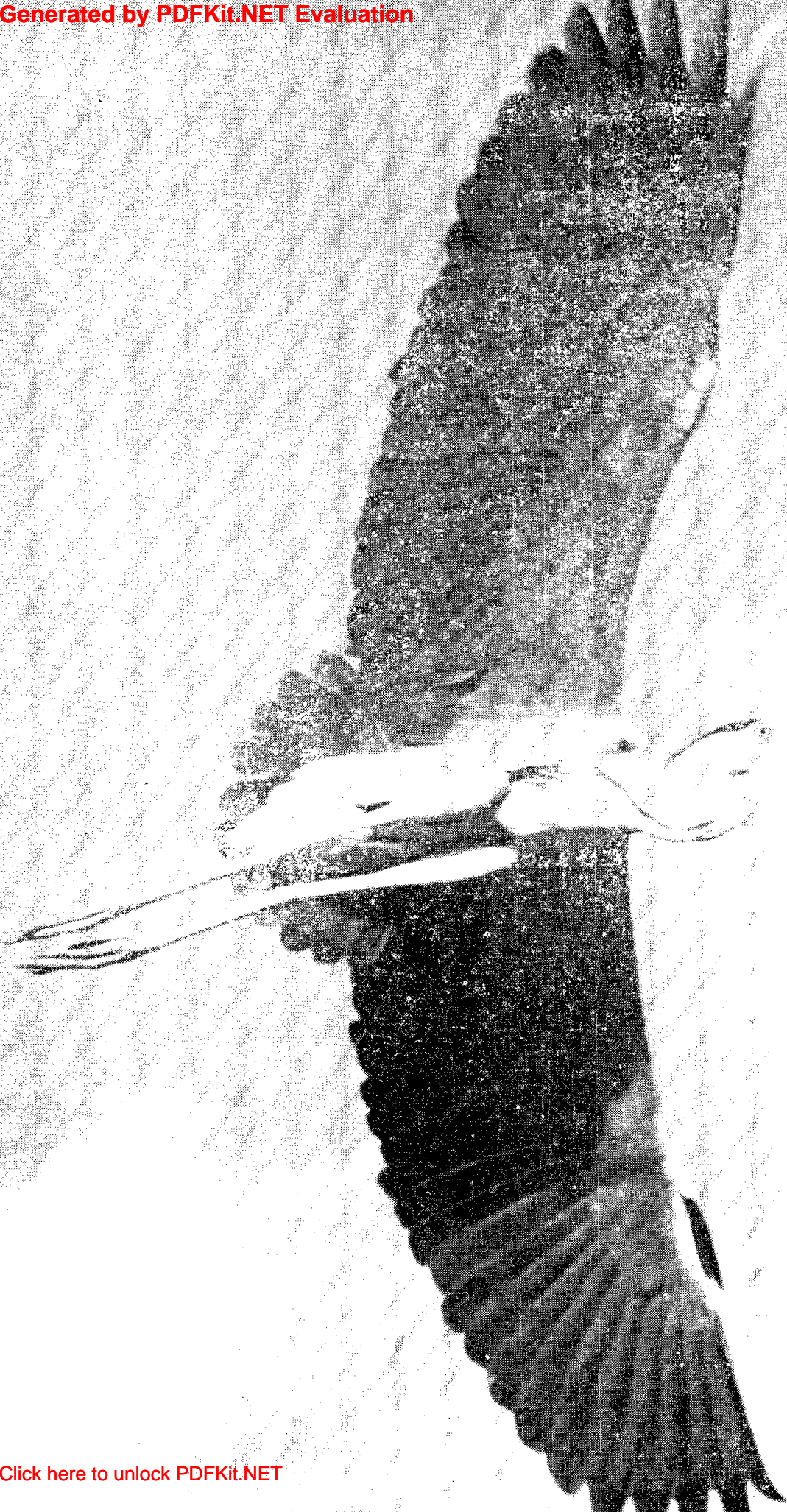
CEMENT INDUSTRY

(Continued from page 30)

capacity of 12 million tonnes during the Fifth Plan, involving a total investment of Rs. 5400 million including a foreign exchange component of Rs. 1800 million. Suitable finance and credit facilities would be needed for timely implementation of the expansion programmes. This additional capacity will provide employment to 35000 personnel including supervisory, skilled and unskilled labour.

But to create that potential, cement manufacturers have to come forward to utilise low-grade limestone in comparatively deficit areas. The Government's strategy to locate new plants in the deficit areas fully conforms to the present day needs.

The industry is already on the threshold of the take-off stage. Endowed with rich raw material resources, skilled manpower, know-how and above all the climate to go ahead, there is no reason why it should not reach the level of self-sufficiency and later produce enough surplus for exports. □





GREY HERON

GREY HERONS feed and breed along cold, rocky sub-Himalayan rivers, and the tanks and streams of Kanya Kumari; they are there in Gujarat and Rajasthan and in the creeks and marshes of the long eastern coastline. And it is not only all over India that one can find them—they are also well known in England and other European countries, in Siberia and in Japan. Most birds belong to a country or to a region (migrants, naturally, are exceptions) and even when a genus is widely distributed over several countries, its regional species are distinctive—not many have the vast and varied range of the grey heron, and its regional subspecies are so alike as to be almost indistinguishable.

Except when breeding (in mixed heronries) it is an unsociable, solitary bird, lanky and grey and unmistakably a heron, all legs and wings and dagger bill, with a chain of black streaks down its long, kinked neck and a black topknot which is thrown up into a crest when it lands



from flight or is excited. It haunts marshes and secluded waters, both saline and fresh, wading or standing stockstill in the shallows, waiting, waiting with inexorable patience for a fish or a frog or other small fry to come near enough—a lightning jab of the bill at the end of the suddenly extended neck, and the heron has caught its prey (or missed it!—it misses, in spite of the speed of its thrust, at times). When it moves through the water it is the embodiment of stealth; the body is held

horizontal, and a leg is slowly withdrawn from the water and extended by degrees and then inserted into the water again without stirring a ripple, the weight of the body is transferred to the advanced leg, and then the other is pulled up equally carefully and slowly. A very old Tamil poem describes the grey heron hunting: “not to alarm the fish, slowly, ever so softly, the heron advances its legs, like a thief in the night.” Being such a widely distributed bird, it also figures in the old poetry of many other languages.

In flight, too, the heron is unmistakable. The expansive wings are hollow, like sails filled with the wind, and their action is easy and leisurely, almost lazy—a deceptive action, for the bird is capable of swift and sustained flight, and can turn and jink dexterously in the air. It has only one call, a harsh, long-drawn ‘craaank’, sounded usually from the air, especially when it takes off in alarm, but this is seldom heard, for the heron is silent as well as solitary. □

AT OUR OWN EXPENSE

Ramu : American spacemen are called Astronauts and Russian spacemen are called Cosmonauts. If we send up a spaceman from Thumba, what will he be called?

Gopal: Cocoman?

—Kerala Kaumudi
(Malayalam), Trivandrum.

(READERS of language journals are invited to send in jokes like above, with a typical Indian flavour.

—Editor)

DEMOCRACY

DEMANDS

DISCIPLINE

Yojana QUIZ

1. The largest mechanised iron ore mine in Asia is at (a) Khetri in Rajasthan, (b) Bellary in Karnataka, (c) Bailadila in Madhya Pradesh.
2. "Broken Wing" was written by (a) Sarojini Naidu, (b) John Keats, (c) Rabindranath Tagore.
3. Calcutta, Bombay and Madras Universities were established in the year (a) 1911, (b) 1857, (c) 1899.
4. What is 'Operation Hardrock' programme?
5. The first telegraph line was introduced in India in the year (a) 1865, (b) 1905, (c) 1920.
6. Harisena was (a) A leader of Haryana, (b) A courtier of Akbar, (c) The poet Laureate of Samudragupta.
7. How many spokes are there in the Ashokan Wheel on our National flag? (a) 20, (b) 24 (c) 36.
8. Rihand Dam is in (a) the Punjab, (b) Himachal Pradesh, (c) Uttar Pradesh.

9. The Manali Fertiliser Plant is in (a) Himachal Pradesh, (b) Tamil Nadu, (c) Bihar.

10. The number of cinema houses in India is (a) 8,734, (b) 7,720, (c) 5,550.

11. Decipher the abbreviations (a) ASEAN (b) SALT, (c) IDA.

12. The Mettur Dam is built across the river (a) Krishna (b) Cauvery, (c) Godavari.

ANSWERS

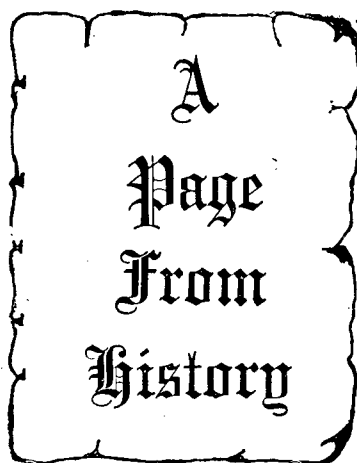
1. The Bailadila Iron Ore Mine in Madhya Pradesh is the largest mechanised iron ore mine in Asia. It was inaugurated on 10 November 1968. 2. Sarojini Naidu. 3. 1857. 4. To accelerate the search for base metal deposits in the country, the Government of India launched airborne geological surveys, 'Operation Hardrock' in 1967. 5. 1865. 6. The Poet Laureate of the Samudragupta. 7. 24. 8. The Rihand Dam is across the river Rihand near the village Pipri in Mirzapur district in Uttar Pradesh. 9. Tamil Nadu. 10. 8,734. 11. (a) Association of South-East Asian Nations, (b) Strategic Arms Limitation Talks, (c) International Development Association. 12. Cauvery.

PATALIPUTRA

SOUTH of the Ganges was an old city above 70 *li* (about fourteen miles) in circuit, the foundations of which were still visible although the city had long been a wilderness. In the far past when men lived for countless years it had been called "Kusumapura city" from the numerous flowers (*Kusuma*) in the royal inclosure (*pura*). Afterwards when men's lives still extended the millenniums the name was changed to "Pataliputra city". Once on a time a very learned brahmin had a large number of disciples. A party of these on a certain occasion wandered into the wood, and a young man of their number appeared unhappy and disconsolate. To cheer and amuse the gloomy youth his companions agreed to get up a mock marriage for him. A man and a woman were chosen to stand as parents for the bridegroom, and another couple represented the parents of the imaginary bride. They were all near a *patali* tree*

**Bigonia Suaveolens*, or Trumpet-Flower Tree.

Yuan Chwang's Account of its Origin



YUAN CHWANG: 'Records of Western Lands of the Great T'ang Period'; Reprinted from "On Yuan Chwang's Travels in India", (AD 629-645) By Thomas Watters, MRAS; Royal Asiatic Society, Lond. Page 87, Volume II.

at the time, and as the name of the tree had a feminine termination they decided to make it the bride. All the ceremonies of a marriage were gone through, and the man acting as father of the bride broke off a branch of the *patali* tree, and gave it to the bridegroom to be his bride. When all was over, and the other young men were going home, they wanted their companion, the bridegroom, to go with them, but he insisted on remaining near the tree. Here at dusk an old man appeared with his wife and a young maiden, and the old man gave the maiden to the young student to be his wife. This couple lived together for a year when a son was born to them. The student, now tired of the lonely wild life of the woods, wanted to go back to his home, but the old man, his father-in-law, induced him to remain by the promise of a properly built establishment, and the promise was carried out very promptly. Afterwards when the seat of government was removed to this place it got the name Pataliputra because it had been built by the gods for the son of the *patali* tree, and it kept the name ever since. □

Blindness in the Third World

RAJENDRA T. VYAS

COLD statistics tell us that the world today shelters 16 million sightless people.

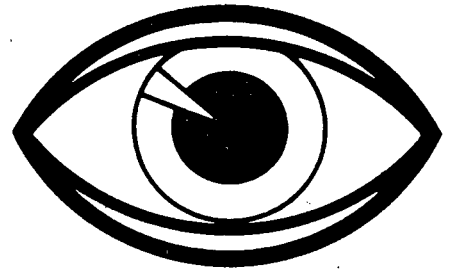
Strange though it may seem, blindness affecting people in the developed countries is different from that in the developing world. Those in the former category are blind mainly from causes beyond control. By contrast, 50 to 80 per cent of the blind people in the developing countries owe their blindness to causes which are either preventable or curable. Trachoma, which is both preventable and completely curable if treated in time, affects 400 million people in the developing world. Each year in India, 15,000 children go blind before they reach their sixth birthday as a result of vitamin A and protein deficiency. About five million people are blind from cataract which, incidentally, takes only three minutes to remove by simple surgery for the mere cost of Rs 35.

Madhav Rao, 27, has been blind since early childhood. Since he was born of rich parents, everything possible was done to restore his sight, but to no purpose. His parents were advised by friends to send Madhav to a school for the blind. "My child is already blind. God has given us enough", said the mother. "Why should Madhav go to school at all? He should learn music and say prayers". Madhav was keen to go to a school for the blind. But the parents thought otherwise. The principal of the school for the blind was requested to speak to Madhav's parents, but the father, an educated banker, could not be persuaded. So a music master was employed, and Madhav did not enjoy the benefits of all-round schooling. Later, he met Krishna, a teacher in a school for the blind. Krishna, despite his blindness, graduated from the univer-

Dr Vyas is the Regional Officer of the International Agency for the Prevention of Blindness in Southern Asia, Bombay, and President of the Blind Men's Association of India.



**FORESIGHT
PREVENTS
BLINDNESS**



WORLD HEALTH DAY, 7 APRIL 1976

sity, married a fellow college student and set up his own small family. Today he leads a full life, as against Madhav's boring and limited existence. Many a well-meaning parent, out of sheer ignorance, deprives the handicapped child from receiving education, thus jeopardizing the child's future.

Seven-year-old Shanti became blind, through no fault of her own, when she was one year old. She developed diarrhoea which drained her system of whatever little nourishment she got from a morsel of food composed of bits of bread made out of jowar—a low quality food-grain, a pinch of salt and some chilli powder. No green vegetables and no milk were on her diet. Continual malnutrition caused vitamin A and protein deficiency; Shanti developed xerosis, and lost her sight. A cupful of green vegetables a day was all that was required to prevent Shanti from becoming blind! She now lives in a small village in Gujarat. Her father Ramu Patel, a farm labourer, has a daily income of Rs 2, barely adequate to sustain a family of five. Blindness is a curse in the developing countries—and more so

when the victim is a female.

For 10-year-old Islam living in a crowded street of Dacca, life is a little different. His face is impregnated with marks of smallpox, a disease rarely known in the western world in recent times, and this led to his blindness. Islam's father Akbar ekes out a pitiable existence by hawking tit-bits on a busy thoroughfare of Dacca. On a lucky day he brings in an income of four takas (about four rupees) to feed his family of seven children. Islam's blindness is doubly unfortunate, for if Islam were sighted he would have been a source of additional income to the family. Intelligent and vivacious, Islam pleaded with his father to send him to the school he now regularly attends.

In spite of the overall gloomy picture, instances abound of blind people who have succeeded in overcoming their handicap and have become contributing members of society. For instance, Benjamin teaches in the picturesque town of Kandy in Sri Lanka. He has been fortunate in receiving education at Sri Lanka's oldest school for the

THE WOODCUTTER AND THE MONKEY

ONCE upon a time there lived near Varanasi a woodcutter and his wife. The woodcutter was very civilized but his wife was a holy terror.

She sat around the ghats and gossiped the whole day without doing any work while her husband sweated it out in the wood. In the evenings he came back home after a hard day's toil in the wood, only to be send back by his wife to fetch rice and other wherewithal for the night's repast.

It used to happen every evening. One day, it occurred to the wood-

cutter that he might outwit his wife. He thought about it and hit upon the plan of buying rice and vegetables on the way back home itself. The cunning strategy, he reasoned with him self, would leave his wife speechless.

But, as it turned out, it was an unlucky day for the woodcutter. In his absence during the day his wife's sister and her six children had arrived at their house to spend the weekend with them.

The stuff brought home by the woodcutter, it turned out, would not suffice for all.

And the woodcutter's wife said that he had done it on purpose. Every day, she said, it was his custom to ascertain the needs of the home and then visit the market to buy the day's needs, save on this day when her relatives were visiting with them.

She said he had done it on purpose to humiliate her.

No amount of explaining on the part of the woodcutter would appease his wife.

She said she had already gone to the market and had bought the day's needs and there was no need for him to go and squander money.

And what was more, her sister and all her children abhorred and loathed brinjals, the vegetable the woodcutter had brought home that day.

She threw the brinjals into the Ganges.

Whereupon, the woodcutter left the house and went back to the wood. Sad and disheartened, he wanted peace and quiet.

In the wood it was dark and the woodcutter lost his way. After wandering about a great deal, he fell asleep under a tree in a strange part of the wood.

When he woke up in the morning, the woodcutter heard strange and surpassing queer noises coming from the tree.

He saw it was a huge monkey.

The monkey came down from the tree and introduced himself. He said he was the President of the Monkeys in that part of the wood. He asked the woodcutter whose President he was.

The woodcutter said he was simply a woodcutter who had ran away from home and had lost his way. The Monkey president asked him the



blind, going on to university, and earning a university degree which enabled him to get the job of a teacher in a school for the blind.

Another instance is that of Gopal, who is employed as a telephone operator in a charitable hospital in Bombay and operates with ease and efficiency the switchboard that he cannot see.

B. Boran cultivates a two-hectare farm in the lively Ootacamund hills in Tamil Nadu. He was trained in agricultural and rural pursuits at the Agricultural Centre for the Blind near Bombay. He is one of the 2,000 blind farmers trained and resettled with the help of the Royal Commonwealth Society for the Blind.

Ramesh Trasi became blind while serving with an airline. The future seemed to him dark and sombre. How would he maintain his wife and children now that he had lost his job? A friend advised him to go into insurance work. Ramesh has made great headway and is now a successful insurance salesman.

Some blind people have also made their mark in learned professions and vocations. Lal Advani became blind when he was ten years old. Today he holds an important position of a civil servant with the Government of India.

Blindness may even strike an ophthalmic surgeon. It did so in the case of Dr. R. Krishnaswamy. Undaunted, he took up this challenge and recently retired after 20 years of service as a successful sales manager with a large pharmaceutical concern.

The Braille script, the tape recorder, and now the reading machine have narrowed down the limitations which blindness imposes on people. Blind people have shown that they can become teachers, preachers and professors, scientists solicitors and judges, administrators and members of parliament.

The march towards progress and prosperity is naturally slow in the developing world but, thanks to the awakening of interest among governments, the cause of the blind is receiving attention. The World Health Organization, the World Council for the Welfare of the Blind, the Royal Commonwealth Society for the Blind, the International Agency for the Prevention of Blindness and its affiliates are all initiating measures to halt the onset of blindness, and seeking to ensure that the blind are not deprived of their rightful share of human happiness and fulfilment. □



cause of his unhappiness. The woodcutter told his story.

His trouble, the monkey whereupon told the woodcutter, was that he had no one to confide his troubles

to. He ought to acquire, the monkey told him, a telephone and ring up his friends with his troubles whenever he had troubles. It was less trouble than going to the wood or to a

psychiatrist.

The woodcutter said it was out of the question. Telephones, he said, had not been invented then.

The monkey said that was but true; but there was another suggestion the woodcutter could consider: It was his privilege as President, the monkey said, to call a meeting of all the fellow-monkeys whenever the need arose. The woodcutter could gladly have his (the President's) permission to address them with his woes.

And so it was arranged.

They went to another part of the wood where there were ruins of a lost palace. All the monkeys soon assembled in the throne-room, the President and the woodcutter sitting upon the platform where the throne of former kings had rested.

The woodcutter then told his troubles to all the assembled monkeys. At every turn of his story, the monkeys made sad noises and queer faces.

And that is why even today you find monkeys in Varanasi making sad noises and queer faces.

MORAL: Do not monkey with your wife; ask her before you bring home the brinjals. □

QUOTATION BOX

Poverty is the greatest obstacle in the way of progress. We have to provide opportunities which will unlock talents within each individual.

India cannot afford to have irrigation engineers who cannot repair leaking taps in their own homes.

Ours is not an ordinary country. The challenges before us are not ordinary challenges. We must remake India, not in the image of any other country but to enable us to add something to the sum total of human experience as we have been doing throughout our long history.

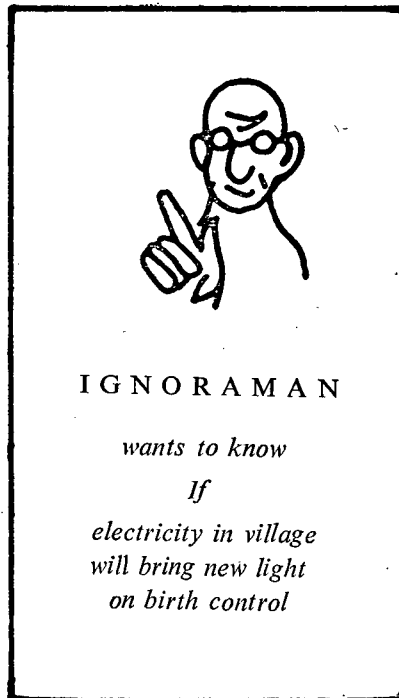
—Indira Gandhi

Computers are very temperamental and like young ladies they have to be coaxed; otherwise they might go wrong.

—Harold Macmillan

Morally the human race is yet at the infantile stage. Its mind is ruled more by passion than by reason. So while man's reason has been inventing new things, his heart has remained undeveloped.

—V.S. Khandekar



IGNORAMAN

wants to know

If

electricity in village
will bring new light
on birth control

The former President (Mr Nixon) is shrewd enough to know that he will be approached, perhaps informally; that will be the moment of his greatest satisfaction since Watergate.

—The Statesman

I alone cannot bring miracles. I am a humble worker.

—N.D. Tewari

The concept of diplomacy dates from the days when the world was seen as divided between us, the British, and them, the wily foreigners, who could not be trusted. It traditionally consisted of two main skills; being nice to people you do not like and knowing how to handle greasy foreign chappies.

—The Times

Friendship is much more of a temptation than bribery.

—Alan Watkins
in The Observer

Mere knowledge of law does not give a judge an idea of the requirements of society. A legislator who is elected by the people and who moves with the people is in a far better position to understand their aspirations and requirements and act accordingly.

—D.K. Barooah

BOOKS

Assorted Essays

Essays in Contemporary Economics. Edited by P. V. Jain and D. N. Chaturvedi; Vikas Publishing House, New Delhi (1975); Pages 292; Price Rs. 45.

ECONOMICS today is a battered science. Its aims, uses, degree of success, its chosen methods, what is more even its validity is in question. The evergrowing inequality between nations, and sections of people within nations together with the failure of the affluent to find happiness has put the economist as a whole in the dock.

Economists have made assumptions about man's intentions in the economic sphere and then rationalised from those premises in a manner that these intentions are satisfied. But what if these assumptions about basic intentions of man are wrong?

Self-questioning has been prescribed for men by all the sages and in all ages of history. It is to the credit of Professor J. K. Mehta of Allahabad University, whose voluminous contributions have received world wide attention to have prompted the economists into a bit of self-questioning.

Professor Mehta has ventured into a field which was unexplored by most of the western economists. While the western thought confined itself merely to choices between alternative goods and services by and large it ignored the possibility of rationalising the wants with a view to achieving maximum happiness. It is his contention, therefore, basic intentions of man thus are not a matter of statistics.

In proposing wantlessness as one of the value judgements to achievement of maximum social welfare, Professor Mehta has been accused of waking up Buddha and Sankara from their graves to inject spiritualism into economics. However, it has to be pointed out some of his ardent admirers, are from the West.

Of the 24 Economists who have contributed to the collection of essays published to honour Professor Mehta, half a dozen are from America and Europe. Particularly worth mentioning is the contribution of Texas University Professor H. H. Liebhafsky's "Marshall's Constancy Assumption and Dependent Marginal Utilities"- a tribute to the "sober

and penetrating ideas" of Professor Mehta "a scholar of much critical ability and whose knowledge ranges a great deal".

In this book, an assortment of pure economics, applied economics and in some cases non-economics, there is one article that should be of special interest to the readers of YOJANA

In his "Critique of Planning in India" V. B. Chuge of Shivaji University, Kolhapur attributes the emergence of sectoral imbalances and cost price distortions to planning 'big' with inadequate resources. Synchronisation of the Five Year Plan formulations with that of the general elections also have a disastrous effect both on plan formulations and its subsequent implementation. Real logic of planning is impaired by the populist panacea promised without mentioning the costs. The overdraft happy state governments who want to have big plans without the accompanying responsibility of raising the resources also contribute their share to the snags in the plan formulation. According to him, infrastructure which was given overwhelming importance in our plans (60 per cent) has gone under-utilised.

The vested and well entrenched

groups in the community have managed to distract the political executives from administering the developmental schemes efficiently. Extravagance in using the public money and the uncalled for expansions of the official paraphernalia contributes to unproductive expenditure in public administration.

His comments, however, on black money, inflation, and the lack of political courage have been happily outdated by the recent developments in our economy.

The essay by Vivian Thomas of the University of St. Andrews on the Soviet System of Planning is an exercise in comparative economics. Extremely topical and to some extent controversial is a contribution by D. K. Shrivastav of Allahabad University "The Case and Evidence of for Interfering with Free Trade in Developing Countries."

The earlier part of the book is rightly devoted to a closer scrutiny of Professor Mehta's Contribution to Economics. Professor Hajela of Punjab University points out that Professor Mehta has little or no answer to the challenge of poverty. "That the affluent individuals should minimise their wants while the vast majority of the poor should maximise them should sound simple enough". But are the affluent in the society going to develop appropriate moral postures in the foreseeable future?

—Augustine Veliath

Useful Data on Spinning

Management of Cotton Spinning Industry. Published by Management Development Institute, New Delhi; First published January 1976; Pages 238; Price Rs. 15

THIS publication contains papers presented at the two management training programmes held in the first half of 1975 for senior executives of the cotton spinning industry (cooperatives and others) including synthetic yarn production. It also covers the proceedings of the first seminar and some selected addresses at the second one. The M.D.I. is to be congratulated for bringing out this useful publication which throws abundant light on the financial and other management problems and situations of the industry.

It is said that management of the cotton spinning industry involves a high degree of managerial skill, particularly because it is sandwiched between the grower and the users of

yarn, power-looms and the textile mills. Somehow, hitherto, the managers of this industry had tended to develop speculative skills while neglecting the essential factors of management.

Different authorities and participants at the seminars expressed views on various facets of the industry and their observations do reflect the kind of practical approach that is much needed in seminar discussions. A.G. Kulkarni believed that the cooperative spinning mills had a special role as catalysts for socio-economic development of the rural areas. He contended that managers lacked the art of delegation of power and formulated their decisions more on hunches than on any sound rationale. He called for the development of professional management in the industry.

An evident feature of the industry has been low capacity utilisation as

Agrarian Studies in India

it has been working at 75 per cent of the installed capacity. Another managerial problem arises due to the dispersal of the industry in the decentralised sector. Cooperative efforts between different constituents of the industry are limited to the capital structure of the spinning mills when they should really permeate the entire structure—managerial, technical and human.

Dr. B.K. Madan points out that the share of handlooms and powerlooms has increased from 25 per cent to 50 per cent in the total cloth production in the country during the last two decades. The Fifth Plan envisages a programme of installing 1.5 millions of spindles estimated to cost Rs. 2600 million. This means setting up of 60 spinning units of approximately 25,000 spindles each.

It was suggested by participants that the financial institutions should provide loans on the basis of debt-equity ratio of 2:1 instead of the existing basis of 60:40. It was also the consensus that the repayment of term loans from financial institutions should be 20 years including 5 years of gestation period. It was also considered necessary to improve the commercial viability of cooperative spinning mills by economising on every front.

There is a learned paper by N. Srinivasan on product-mix in the spinning sector and he devises mathematical formulations for profit maximisation through product-mix planning. Another paper on sale of yarn indicates that efficiency of technical operations can influence profitability only upto a point. An analysis of six top ranking mills of south India shows that, given a level of efficiency, their gross profits varied from 13 per cent to 30 per cent on account of changes in purchase and also policies.

The book gives useful economic data on the spinning industry of India. It is a time publication to be taken advantage of by managers of other industries as well.

—Navin Chandra Joshi

**DEMOCRACY
DEMANDS
DISCIPLINE**

Land Reforms in India—Trends and Perspectives by P.C. Joshi; Allied Publishers New Delhi; Pages 181; Price Rs 15.

LAND REFORMS in India has been a subject of great socio-political significance. Governments and political parties committed to social and economic justice to all appointed, from time to time, several committees and commissions to study the problem. These bodies have made recommendations which reflected the economic philosophies professed by the bodies concerned. And governments did initiate some action to solve the agrarian question. However, due to a variety of reasons hardly any ground has been covered. Prime Minister Indira Gandhi's 20-Point Economic Programme, therefore, lays stress on the speedy implementation of land reform measures in order to secure justice, expeditiously, to weaker sections of society.

In this context, a book on land reforms in India evokes keener interest. However, the purpose of this book is different. Dr P.C. Joshi of the Institute of Economic Growth (Delhi) who made this study at the instance of the Indian Council of Social Science Research, confined himself—within the scope of the twin disciplines of economics and sociology which are his cup of tea—to a study of the development of scientific

knowledge in the field of land reforms in India and how the knowledge has been ideologically conditioned. He has emphasised the need for an inter-disciplinary approach for the study.

Part One of this book, covering 117 pages, deals with the study of land problems in the pre-independence and post-independence setting, discussing a variety of topics like, the origin and professionalisation of agrarian studies, agrarian reconstruction and the processes and patterns of modernisation, its impact on economic development and evaluation of land reforms. The part concludes with an exploration of the less explored areas in agrarian studies. Then follows theme-wise and region-wise bibliography covering over 60 pages.

Coming at a time when leadership means business and deadset to achieve the targets by the stipulated time, Dr Joshi's study can be expected to serve to promote greater understanding of the complex issues involved among the people. Even the policy-makers may benefit by this perceptive study.

A welcome and useful book, well got up and neatly printed. The addition of index would have greatly enhanced the immediate usefulness of this research paper.

—V. Patanjali

A Memorable Tenure

Selected Speeches of Lal Bahadur Shastri. Published by Publications Division, Ministry of Information and Broadcasting, Government of India, New Delhi; Pages 364; Price Rs 13.

LAL BAHADUR SHASTRI was India's Prime Minister for a brief period of 19 months, from June 11, 1964, to January 10, 1966. But it was a memorable tenure during which Lal Bahadur Shastri established himself firmly as a great national and international leader. This memorable tenure was terminated abruptly by the icy hands of death in his greatest moment of glory, only a few hours after he had signed the historic Tashkent Declaration (January 10, 1966)—the testament of India's abiding faith in peace, especially with Pakistan.

"He was a little great man whose

education and background were completely Indian. And yet destiny cast him in a mould which has few parallels in our modern times", said Dr. Zakir Hussain in his tribute to Shastri.

This volume under review contains 137 selected speeches of Lal Bahadur Shastri as Prime Minister, including his first broadcast to the nation on June 11, 1964, after being sworn in as the Prime Minister of the country, and his last talk with Indian newsmen in Tashkent on January 10, 1966. *Selected Speeches of Lal Bahadur Shastri*, in a forceful and vivid manner, brings out his qualities of statesmanship and mass appeal. It gives the reader insight into his thinking on numerous national and international issues.

The book is divided into three sections. Book one, running into about 200 pages, deals with the

In 1947 India's most useful tools were her hands.

Machine tools are the basic tools that make possible the fabrication of machines and plants. They enable industry to do its basic function — manufacture goods whether intermediate or finished.

In 1947 India's machine tool industry was in its infancy. Simple lathes and drilling machines were all that India made. The real growth in the machine tool industry began during the

First Five Year Plan. Not only did the machine tool industry grow in value, its technical expertise, its sophistication and range of products grew as well. Today she makes complex machine tools such as multi-spindle and sliding headstock automats and machining centres. The needs of industries such as automobiles, aeronautics and industries producing for the defence services

are today met by indigenous manufacture.

With our growing technical expertise for designing and fabricating sophisticated machine tools in India, we were able to reduce imports and build up machine tools export surpluses. These have earned us Rs. 370 million. While in the last ten years, our machine tools industry has grown to the value of Rs. 830 million.

Today a vital machine tools industry forms the nucleus of all manufacture

Growth of Machine Tools Production at a glance

Year	Production Rs. million	Export Rs. million
1950-51	3	Nil
1960-61	70	1.5
1970-71	430	27.9
1973-74	680	36.9
1974-75	900	45.0

The machine tool industry is just one story of India's progress. There are many others in different fields. India today has built an industrial base which is shared only by a handful of nations. Grindlays are proud and happy to be associated with India's industrial progress.



ASP/R 376/44 C

national affairs—State policy, economic development, food problem, official language, public administration, national solidarity, education and culture, mass media, a nation in transition and Shastri's mentors Gandhi and Nehru. Book two, covering about 80 pages, focuses attention on India and the world—elements of foreign policy, our neighbours (Ceylon, Afghanistan and Nepal), relations with China, a pattern of global cooperation (India's relations with Kuwait, Egypt, United Kingdom, France, resurgent Africa, Czechoslovakia, Canada). In this section a separate chapter is devoted to deep-rooted Indo-Soviet friendship (speeches made by Lal Bahadur Shastri on various occasions during his stay in the Soviet Union in May, 1965). Book three is devoted to India and Pakistan—conflict in the Rann, war in the valley, cease-fire and after. The book provides an interesting study of the dynamic and variegated personality of Shastri who gave to the nation the slogan "Jai Jawan, Jai Kisan." The book is suitably illustrated with black-and-white photographs.

—Pritam Lal

Revised and Enlarged

Mathematics for Economists by B.C. Mehta and G.M.K. Madhani, second edition; Sultan Chand & Sons, New Delhi, 1975; Pages xii+436; Price Rs 15 (students edition).

THIS second edition of an earlier important text book (1975) bears the marks of thorough revision and slight enlargement of chapters dealing with matrices, input-output analysis, linear programming, economic application of differential calculus and equations. The addition of elementary trigonometry and coordinate geometry has enhanced the value of the book for the trainees in this field. The index on mathematical terms and tools along with the listing of economic applications render the book indispensable for all users with prior knowledge of economic theory. The Publishers have done an excellent job of production in flawless symbols and at a price that is suited to the students pocket.

B.N.N.

The Banana and Its Powder

Rural Industrialisation: India's experience and Programmes for Developing Countries by O. P. Jain; Commercial Publicity Bureau, New Delhi, 1975; Pages xv+316; Rs 75.

THE general perspective on rural development policies with which the author introduces the reader to the principal contents of the book, apart from the preface itself, is to improve on the economic imbalances that have resulted in most countries, particularly India, as a painful legacy and sometimes paradoxes of their adherence to the capitalistic path of development. Hence, rural industrialisation is treated as a component of integrated industrial development with the appropriate choice of location, the use of techniques, identification and promotion of rural entrepreneurship and last but not the least, the institutionalisation of production assistance. Let us recall that this is an area in which, there has been a minor 'knowledge explosion' that has left a lot of redeemable fall-out for enterprising authors in India to garner in book form.

The narration of India's experience in Part II is useful for the separate treatment of rural electrification as the *primum mobile* to promote rural industries within the matrix of integrated area development. The section on rural industrial estates is informative though not critical, of its flaws. Part III on 'programme essentials' deals with the methodology for regional delineation followed by the classification of rural industrial patterns into five groups, viz., (i) proximate availability of primary resources (ii) the existing industrial pattern of the region, (iii) the scope for rural sub-contracting, (iv) the decentralisation of congested industrial complex in metropolitan suburbs (e.g., Bombay, Delhi & Calcutta) and (v) integrated area development patterns. There is also a section on project planning and evaluation (pp 235-288) based largely on the experience of the office of the DCSSI and its branches. There is no indication in the book whether the author is seized of the rationale of different approaches in this field, say the UNIDO approach with the Little-Mirrlees Method. It is also unlikely that all the industries listed in the book satisfy the criteria of a positive net present value, positive net benefit-cost ratio and a higher internal rate of return.

The promotional strategy outlined by the author is the familiar action-oriented theme on which there has been, by and large, national as well as international consensus with a continuous trend of discussion based on specific issues. Its chief elements are: (i) the provision of concessional and easy finance, (ii) advice on developmental technology, (iii) management and organisational efficiency, (iv) marketing aid through special institutions, (v) the offer of fiscal and non-fiscal incentives to entrepreneurs, (vi) the involving of international assistance from World Bank, I.D.A., F.A.O., U.N.I.D.O., I.L.O. and similar agencies.

The spectra of policies and programmes dealt with by the author, albeit in all sincerity of purpose and in a spirit of intellectual middlemanship conveys the regrettable impression that more bananas rather than the golden juice with a high sugar content has flowed out of the mill! However, who could deny that bagasse is not a good raw material for a rural industry? The organisation of the material as well as its presentation might have been less laboured with greater care for style in prose and finesse in the warp and woof of theory blended with practice. The book is too highly priced for a mere condensation of official reports into a disjointed frame of an unintentional caricature at some places. With the careful rectification of these obvious flaws including numerous printing errors, poor index and inelegant typography, the recent book should serve the purpose of creating a better image of India's achievements and reaching out a larger readership of intelligent community in developing countries.

—B. N. Nair

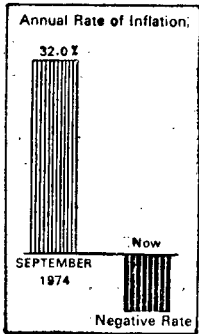
BOOKS RECEIVED

1. States of Our Union Manipur by R.K. Jhalajit Singh; Publications Division Govt of India, New Delhi, Price Rs 3.25.
2. Emerging Pattern of Economic Life in Punjab by Pritam Singh; Thacker & Co. Ltd., Bombay. Price Rs 45
3. Timely Step; Publications Division, Govt. of India, New Delhi; Price Rs. 1.00.
4. Second India Studies, Industry by Haman Ezekiel, Macmillan Company of India, Delhi; Price Rs. 8.00
5. The Disadvantaged pre-schoolers in Greater Bombay by Mandakini Khandekar, Somaiya Publications Pvt. Ltd. Bombay, Price Rs 60.00.

inflation contained

A Decade of Achievement

An outstanding achievement of the decade has been the reversal of the inflationary tide.



- Galloping prices have been a world-wide phenomenon.
- In India, the annual rate of inflation touched 32.0 per cent in September 1974.
- As a result of determined action by Government, a negative rate of inflation has been achieved. This is an Achievement of which every Indian should feel proud.

"The success in bringing down prices has greatly helped our working classes and those with fixed limited incomes."

—Shrimati Indira Gandhi



Development Notes

Low-Cost Gas Leak Detector

A low cost, sensitive instrument for detecting leakage of gases in industrial plants has been developed by the isotope division of the Bhabha Atomic Research Centre, Bombay.

The radioisotope trace gas analyser, as it is known, has already been successfully tried in detecting leaks in a hydrogen annealing furnace of a Bombay engineering firm.

The instrument has advantages like simple electronics, freedom from vacuum connections, lower cost, and ease of use for industrial leak detection over the conventional instruments.

It uses sulphur hexa-fluoride,

a chemically inert and stable gas, as the tracer. The high electron affinity of sulphur hexa-fluoride helps to detect the presence of this gas in an ion chamber where a steady electron current is maintained by means of tiny radio active source of tritium. Though it is not as universally applicable as the helium spectrometer leak detector, it has comparable sensitivity in systems where it can be used.

At present the isotope division is engaged in enhancing its sensitivity in order to develop a range of detection systems for sulphur dioxide, hydrogen sulphide and other abnoxious and dangerous gases.

Kudremukh Iron-ore Project

Iran has made an advance payment of \$ 100 million for the Kudremukh Iron-ore Project. The Centre is understood to have already made an allocation of Rs 1000 million for the project in the next year's budget.

The Kudremukh deal is stated to be the largest single project contracted so far with Rs 8000 million of investment in the current Plan itself.

According to the agreement finally signed the project has to be completed within four years. The exports of iron-ore concentrates to Iran are

to start from 1980. Iran will buy the entire production for a period of 15 years.

The project includes the expansion of the Mangalore Port through which the ore is to be exported. The entire project including the port expansion will be financed from the Iranian loan. The loan is to be repaid out of the sale of the iron-ore concentrates.

Iran was originally to have made available the entire cost of \$ 630 million. It looks now as if it will be phased out.

Modernisation of Industries in Punjab

An ambitious programme for modernising industry, to ensure production of quality goods, has been launched in Punjab, which is fast coming up on the industrial map of India. The programme which aims at providing modern facilities to manufacturers in design and production technology, envisages setting up of eight research and development institutions in the state at a cost of over Rs 100 million.

One of these institutions would be a Rs 10 million Research and Development Centre for Bicycles at Ludhiana on the pattern of Japan. Though the cycle industry of Punjab has managed to make a dent in the world market, yet the products continue to be of very old design, manufactured with traditional raw materials and with conventional and crude technologies. The proposed centre would assist the manufacturers in improving the quality of their products so as to make them popular in the world market.

Like cycle industry, sewing machines manufactured in this state are known the world over. The design and production methods of these products also continue to be outdated. In order to improve production technology, a Sewing Machine Development Centre at Ludhiana is proposed to be set up in collaboration with the Trade Development Authority. The National Council of Science and Technology is also expected to assist the project which is estimated to cost Rs 5.18 million.

As the local industries also suffer from lack of precision tools like jigs and fixtures. Rs 38.65 million modern tool room for the supply of precision tools is proposed to be set up. With alround development of small-scale industry in the state, the need for research and testing has acquired a great importance. Punjab Test House is proposed to be set up at Ludhiana at an estimated cost of Rs 3.5. mil-

lion. It will consist of six laboratories for chemical engineering, chemical testing, metallurgical, physical and electrical engineering and a general workshop.

A Rs 7.5 million Machine Tools Design and Development Centre would be established at Ludhiana for bringing about improvement in design and production technology in machine tools industry. Of the total of about 1,600 such units in the small-scale sector more than 1,200 are located in Punjab alone. This industry is contributing from low-priced medium precision to high-priced high precision machines for the development of other engineering industries in the country and abroad.

A Rs 20 million Knit-wear Development Project is proposed to be set up at Ludhiana to demonstrate advanced methods of winding, dyeing, moth-proofing and shrink-resis-

ting of yarns, as also modern methods of garment cleaning and pressing to the woollen hosiery knit-wear industry. There are about 2,000 units in the state which employ about one lakh workers.

A Hand Tool Design Institute costing Rs 12 million is proposed to be set up at Jullunder for providing consultancy service to small-scale units, undertaking training of technicians in designing and making jigs, fixtures tools and making available specialised common facility services to the manufacturers. About 20 per cent of such units are concentrated in the state. But the state lacks in proportionate number of large-scale medium units on which the small-scale engineering units could bank for supply of jigs, fixtures, gauges and necessary assistance for the flow of modern production technology.

More Coking Coal for Steel Plants

The average daily supply of coking coal to the steel plants during January was 38,600 tonnes, the highest ever. Compared to 33,600 tonnes during January 1975, it represents a 16.3 per cent increase in supply.

This substantial increase has been achieved as a result of the improvement in the production of coking coal to the mines and the operation of the washeries.

The stock of coking coal in

Bhilai Steel Plant, farthest from the coalfields and with the highest rate of consumption, is 1,53,400 tonnes (15 days' consumption), as against 40,600 tonnes during January 1975 (4 days' consumption). Similarly at Bokaro, Rourkela and TISCO the present coal stocks are equivalent to 13 days', 17 days' and 13 days consumption respectively compared to 3 days', 5 days', and 6 days consumption on January 1, 1975.

Third Leander for Navy

The third Leander Class frigate, INS "Udaygiri" built by Mazagon Dock Limited has been commissioned for service in the Navy.

The frigate, which is fully airconditioned, is fitted with the most sophisticated sonar, radar and radio communication equipment. It is somewhat similar in machinery and armament to the second Leander Class frigate, "Himgiri" commissioned in November 1974.

There are some modifications based on the experiences

of the Navy with the other two frigates.

The frigate, with a speed of 30 knots, has twin 4.5" gun mountings, two 22 mm Hispano guns, a three-barrelled anti-submarine mortar, two quadruple Seacat anti-aircraft guided missile launchers and one Alouette MK3 helicopter armed with Homing torpedoes.

There is a high degree of indigenisation in the sophisticated machinery and equipment of the antisubmarine frigate.

Protein Food

The Central Food Technological Research Institute, Mysore has achieved a breakthrough in the development of low-cost protein food and beverages.

The Institute has developed a low-cost protein food based on roasted wheat flour, Bengal gram flour, edible groundnut flour and jaggery. This ready-to-serve food, meant for children, contains fifteen per cent protein and provides about 380 calories for every 100 grams.

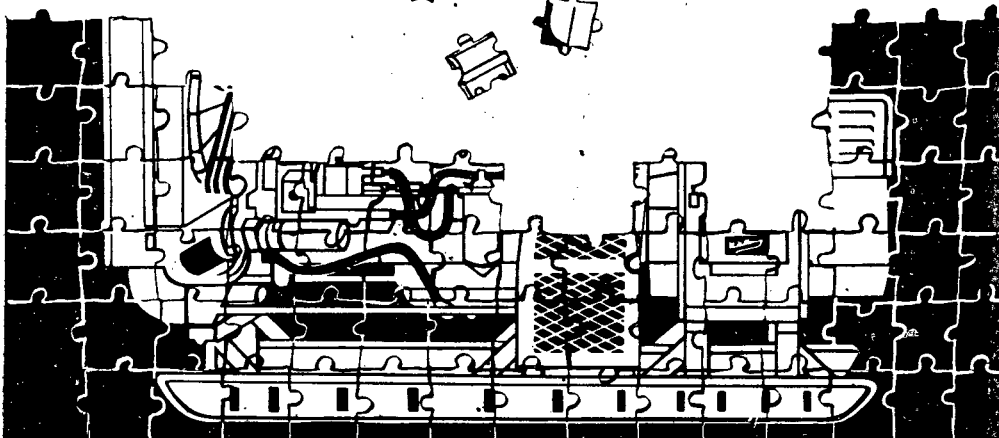
The Karnataka government

has chosen the product for its nutrition project in Chitradurga.

The Institute has also prepared a malted beverage in which milk has been replaced completely by high purity vegetable protein isolate.

An infant food containing fifteen per cent protein from milk and the rest from groundnut has been developed at the Institute. Feeding trials of the new infant food have been underway at several centres in the country.

a second trombay power plant



in 2080 pieces

2080 Generating Sets, using CUMMINS engines, supplied so far, produce power equal to Trombay.

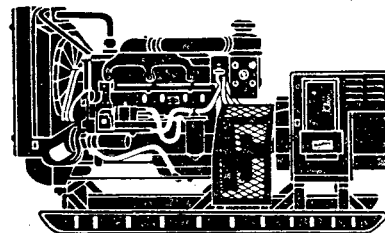
In 1972 the Government granted licences, (worth millions of rupees) for generating sets imports.

But few generating sets have arrived ... while our engines for Generating sets have come out in force, saving over Rs. 100 millions in foreign exchange.

That's a Second Trombay ... in 2080 different places ... so you can lick power shortages.

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PRATIBHA 755

VOL. XX/6

15 APRIL 1976

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Mandatory FP -
Students' Forum

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Heavy Engineering

•
Door Darshan

A Progressive Measure with Vast Implications

URBAN LAND CEILING ACT

Its success depends on the spirit with which it will be implemented

M.S.A. RAO

The Urban Land (Ceiling and Regulation) Legislation recently passed by the Parliament marks another distinct step in the direction of reducing glaring inequalities. The Act provides for a graded ceiling on ownership and possession of vacant land in urban agglomerations. Classifying the cities into four categories, it restricts the plinth area of dwelling units to be constructed to 300 sq. m. in A and B classes of cities and to 500 sq. m. in C and D classes of cities. The Act covers in all 74 out of 142 cities: 4 in A, 5 in B, 36 in C and 29 in D class cities, although it applies immediately to 46 cities in eleven states. Secondly, it prohibits all modes of transfer of land and buildings except by prior and formal permission. Thirdly, it provides for a positive measure of acquisition of such land in excess of the ceiling to redistribute and to regulate the construction of buildings and other land use patterns.

THE ACT has several social and economic implications both manifest and latent. It obviously curbs tendencies of land grabbing and speculation, the two main obstacles in the socialisation of urban land. Profiteering had reached a climax in many metropolitan cities. Speculators used to buy large chunks of urbanisable vacant land at a nominal price; they used to convert it into house plots and sell them at exorbitant prices. Many unauthorised colonies sprang up as a result. Speculators also invested in urbanisable agricultural land; they used to keep it vacant for a long time only to sell it at an opportune time when the price reached dizzy heights. Land hoarding was the chief obstacle in the way of implementing urban development plans. Now with the passing of the Act the authorities are able not only to implement the blue-prints but also check squatting by the rich and the middle classes. The Act indirectly

Shri Rao, belongs to department of Sociology, University of Delhi

attempts to plug one of the outlets for black money transactions.

Smart 'entrepreneurs', however, might find ways and means of escaping the ceiling. It is common knowledge how the land owners responded to the ceiling legislation in rural areas. First, there were wide spread transfers of land titles, on paper, among the male members of the family; the joint families split into several units overnight. Second, there was a mushroom growth of cooperative farming societies to escape the axe of ceiling. It is likely that the urban landlords might adopt such strategies. The Act, however, anticipates overnight transfers and thus rightly prohibits all transfers of land and buildings except by prior and formal permission. Although this may deter the transfer of vacant land already in possession, it cannot outwit future acquisition. At present it is a common practice for a group of say three married brothers to buy a plot and build a three storeyed house, each one having a separate floor. Now there would be a

tendency to spread horizontally on three separate plots instead of vertically in separate floors. There will also be a tendency to form cooperative housing societies. Perhaps this would be a welcome trend if the growth of luxury housing cooperatives could be restricted.

Ceiling on urban land is not necessarily a ceiling on wealth. One can build a very expensive house on a 500 sq. m. plot and a cooperative housing estate with relaxation on ceiling could be built in a luxurious style. Hence, if the egalitarian spirit of the legislation is to be kept up, the concerned authorities should encourage low cost housing cooperatives for the lower middle and working classes, and should provide more incentives in this direction. This will shift the present middle class orientation of the Act to a positive working class orientation.

Further, low income housing cooperatives will provide an alternative to the slum dwellers and thus help their rehabilitation. The land in excess of the ceiling may be profitably used to serve the interests of the poor. Here is an opportunity for slum dwellers. The Act gives wide powers to the competent authority in matters relating to the disposal of vacant land.

Certain terms in the Act like vacant, urban and urbanisable land are amenable for diverse interpretations, and it is likely that the urban landlords might take advantage of them. For instance, vacant land is not being mainly used for the purpose of agriculture in an urban agglomeration, and agriculture is inclusive of dairy and poultry farming. It is possible that those who own a large piece of vacant land might convert it into some kind of agricultural land to escape the ceiling. Here is the crucial role of the administrators in checking such attempts with a view to implementing the spirit of the Act. No time is more opportune than now for a successful implementation of the programmes.

Any legislation geared to bring about radical changes in society can only provide restrictive measures and directions. Its success depends upon a carefully worked out programme of action in which both administrators and people are involved. The Act gives ample scope for evolving a meaningful programme of urban development based on a more equitable distribution of that scarce commodity, land. □

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Chief Editor
S. SRINIVASACHAR

IN THIS ISSUE

DOOR DARSHAN	4
HEAVY ENGINEERING	7
CHALLENGE TO DEMOCRACY	11
STUDENTS' FORUM	13
BUDGET COMMENTS	27
REGIONAL REPORTS	33
SOMANAGALAM Poornam Viswanathan	35
BOOKS	37

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EDITORIAL

Good Year for the Public Sector

1974-'75 has been a year of increased production, better utilisation of capacity and large sales turnover for India's public sector. According to the annual report on the working of industrial and commercial undertakings of the Central Government for 1974-'75 laid on the table of Parliament on 2 April 1976, the net profits of 120 such undertakings have risen from Rs 644.2 million in 1973-'74 to Rs 1,835.5 million in 1974-'75. This is Rs 340 million in excess of what the Bureau of Public Enterprises had estimated in April 1975. The improvement in performance is even more heartening when we compare it with the Rs 180 million profit made by these companies in 1972-'73, the year in which they made an overall profit for the first time ever.

Along with net profits, the profitability measured as a percentage of capital employed also has gone up: A rise from 5.2 in 1973-74 to 8.4 in 1974-'75, even as capital employed itself was stepped up from Rs 13,710 million to Rs 66,270 million. The ratio of net profits after tax to paid up capital increased from 1.9 per cent to 4.9 per cent. Altogether, the public sector units have been able to generate internal resources of Rs 5,800 million, against an amount of Rs 5,530 million assumed for the Fifth Plan.

Better utilization of capacity is the one major factor that has gone into the improved picture. During 1974-'75 as many as 54 companies were able to achieve a capacity utilization of more than 75 per cent as against only 45 during the previous year. Twentyseven companies achieved a level of 50 per cent to 75 per cent capacity utilization during the year against only 22 in the previous year.

Another area where tighter management practices have resulted in better performance is inventories. They have been reduced from 7.9 month's value of production in March 1966 to 4.3 months' value of production in March 1974 and further down to 3.9 month's value of production at the end of 1974-'75.

All this, however, does not give room for complacency or undue optimism. According to Dr Ajit Mozoomdar, the Director-General of the Bureau of Public Enterprises, the profitability of these undertakings may not show the same high trend in 1975-'76, because of price inflation in a greater part of 1974-'75. The five-fold increases in oil prices, the problem of accumulation of stocks, and the heavy losses on account of the 'sick' mills under the care of the National Textile Corporation, may all work together to make profit a moderate one for the country's public sector in 1975-'76.

Even during the last year, the public sector's performance would have been still higher but for the losses incurred by the 39 concerns, whose cumulative losses have gone up from Rs 785 million in the previous year to Rs 1,387.9 million in 1974-'75. Also of concern is the case of the heavy engineering group, where five out of 12 operating units were utilizing less than 50 per cent of their capacity. Overall, while there is sufficient reason for good cheer, the country can hope for a still better account from its public sector, now that it is assured of a more compatible climate of stability. □



INDEPENDENT STATUS FOR TV

Accent on Rural Upliftment

सत्यम् त्रिवम् सुन्दरम्

TODAY we are delinking the television from radio. This is necessary because these are two separate media requiring different programmes and production techniques. The growth of television would have been stunted without this separation. It has given me an opportunity to meet all of you, specially the people in the 2,400 villages which are covered by the SITE programme.

Many of our people considered the television or SITE programmes an extravagant luxury. But, as you have seen, television not only entertains but educates as well. City-dwellers read newspapers and have access to other means of communication too but through television we are able to reach our villages. Villagers can be now enlightened about many things such as children's education, better farming practices and health and medical care. Womenfolk can benefit from useful hints on running their households. In a vast country like ours this is the only way we can reach far-flung places. Television also serves as a great teacher in villages where there are no teachers.

Perhaps you will recall that in the "puranas", our ancient scriptures, there is mention of the divine sight through which Sanjay was able to watch a battle from far away and describe it. Though not exactly like it, television similarly brings into your home pictures from far off—here and abroad—and adds to your knowledge about the world.

It is up to you all to benefit from this knowledge. On our part we should produce programmes which are of relevance to people of different age groups and classes. With experience we hope our programmes will improve further and the cooperation and suggestions of viewers will help us in this.

Since becoming free we have spent

something like Rs 75,000 crore on development. This is a huge sum. Our agricultural production, irrigation facilities etc. have doubled and our industrial progress has been vast and varied. Health and education facilities have also expanded. But it is also true that there are many areas and many groups of people who have been left untouched by the process of development. Of course we could not possibly have covered every place and person but two things in main have checked our progress. One is our population—we have added 25 crore to our numbers. Thus every rupee spent has had to be correspondingly stretched farther. Secondly, the discipline and spirit of cooperation which we should have been imbued with have been largely lacking.

You have seen the growth of violence and disruptionist tendencies in the last few years. Students were not attending schools, workers stayed away from factories and there were strikes here, there and everywhere. This was a testing period for us and the wheel of progress, slow-moving as it was, seemed to be coming to a standstill. A new sense of discipline now pervades the country but we have to give it reality and depth. I hope that those of you watching this programme, and even those who are not watching it, will ponder over this.

All countries need discipline; more so the poorer among them which have to do a great deal to remove poverty. Discipline does not mean regimentation. In its truest sense, discipline is placing the nation's interest above the individual's.

We adopted the democratic form of Government and have followed it since independence. But some people, the opposition parties, construed it as licence to say or do anything they liked. This led to indiscipline not only in political life but in other spheres as well. Selfishness brings hatred and greed in its wake, resulting in wrongful acts which harm not just

an individual but the entire country. Think of the havoc wrought by Kaikey of *Ramayana* who thought only of her own interest and harmed not only herself but many others in the process.

Whether a person is a farmer, teacher, labourer or student, he has to always see how what he thinks and does will help society to progress and prosperity. Our recent programmes have been widely welcomed but they can be implemented fully only with the people's cooperation, when people think of them as their own and as the nation's programmes rather than as governmental schemes.

I know and I do sometimes get complaints—about government officials taking undue advantage of the situation. This had been happening even before. To say this is not to condone it. We have to work together to check this evil. As for me I take immediate action whenever I receive a complaint. But there are lakhs of villages, crores of people and it is very difficult to know what is happening in every city and village. If the people of each village, each mohalla are determined to do something then it can surely be done. Take population. Family Planning is of utmost importance to us. If our population continues to grow at this rate we shall be short not only of food but of even standing space. We have to implement this programme now. Its effects will not be apparent overnight. It will take a decade or two to show results.

As you know, I have great faith in our ancient culture. This has provided staying power to us, to our society through many centuries and millennia. But some of our traditional beliefs, even if they had a point once upon a time; have lost meaning in the changed world of today. Many people, however, still continue to cling to them. In this category come casteism, untouchability etc., in fact, a host of afflictions if you look at them. Even today

there are some castes which consider it beneath their dignity to touch a plough.

What does this mean? Is the plough a dirty thing? Whether one sweeps and cleans, works in the field, factory or office, one is doing something the nation needs, and such work just cannot be called dirty or degrading. To dub some profession or caste low indicates the kind of thinking which has caused us to lag behind other nations and which provokes outsiders to say that India can never make progress or go ahead. We have to now join hands to prove them wrong. We are, of course, making good progress but we have to show them that we can move even faster and, indeed, we will move faster.

This will be possible only when we take the fullest advantage of science. Science does not mean only new farming practices and factories. It implies a new way of thinking, a new outlook. This is what our country and our society need today. There are some among the older generation who may find it hard to shed outdated beliefs and views. I hope they will also try to change once they realise that the change is for the good. When the farmers in our country found that they could increase production by new farming methods they did not take long to discard some centuries-old practices.

I hope that the elders will give up outdated ideas, and that our young people, who have a full life ahead of them, will not get entangled in them. There is the evil of dowry. It causes great hardship to the girl and her parents. And when women suffer, men cannot remain unaffected. In fact the entire family is affected.

These are some of the things which must engage our attention. I am sure all of us citizens—and, in a way, soldiers—of India will think about this. Recently I was in Jammu and there I talked to the brave jawans and officers of our Army and Air Force. Being in uniform they deem it their honoured duty to sacrifice their lives for the nation. Similarly some duties are cast on us too. If they are willing to lay down their lives we should at least work hard to strengthen the nation. We do not have to give our lives or our blood but the country needs our sweat. It needs our courage to fight against what is wrong and evil.

I hope and trust that all of you, young and old, men and women, will think about these things. Only then can you take full advantage of these TV programmes being beamed out to you.

The SITE programme, as you know, is about to end. We, and the viewers too, would have liked to continue it but the agreement was only for a year. We are trying to connect some of the villages covered by it to our television system but it will take some time.

We hope the television will gradually cover every part of our land. Apart from achieving what I have said, it will unite and strengthen the country. No nation can exist without unity and unity comes only when there is discipline, when people belonging to different faiths and languages are willing to live and work together. None should consider anyone low or high and each one must be dedicated to his work. Whatever we may be doing we must think how it can be done better.

We are inclined to be satisfied with a little progress and tend to grow complacent. The world is moving so fast that no matter how fast we move there is always someone ahead of us. We should, therefore, always aim at moving faster, working resolutely and helping the nation to move higher. Higher not in the literal sense, but in the sense of raising the people's standard of living.

We still have some people amongst us who are extremely rich and many who are very poor. There has been some change in the pre-Independence picture of poverty but it can still be seen in *adivasi* areas and sometimes in

the slums of our cities. Some progress has no doubt been made in reducing poverty, which makes us happy, but the magnitude of the task yet to be done almost overcomes one.

Visitors from outside often wonder how I am able to shoulder the burden of such a big country with its vast population. There is only one way in which I can shoulder it. This burden is not only on my or my government's shoulders but it is shared alike by all my sisters and brothers in the country. I hope you are ready to share this burden. I know you have the courage and ability to do it. What is needed most is self-confidence. You must have faith in yourself that you have the ability and strength to carry this burden and you will bear it proudly and cheerfully that you will face squarely any crisis, any danger, internal or external.

We have to keep all this in mind. If you find something wrong being done, some programme that is not being implemented properly, or if you have some suggestion for a new scheme I hope you will not hesitate to acquaint me of it. You can come to me or contact the man on the spot responsible for a particular programme or scheme. I hope those who can write will help anyone who cannot. We must feel that all of us in this country are members of a family. We should cooperate with and help each other and thus together take the nation forward. □

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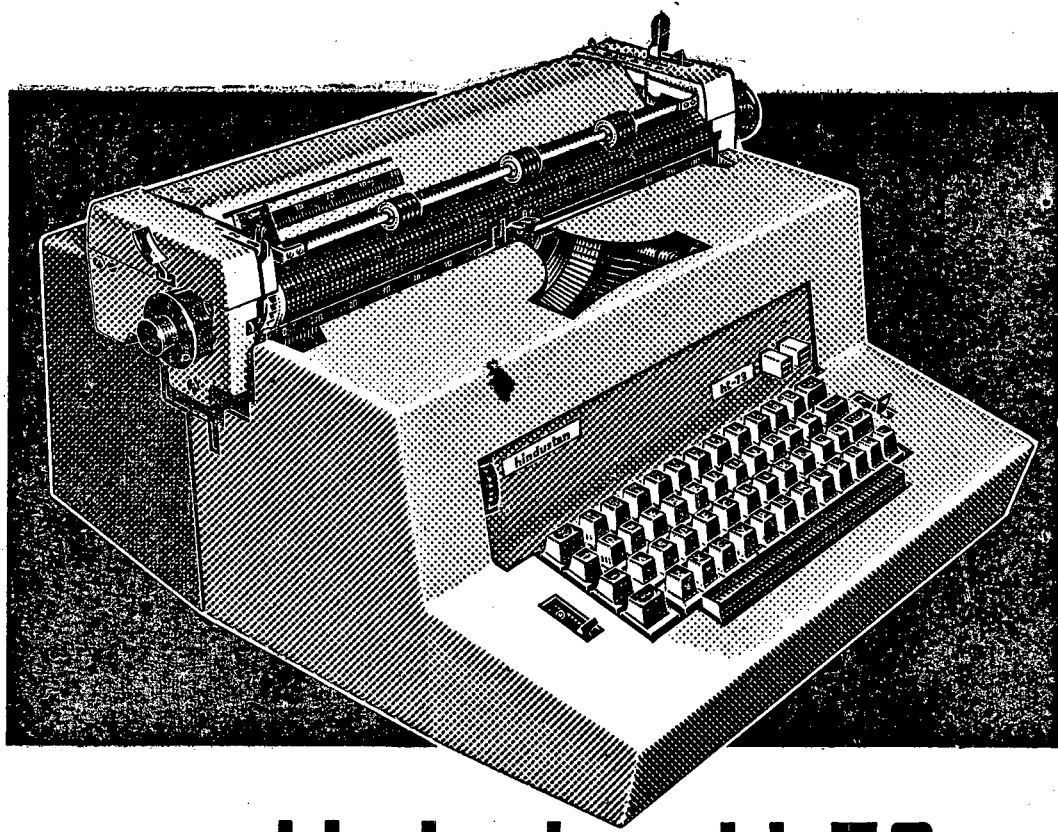
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HEAVY ENGINEERING

Its Contribution to Economy

THE METAMORPHOSIS that has been wrought in our country's industrial economy since independence, particularly during the last decade, is really fascinating. Earlier, the economy was based mainly on primary and, to some extent, on intermediate goods. We are now turning out highly intricate and sophisticated finished products. We are meeting our own needs as well as generating employment opportunities. The Heavy Engineering Corporation, Ranchi, can justifiably be proud of its achievements during the last 10 years.

The HEC's contribution to an average man's need is multifaced, though it does not appear in the shape of consumer goods or durable goods. But the prime inputs—steel and other metals like aluminium—owe their growth, prosperity and expansion to this undertaking. The steel from various steel plants has a direct bearing on the production of engineering goods and consumer durables, ranging from electrical appliances, household gadgets, trucks and buses, cars and scooters to agricultural tools and even safety-razor blades. Thus, the daily life of the common man is today inextricably linked with the activities of the HEC.

One of the biggest engineering complexes in Asia, the HEC is a three-in-one complex comprising the Foundry Forge Plant, the Heavy Machine Building Plant and the Heavy Machine Tools Plant. Forgings, castings, machine-building and machine-tools manufacturing are all done here under one roof. Each plant meets the demand of the other and so their proximity is of great advantage.

Contribution to various Industries

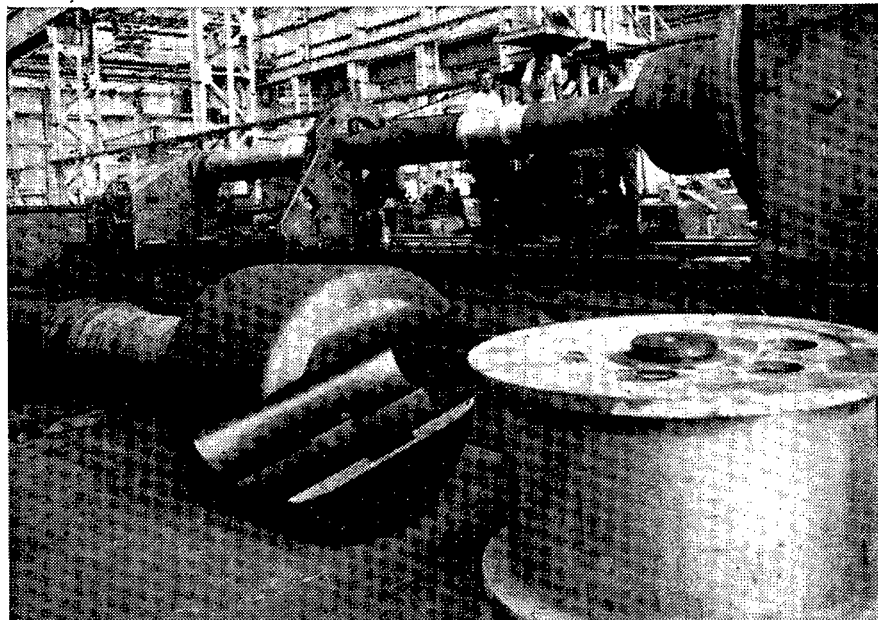
HEC symbolises the resurgence of industries in the strategic sectors. It has helped the setting up of the sixth blast furnace complex at Bhilai and the 1.7 million-tonne steel ingot stage at Bokaro. It is now engaged in supplying equipment for the 4-million-tonne expansion stages of Bokaro and Bhilai steel plants. It is making a substantial contribution to the setting up of the three steel plants in the South.

A very important role is being played by HEC in the steel plants' scheme to increase their capacity from

9 million tonnes to 14 million tonnes by 1981. This would help not only in meeting our domestic requirement of steel but provide a surplus for export. As compared to production of 4.9 million tonnes of finished steel in 1974-75, the production is going to be 5.7 million tonnes this year.

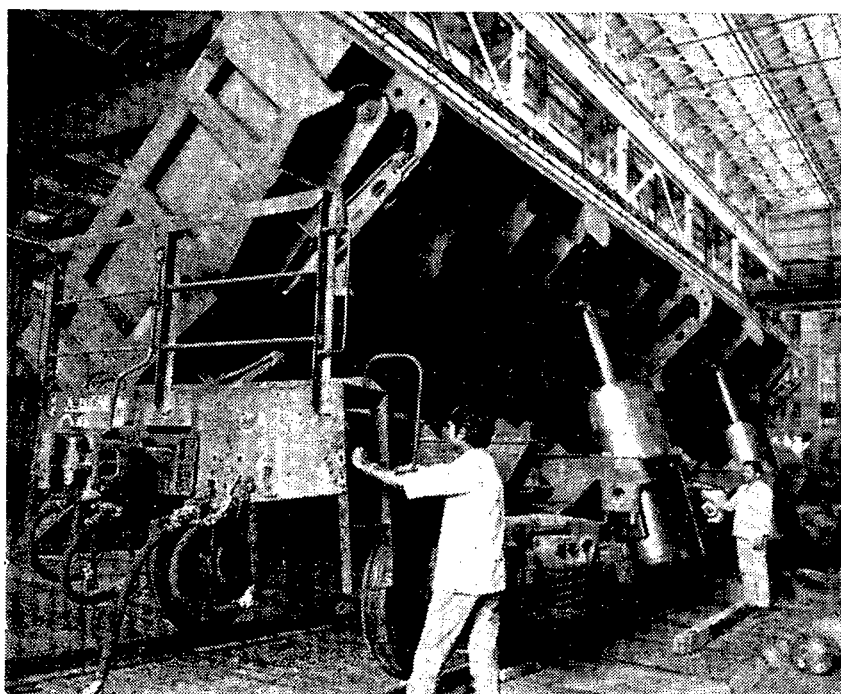
Besides, the HEC is playing a distinctive role in maintaining steady growth in production by reducing our dependence of steel plants on imports for meeting their requirements of critical spares and even capital equipment. These plants had been set up in collaboration with various foreign countries.

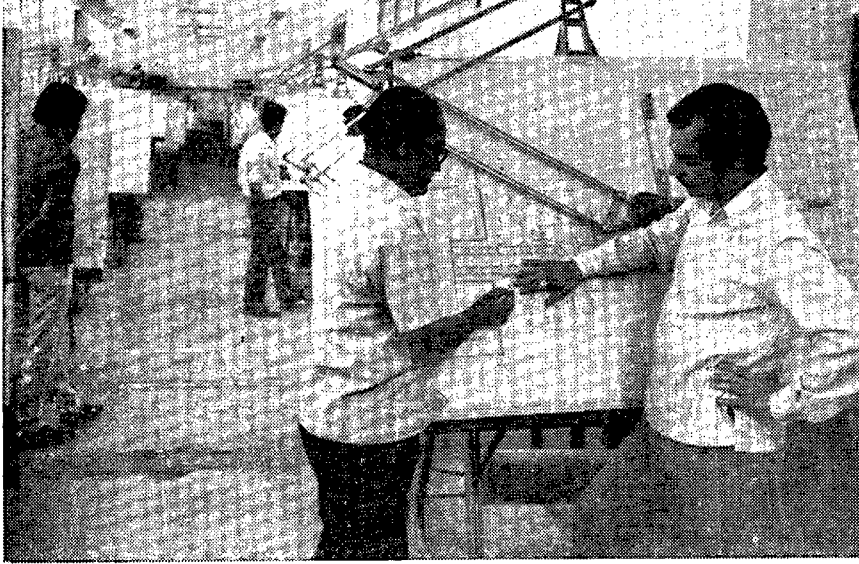
Next to steel plant equipment, which is the mainstay of the HEC, comes the manufacture of equipment for the mining industry. The Corporation manufactures the world's biggest gyrorotary crusher—which has



Above: Turning of a spindle (8.430m. long) at HEC Ranchi, for supply to TISCO Rolling Mills

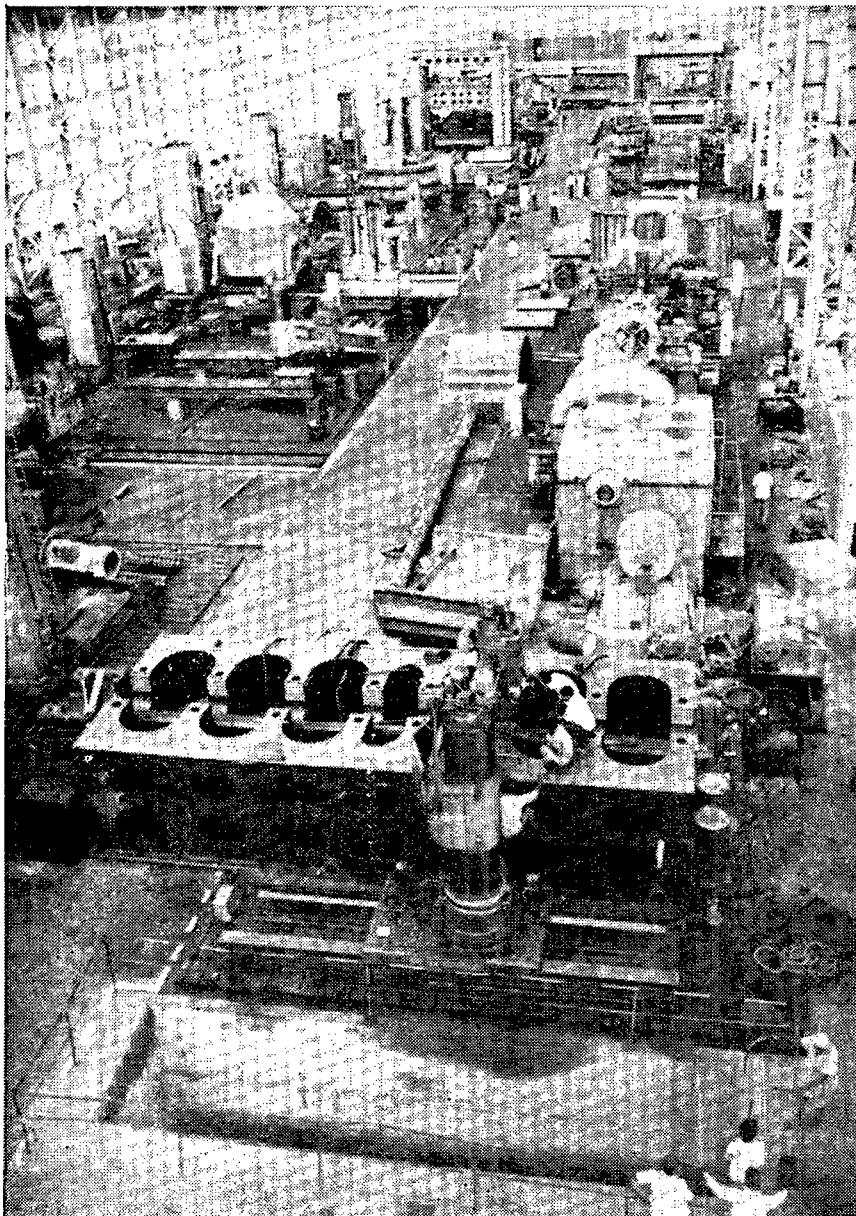
Below: Auto-Dump Car for Bokaro Steel Plant





HMBP Design Section, HEC Ranchi

Inside general view of Heavy Machine Building Plant, HEC Ranchi



a capacity for crushing 3,000 tonnes of 1.2 metre boulders of iron ore to 180 m.m. size pieces. This crusher will be in operation at Bailadilla from where iron ore will be shipped to Japan to earn valuable foreign exchange. Other mining equipment manufactured includes secondary and tertiary crushers, jaw crushers, 7 and 10-roller screens, stackers, wagon loaders, reclaimers, apron feeders, double drum mine winders, etc. All these are sturdy and reliable machines and are in operation throughout the country in the open-cast coal mines as well as deep shaft mines.

When the coal industry is trying to raise its capacity to 135 million tonnes from its present capacity of 90 million tonnes, the HEC's contribution is of particular significance. This complex can now supply equipment for setting up coal handling plants at pit-heads so that coal can be crushed, screened and washed quickly. This ensures maximum utilisation of the plant capacity.

The HEC is now meeting all the requirements of equipment for the cement industry. The Corporation manufactures heavy castings like tyres whose finish-machined weight is 53 tonnes, 5.6 m. dia girth gears, mill-head, and supporting rollers, etc. Due to HEC's contribution, the cement industry has been able to expand its capacity considerably over the last few years and has even started exporting. For sugar mills too, the HEC supplies roller shafts as well as precision gears, which used to be imported earlier. For the ship-building industry, it manufactures 21-tonne propeller shafts, intermediate shafts and other parts. It manufactures sophisticated equipment like frames, bed plates, cylinder jackets, fly-wheel shafts, etc., for Marine diesel engines upto 11,000 B.H.P. The HEC has supplied to the Railways more than 1,500 axles for locomotives, besides ten crankshafts, each weighing 2 tonnes, to Diesel Loco Works, Varanasi.

The HEC's contribution to the electrical industry has also been considerable. The equipment includes heavy and complicated castings like butter-fly valves, spherical half-body and stainless steel runners, rotor shafts for turbo-generators and main shafts for water turbines. For the production of these forgings, steel ingots weighing 64 and 76 tonnes are being forged at the massive 6000-tonne press.

Agriculture

Truck-mounted drilling rigs with

Yojana QUIZ

1. What is the height of the Char Minar at Hyderabad? (a) 101 metre, (b) 40.2 metre, (c) 56.7 metre.
2. Mother Teresa was born in (a) Albania, (b) Goa, (c) the United Kingdom.
3. India's first graphite plant is at (a) Tatanagar, (b) Durgapur, (c) Kota.
4. The number of locomotives maintained by the Indian Railways is (a) 5,000, (b) 11,000, (c) 15,000.
5. The Editor of the first issue of *Young India* was (a) M. K. Gandhi, (b) G.K. Gokhale, (c) Chittaranjan Das.
6. The Goncha is a dance of (a) people of the Subansiri District of Arunachal Pradesh, (b) Malda of West Bengal, (c) Bastar of Madhya Pradesh.
7. Who was Khurram Shihad-ud-din Muhammad ? (a) Babar, (b) Shah Jehan, (c) Siraj-ud-daula.
8. Panna is known for (a) emerald, (b) diamond, (c) mica.
9. "O my unfortunate country, those whom you have debased, they shall drag you down to their own level till their shame is yours",—was written by (a) Dr S. Radhakrishnan, (b) Dr Rabindranath Tagore, (c) Netaji Subhas Chandra Bose.
10. Porto Novo is at (a) New Zealand, (b) Sri Lanka, (c) India.
11. Sagar Samrat is (a) an oil tanker, (b) India's offshore drilling platform, (c) an aircraft carrier.
12. What is a mach ?
13. The underground nuclear explosion conducted by India was at (a) Saharanpur, (b) Porbunder, (c) Pokhran.
14. The first India-made rocket was (a) Rohini, (b) Thunder, (c) Toofan.

1. 56.7 metre. 2. Albania. 3. Durgapur. 4. 11,000. 5. M.K. Gandhi. 6. Bastar of Madhya Pradesh. 7. Shah Jehan. 8. D. G. Tagore. 9. Dr Rabindranath Tagore. 10. Sri Lanka. 11. India's offshore drilling platform. 12. Mach is a unit of speed. 13. Pokhran. 14. Rohini.

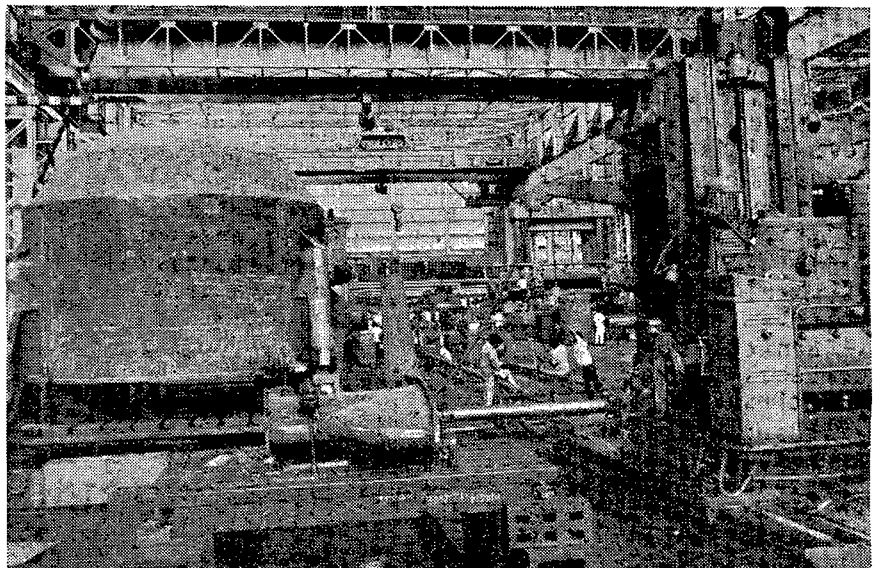
ANSWERS:

capacities ranging upto a drilling depth of 750 m with 500 mm bore are operating in various drought-affected regions for irrigation purposes—converting parched lands into lush green fields. For Barauni Fertilisers, the HEC manufactured and supplied a Horton Sphere with a capacity of storing 5,000 tonnes of liquid ammonia.

Research and Development

The HEC has made its contribution in the research effort by supplying a massive 262-tonne magnet frame for the Bhabha Atomic Research Centre's Variable Energy Cyclotron Project in Calcutta. This is a highly sophisticated equipment which involves precision machining so as to ensure a perfect vacuum in the chamber. Special steel castings were used for this purpose. It is a device for accelerating positively charged particles like protons and heavy ions to high

Iron ladle of capacity 140 Tonnes under machinery in the HMBP for Bokaro Steel Plant



velocities for bombarding various nuclei to produce nuclear reaction. This is meant for research work by scientists in the fields of nuclear chemistry, nuclear physics, solid state physics isotope production and biophysics, etc.

The HEC has been able to keep abreast of the latest innovations in technology, especially in the fields of ferrous and non-ferrous industries through its self-contained Design Organisation. So far as quality-control is concerned, it is second to none.

At the other end of the spectrum is HEC's contribution to the engineering industry through manufacture of heavy machine-tools. With the aid of these tools all other machinery and equipment are manufactured. It also manufactures various types of general purpose heavy machine-tools like central lathe, horizontal borer etc. The Corporation supplies machine-tools valued at Rs 65 million to the engineering industry.

The value of the production of the HEC was Rs 760 million in 1974-75 as against Rs 560 million in 1973-74. This year, it is likely to cross Rs 1,000 million mark and thus break-even for the first time. The Corporation has a capital outlay of Rs 2,700 million.

The Corporation has set up various ancillary industries around its complex. The annual turnover is about 25 million now and is likely to touch Rs 50 million in the next two or three years. Nearly, 1,500 persons are earning their livelihood in these industries.

HEC has served as a catalyst in providing an efficient infrastructure for basic industries and thus strengthened our economic independence.



NGEF

Ours is not a big name

N.G.E.F. expanded is just NGEF. More to the point, we've been helping bridge the gap between the generation of power and its utilization through our leadership in the manufacture of transmission and distribution equipment. But that's only the beginning of the NGEF story ...

There has been a ten-fold increase in the installed power generating capacity of India between 1947-1975. By the end of the 5th Plan, the country's installed capacity is expected to rise to 33,000 MW.

But it is recognised that an increase merely in generating capacity is not enough.

Therefore, as a national policy, the Government of India is giving equal importance to the expansion of transmission and distribution capacity.

It has now been proposed to spend Rs. 1,600 crores during the 5th Plan to strengthen the transmission and distribution network — an investment equal to what has been spent over the last two decades.

As you can see, this puts NGEF's role in clear perspective: bridging the gap between the generation of power and its utilization.

NGEF: bridging a gap — powerfully

NGEF transformers are used by all State Electricity Boards. And in every kind of industry.

That's because NGEF manufactures a very wide range: power transformers, distribution transformers, rectifier and furnace transformers, reactors, auto transformers

and Clophen-filled transformers ... emerging as one of the leading transformer manufacturers in the country.

That doesn't end NGEF's contribution. It makes an extensive range of low voltage and high voltage switchgear.

NGEF: making India's widest range of motors

Yes, NGEF makes the widest range of AC motors — conforming to international standards like IEC, VDE and BSS. The range is from 0.25 HP to 2,000 HP.

In the field of motors, NGEF has achieved many breakthroughs: the first to introduce increased safety motors; the first to manufacture crane motors with Class H insulation; the first to make motors with less than a 2-micron vibration level and also will be the first to manufacture nuclear reactor coolant pump motors.

NGEF

-powers the nation's progress

NGEF: a technological breakthrough in semi-conductors

Now, for the first time ever in India, high-power diodes upto 700 amps and 3,000 volts are being made right from the 'diffusion' stage.

It's NGEF who has introduced this diffusion technology here for high-power diodes — a technology which is comparatively new in advanced countries.

Apart from being a technological achievement, it could also mean a saving of Rs. 2 crores of foreign exchange per annum, provided all diodes produced in the country are made from the diffusion stage.

Plus, the country will not have to import diffused pellets any more for making power diodes.

What's new from NGEF?

Soon, NGEF will be taking up the manufacture of thyristors, thyristor converters, DC machines, alternators, transformers of 220 KV, and 400 KV, instrument transformers upto 400 KV and condenser bushings. As they say, what's in a name?

NGEF LTD

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CHALLENGE TO DEMOCRACY

Democracy is the most demanding of all forms of Government in terms of energy, imagination and public spirit required of the individual. If the claims of individual clash with general welfare, the larger good must prevail.

—INDIRA GANDHI

I HAVE BEEN speaking so much on this subject that I do not really have anything very new to say, but it is a good idea to have these seminars and discussions to enable more and more people to express their views and perhaps even their suggestions. Last month in Bombay there was a useful seminar on "Disciplined Democracy". I suggested that the name be changed to Discipline in Democracy. And if I may make a suggestion about your title I wish it had been not "Challenge of Democracy" but "Challenge to Democracy."

We in India chose democracy not to please any other country, but because of our belief that democracy would enable India to stay united and make progress in the modern world. What form of Government a people adopt is their own business. Other countries have no say in the matter. Our people have chosen democracy. We intend to make a success of it by dealing with those forces which plan to undermine it.

Sometimes I am asked whether western democracy is not foreign to India—whether a poor and illiterate country can effectively run democracy.

My answer is: We became democratic not because the British gave us democracy, but because the Congress, under Mahatma Gandhi and Jawahar Lal Nehru built democracy in India. So it has become ours. Democracy is nobody's monopoly. No patents have been taken out by other countries.

Address at the Seminar on March 23.

Nor is our democracy under any foreign licence.

Many of our familiar plants came from abroad in the last couple of centuries. Would any Allahabadi believe that the guava is originally from Central America, or any Andhraite concede that chillies are not of Indian origin? Guavas, chillies, potatoes and maize to name only a few have become Indian. So has democracy.

Parliamentary Democracy and Communism, the two great opposing systems, are both of western origin, But different countries of the world have adopted them and, with suitable modifications have made them their own.

The concept of democracy has been a changing one even in the same country. Much is written of Greek democracy. It is well-known that in Athens women and the poor had no voice in politics. Also, this praised Greek democratic system lasted less than 70 years. Britain the self-styled home of parliamentary democracy, was not a democracy in the last century, although it had parliamentary rule. It became a democracy only after it adopted adult franchise. Women fought for and won the right to vote after the World War I that is only 60 years ago.

The first requirement for a political system is its capacity to endure. In the last few months we have been combating the challenges to our democratic system.

Secondly, whatever its virtues, no system can exist in the abstract.

Desirable as democracy, is, the country is greater. The test of a system itself is whether it subserves the country's unity and integrity. We are convinced that only a democratic form will hold a country of our diversity of language, religion and customs together, because only democracy enables all the people to participate.

The third requirement is that the system must promote the economic and political welfare of the people as a whole. History does not support the concept that authoritarian regimes make quicker progress than democratic ones. Even those who eulogise China's progress have come to realise that its economic growth under a totalitarian system has not been more spectacular than India's under a democratic system. However, it is true that class disparity is less visible there.

Certain features, not necessarily democratic, have been wrongly adjudged as crucial elements of democracy. Anatole France once wrote "In its majestic equality, the law forbids the rich and the poor to sleep under bridges, to beg in the streets and to steal bread." Has the Anglo-Saxon legal system not been largely used in defence of the propertied classes? Personal liberties in England were won in the long struggle against monarchy. Our law, which incorporates many of these features, has now to be amended so that the democratic spirit can override our feudal inheritances. When claims of individual privilege clash with those of general

welfare, obviously the larger good has to prevail.

In Indian conditions democracy has perforce to be socialist, and also secular. Communal parties are ipso facto undemocratic

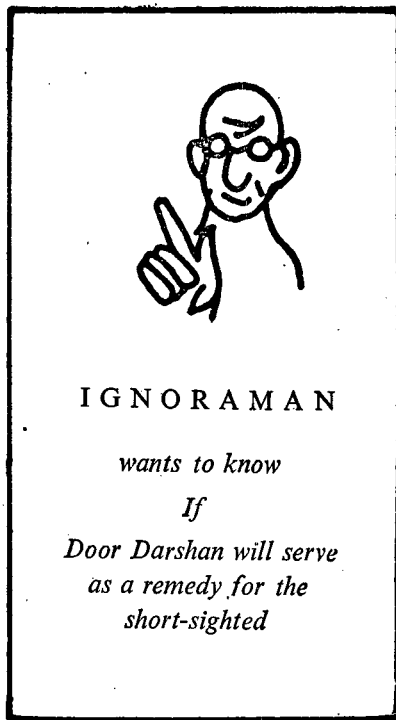
Now we face a special situation. An international campaign has been launched to create the impression that India has abandoned democracy. It is an old story of giving a dog a bad name before hanging him. Some Indians are feeding this propaganda. I cannot help feeling that in this, they themselves are perhaps fed by outside forces.

In June last year some opposition groups launched a joint plan, ostensibly to save democracy. It is interesting to identify these great defences of democracy—the Jan Sangh with its militant wing the RSS, Anand Marg, Naxalites, CPI(M), DMK, Socialist Party, and their minor partners, the Cong(O) and BLD.

What is the record of each of these? The first four are parties believing in violence. Their method is to impose the views of a small number on the majority through terror and intimidation. The DMK's interest in strengthening the nation is suspect. The Socialist Party's faith in democratic methods and in non-violence is less than total. It has always tended towards methods of sabotage and underground bravado, abusive language and character assassination, dragging public life to low level.

The Cong(O) and BLD did and perhaps do genuinely believe in the constitutional approach. But Cong(O) leaders did not hesitate to adopt the most unconstitutional and undemocratic tactics in Gujarat and Bihar. Gheraos, intimidation of, and forcing elected persons to resign, fasts to get assemblies dissolved—such conduct is far from democratic. Their readiness to join with dubious and dangerous elements does not sustain their democratic credentials.

As for foreign elements who are



shedding tears for Indian democracy, which of them have clean hands? Can their advocacy of authoritarian and military regimes be so quickly forgotten?

The big papers are on their side—just as big papers at home were ready to break up our unity by weakening the Central Government at a time of the most acute and complex economic challenge our country has ever faced.

One London newspaper has specialised in widely publicising the cock-and-bull stories and hand-outs of our so-called underground leaders. Yet it has no space for articles of internationally respected figures who write with first-hand experience.

Don't think that many nations are against us. Governments have their own policies. But large numbers even in those countries whose papers criticise us, are friendly towards India. In recent months many wes-

tern governments have shown more understanding and sympathy in their economic relations with us.

The Soviet Union and East European and many non-aligned countries have been consistently friendly to us.

We do want friendship with all nations, but ultimately it is our own self-confidence and the unity of our people which will serve us. Only through our own strength and endeavour can we win our political and economic battles.

Democracy is valuable to us because more than any other system it facilitates the involvement of all sections of the people and gives the inner strength as George Marshall said: "Democracy is the most demanding of all forms of Government in terms of the energy, imagination and public spirit required of the individual." Shri Aurobindo's words are as relevant today as they were in 1908: "This love for our countrymen, this habit of mutual assistance, this sense of mutual duty has disappeared. Each man is for himself and if anything is to be done for our brothers, there is the Government to do it and it is no concern of ours".... "If any nation wishes to survive in the modern struggle, if it wishes to recover or maintain Swaraj, it must awaken the people and bring them into the conscious life of the nation, so that every man may feel that in the nation he lives, with the prosperity of the nation he prospers, in the freedom of the nation he is free."

This is what we are trying to do in India today. How far we succeed depends on all of us who are here and all the millions of others who are interested in strengthening our democracy, in giving it a broader base and a deeper meaning. I am sure that seminars such as this will give guidance in this direction—guidance not only with new ideas but will enable people to think for themselves, and that also is one of the basic necessities of a democracy. □

YOJANA : New Prices and Subscription Rates

With effect from 1 May 1976

the single copy prices and subscription rates of the different editions of *Yojana* will be increased nominally.

Students, teachers and libraries will continue to get the 25 per cent concession of subscriptions.

Subscriptions are entertained by the respective Editors in the case of regional editions and by the undersigned in the case of English and Hindi editions.

	Single copy	One year	Two years	Three years
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		\$ 4.00	\$ 7.00	\$ 9.50
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		£ 1.00	£ 1.20	£ 2.40
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STUDENTS' FORUM

The response this time has been exceptionally good, both in quantity and quality. One significant factor worth mentioning is that boys have far out numbered girls in responding, whatever conclusion one might draw from the fact. And several girls have said 'no' on the ground that the whole thing may be impractical. But there is near-unanimity about the need to do something very drastic about the problem, reflecting the extent to which educated sections are already motivated in favour of FP. And the letters also reflect genuine concern for the nation.

When this subject was first announced for discussion in the *Yojana* Students' Forum, no State had actually made sterilisation compulsory under any circumstances. Since then, several States have taken that step in varying forms. The need for compulsorily restricting the size of the individual's family can be justified from the point of view of social justice: When society's resources are limited and there are ever-louder cries for more equitable distribution of



available resources, there can be no escape from putting a ceiling on the number of individuals who will share the wealth. Already, we have statutory rationing and ceilings on wealth, and the more the pressures build up, the more restrictions we must expect from ourselves. If the wherewithal sinks below the viability point, there would be then no nation to speak about.

However, in translating the hard social realities into meaningful action, we have to take into account a variety of factors, the psychological factor being not the least among them. Wider dissemination of the pertinent pieces of information which determines our choice should help bring down the psychological barriers. It is heartening to note that the young people of India are well aware of the implications of our predicament of swelling numbers, and the need to sacrifice conventional notions of rights and freedoms in an explosive social situation. To the extent they realise it, 'mandatory' becomes 'voluntary'.

Should We Make Family Planning Mandatory ?

[The Alternative is too Dismal]

"If the population problem is not dealt with reasonably, it will in fact explode; explode in suffering, explode in violence and explode in inhumanity"—Robert McNamara, the President of World Bank.

We should make Family Planning Mandatory because of the following:

Over population leads to poverty and mass starvation. Population growth will neatly cancel out any increase in Mr. Average Indian's diet. Per capita income does not increase proportionately to that of national income. The other, more painful manifestation will be mass unemployment. Population growth is an impediment to rapid economic development of a country. There will be reduction in "Savings and Investment". Since national income and per capita income are low, "Labour efficiency" decreases.

Political disorder comes into existence.

For a solution to the present problem we should approach it from both the sides, viz., (a) Production and (b) Population. Agricultural production as well as industrial production should be doubled through the adoption of modern technology. Urbanisation of the

Better India means better citizens. Each of us can become a better citizen if we enjoy more affection and attention, proper nutrition and education in our private lives. This is possible only in a planned family. It is for this reason that we need FP. It is wholly an individual's concern and I don't think law should have much to do about it.

population, the postponement of the age of marriage, the growing impact of the various family planning programmes in both urban and rural areas the spread of education, the increasing employment of women and their improving social status are various factors, which should help reduce birth-rate,

[No Premium on Vice, Please]

Before advocating FP to be made mandatory we should assess the practicability of such a law. All available data reveal that FP has become an accepted norm of life among most educated persons which clearly proves that literacy and education are a precondition to any successful working of the scheme. The illiterates don't know that a big family not only burdens them put also

As the Prime Minister put it, "to plan when population growth is unchecked is like building a house where the ground is constantly flooded."

Family Planning Act should be passed at once and implemented at the same time.

—S. SATYANARAYANA
M. Com. (Prev.)
Eluru (A.P.)

First Prize : Rs 50

weakens the nation economically as a whole. There are some others, the rich illiterates who think that they can live luxuriously even with a big family so they need not bother about such things. Such people must be shown how their conceit harms the country and the people.

Religious orthodoxy and poverty are also to be blamed as hurdles to family planning.

Recreation is a human need. Rich and middle class people can well afford it but what about those who have barely enough to feed themselves from selling their hard labour, and those who see little beyond their hovel? The basic needs of such people cannot be neglected. It will really be unjust to force FP on them.

Now law can help in solving the problem of unbridled procreation. The solution lies in education and improved standards of living of the poor.

A society which provides facilities for such improvement only is competent to make FP mandatory. Unless these are provided compulsory FP would lead to lots of innocent children being thrown out of their parents' responsibilities thus adding to the country's problem of rehabilitation. Gandhiji also said, that any compulsion would amount to placing a premium on vice.

—MISS SARAN P. VARMA
Christ Church College
Kampur

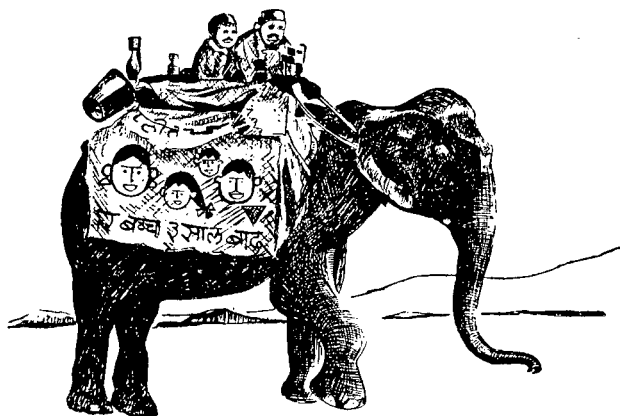
Second Prize : Rs 35

If Tagore Were Alive Today

India's present population-size has already transgressed its ecological limits. If Rabindranath Tagore were alive today, he might have had second thoughts about a statement he once made: "Every child comes into the world with the message that God is not yet discouraged of man." With a new child being born every one-and-a-half seconds, and millions of them into poverty and misery, it is time to believe that God does feel discouraged.

Our GNP, when considered in absolute terms, compares favourably with many advanced countries. But in per capita terms India gets bracketed with Burundi, Chad, Mali and Upper Volta! Even Pakistan's GNP is reported to be one-ninth of India's. But the per capita GNP is more or less the same for both. The message is clear. Population would get us, if we don't get it. It doesn't look as if we are getting it.

This is the threat of nemesis that hangs over us. What do we do about it? Population control is admittedly a hard task for a country already over-populated. Legal compulsions seem to be the only way. After all, considering the crime against children committed by irresponsible procreation, compulsory sterilisation in certain cases can hardly be considered punitive. It merely means that children are spared being born into conditions wholly unfit for growth and development. A



man's or woman's conjugal rights will not be affected by such a legislation.

Our birth-rate must be equal to the death-rate if we want to obtain a zero-population-growth rate. However, the picture is not so rosy now. India's death-rate of 16.9 per thousand is likely to decrease further, but the birth-rate of 36.6 per thousand is not likely to decrease unless we make FP mandatory.

It is imperative that FP is made a people's movement. "Let us make Family Planning a programme of the people, by the people and for the people."

—DEVINDER SHARMA
M.Sc. Agriculture (Prev.)
College of Agriculture
Palampur (H.P.)

Third Prize: Rs 20

Technology will Take Care of Growing Population

It has become fashionable to speak of Family Planning as a population policy to save underdeveloped countries, like India from poverty and pollution. But I do not agree with the concept of Family Planning and I believe that the size of population of a country need not be in correlation with the economic prosperity. It is only the incentive to work and capacity to invent and not the size of population that matters much. A larger body of evidence gathered by scientists and economists for the past two centuries has shown that even in underdeveloped countries population growth is related to economic advancement and negated the proposition that population growth is total evil, that environment cannot support much more human life than what exists today, that natural resources are rapidly dwindling and that technology may mean plunder and deterioration of life.

Our knowledge of resources (physical and human) is very meagre. It is not correct to

presume that our natural resources will soon get exhausted. Technology is bound to take care of new untapped resources. Once aluminium was a jeweller's curiosity; petroleum may one day sit in a glass container on a shelf in a museum. There is enough hydrogen in the sea according to scientists to satisfy any conceivable energy demands for thousands of millions of years. But the thing to be developed is technology. What we need is know-how and not a strategy for family planning. Let us banish the talk of Family Planning which amounts to murdering offsprings who may prove to be geniuses. Our politicians and pessimistic economists may advocate birth control. They are like a bad workman who is angry with his tools.

—K. S. LAN
M.Com. (Final)
Nellore

Consolation Prize: Rs 10

No Alternative to Persuasion

Nowadays everybody talks of compulsion as if compulsion by legislation will solve every problem. Our experience is that compulsion has never succeeded in enforcing social reforms. Prohibition is an example. Those who talk of making family planning mandatory do not realise the implications of what they say. The magnitude of the task is gigantic, and making FP mandatory without adequate machinery to enforce it is worse than useless.

The main emphasis should be on mass communication and universal education. We need a multipronged attack. In fact, all political parties should include Family Planning as a major part of their programmes. We can have administrative steps such as graded scale of Income-tax from the third child and also concessions in Income-tax to those who resort to family

planning methods. I am not against sterilisation, but compulsory sterilisation without adequate facilities for it is dangerous. The Government can offer rewards to people undergoing sterilisation. Marriageable age for girls should be raised to 22 and for men 26. People should be educated through radio, films, TV etc.

Doctors can impart education to the masses. Women social workers in particular have a valuable role to play. Efforts at mere governmental levels will not perform the miracle. I would advocate a separate ministry of Family Planning to devote full time and energy to this gigantic task. The essence of democracy is that people should not feel that something is being imposed on them. Legislation is no substitute for persuasion.

—NITISH S. RELE
Bombay

Consolation Prize: Rs 10

Compulsion, Not Denial of Democracy

India has the distinction of being the first country in world to have adopted a F P policy as early as 1952. But even after 24 years of effort only 17.5 million couple out of a total of 103 million in reproductive age of 15 to 45 years use contraceptive devices. If the process is not reversed, we shall be having an additional 50 lakh couples in the reproductive age every year.

The consequence of doubling the present population can well be imagined. Since independence food production has increased by about 60 per cent and industrial production by 150% but the average Indian does not get fruits of this development. About 15-20 million people are unemployed in India. Nearly 60 million children of school going age are not in school and there is shortage of nearly one million houses. It is estimated that for every 13 million who are added to our population each year 127,000 more schools, 373,000 more school teachers, 2,509,000 more houses, 4,00,000 more jobs, 190 million metres more cloth and 125 lakh quintals more food will be required.

With such a crushing burden on our economic resources we should recognise that parenthood is a matter of privilege and not a right. Also every child and adult looks to the state for support and employment.

Within such a restrictive frame work we have to consider whether we could afford to go slow with population control on a voluntary basis in the name of democracy. Today we can see that voluntary basis may undermine the very values

of democratic tradition.

If we are to ensure that every child born in the country grows up to be a useful and economically productive citizen then perhaps only line of action is introduction of compulsion is some form.

People have to feel convinced that this would not amount to deprivation of their sacred and fundamental rights for a lawful sex life but that this right should be subject to needs of the nation.

—D.V. CHUDASAMA
Gujarat Veterinary College
Anand (Gujarat)

Why Not?

Why shouldn't we make FP mandatory? Urban people are well aware of the need of family planning and they are following the way but not to the extent we expected. Rural people in our country are most illiterate. They think that this FP may reduce their income by reducing their working children.

We shouldn't think that every action taken by the Govt. must be agreeable to all the people. We are facing many fluctuations in our economy—unemployment, food problem, depreciation in foreign exchange etc. The prescription for all these economic symptoms is FP. It is the need of our country.

It is better that our nation makes FP mandatory to the employees of Govt. and to the others who are in need of Govt. loans, assistance etc. If we don't make FP mandatory at least within this Fifth Five Year Plan we will have to face many serious problems later.

—P. SREENIVASA
MURTHY
II B. Com.
Tirupati

The Problem is More Lethal Than a Bomb

We are adding in India about 50,000 babies every day and around 18 million every year! Now it has been realised that the rapidly growing population poses a major challenge which greatly hinders progress.

The population explosion is more dangerous than a hydrogen bomb. Due to population explosion we face many hazards—economic, social and political.

What should India do? Surely certain radical steps have to be taken to reduce the birth rate.

Now actually the target must change, there should be child welfare, nutrition and care of pre-school children, sex education in schools, to pro-

mote late marriage and also raising the status of women. Family planning should therefore, constitute part of a large programme of national reconstruction.

—KAMAL BHANDARI
Government College
Dharamsala (H.P.)

Yes, But Only When Education Fails

India is a democratic country. Men have the power to do many things. The Government should not interfere in the people's right without giving them a chance to reform.

Most people of the countryside are ignorant of family planning. These people do not want to control birth by surgery or by preventive medicines. They believe that children are the gifts of God.

The Government should try to eradicate such beliefs through proper education. If, however, the people do not follow it for their own sake and the country's sake, then the Government should compel them to control population by family planning. Then only FP should be made mandatory.

—RAMPADA DAS
Regional College of Education
Bhubaneswar (Orissa)

YES

The Problem is Too Serious As It Is

Malthus was criticised as a gloomy prophet; but he is a light house to the world.

In under developed countries population is a great obstacle for the development of the social, economic activities, of the majority of people—McNamara (President of the WB).

U.S.A., Canada, Virgin Islands, Australia, New Zealand, Sweden, Switzerland, Belgium, France, England, E. Germany put together equal India's population. In 1975 we numbered over 600 million. It is expected that by 2000 A.D. it will rise to one billion. India's land area is only 2.4 per cent of the world. Total India's population also must conform to this

proportion. But our population is increasing while our economy cannot keep pace with it.

To control our population growth we must on the one hand produce more of material goods and services, and on the other do everything to reduce the birth rate. The government has not yet succeeded in its FP programme. So, we must take all necessary steps to improve our FP performance.

—B. GOPALAKRISHNAN
III B.A. (Economics)
Tanjavoor (T. Nadu)



Mere Incentives Won't Work

The success of Family Planning drive in our country cannot be ensured by leaving the option to people, of whom a majority are illiterate and are guided by old-fashioned beliefs. There is today an awakening amongst those who appreciate the diluting effect that growing population has on the country's development, but such people are still in a minority.

Our past experience of exhorting people by door to door campaign and asking them to use contraceptives or oral drugs has not been encouraging. The mass media has also failed to evoke a sense of realisation. These facts call for a new approach.

Some suggest that the exercise should be in the form of 'incentives' and 'disincentives'. While those in Government employment or its beneficiaries may be brought under the disincentive scheme, the persons thus affected will not be many. Experiments involving incentives have been taken by various States earlier but in vain. In view of this only statutory control can bear results. This may look like being too drastic, but soon we will realise the importance of an element of compulsion.

—S. P. SHARMA
LL. B. I Year
New Delhi

Hum Do Hamare Do Kar Do

Man is fast becoming the cancer of the whole planet, observed Huxley. If the cancerous growth is not checked, just 50 years from now there will be no place left for the descendants of the present 3.7 billion inhabitants of earth.

In nature, there is struggle for existence. But recent advances in medical science has checked the natural forces limiting the human population.

If the current 2.4 per cent growth rate continues, by 1981 there will be about 700 million mouths to be fed. Over population lowers the standard of living, and causes shortage of food.

Birth control is a matter of urgency not only for socio-economic development but also to prevent hunger, unemployment and sickness. In our country family planning is of recent origin. We have over 100 million couples of reproductive age group. Even if every mother bears only three children, the birth rate will be 25 per 1,000 population, far away from the ideal LPG. And studies have shown that Indian women have an average of 6 to 7 children.

Attitude surveys indicate that although 80 per cent of people favour birth control yet only 15 per cent practice it, proving conclusively that social prejudice cannot be easily overcome. Circumstances are such that upgrading of social attitudes demands an updating in legislation on birth control streamlining the adoption of small family norm as a social habit. I, therefore, strongly feel that birth control should be made mandatory.

—SUBRATO PAL
University College of Medical
Sciences
New Delhi

Something Must Be Done

"A quarter of a century ago with every tick of the clock there was an extra mouth to be fed but now with every beat of the pulse there are three additional mouths to be fed." This comment was made by an eminent demographer. In India. According to Dr Karan Singh "India adds an Australia to its number every year." This is indeed a staggering situation and we have to ponder over.

Our economic and social conditions are largely hampered by this population growth. All efforts made by the

Government for the social and economic upliftment are practically lost in the tidal wave of ever increasing population.

Health is the wealth of a nation. Family planning is to be done for the good of all in India. The people should be educated in the art of making a small family and in the science of keeping it well cared for.

—D.K. MOHARITZ
Government College
Kalahandi (Orissa)

Yes, Even if it Means Martial Law

With the present tempo of population pollution India will have 1000 million people by 2000 AD. Think of it, like locusts settling down on our limited fertile lands! The consequences would be catastrophic.

India has progressed a lot in all fields since independence, but a population of 360 million in 1947 has increased to 600 million now, depriving us of those very benefits. Our land remains the same and the pressure on this land is increasing day by day. What is the answer?

Superstitious people believe that children are God's gifts. But God helps those who help themselves. We must help God by creating less humans. For this, F.P. is the answer.

Government should look into this matter seriously and F.P. should be made compulsory, even if promulgating 'Martial Law'. Proper education must be given to the people to make them realise the need for sterilisation. Only then will be problems of the future be solved.

—SUDHIRENDAR SHARMA
M.Sc. (Soils)
Palampur (H.P.)

Yes, Hurry up Please

Will Durant once said "Nothing so educates us as a shock." The people of India have learnt the lesson in discipline and dedication through the shock therapy administered by Emergency. It is this climate of unprecedented discipline which is conducive in checking the further growth of population. This object can be best realised by making it a legal obligation on the part of the people.

Since its inception in 1965 the Family Planning Programme has averted about 14.7 million births, which is 1.5 million per annum. Our population is adding to itself 13.7 million per annum. Only about 10 per cent of the growth rate has been arrested by the measures already taken. Our chances for an early break-

through are slender as our masses continue to be shy, ignorant and illiterate. A child is still considered a personal affair, and but for the economist, hardly anyone thinks in terms of the broader national perspective.

Compulsory Family Planning has the potential to correct all this. There can be no compromise solution if we intend making a steady progress on the world map, if we intend giving every man a *roti* a *dhoti* and a *kurta*. There will be a number of moral, social and political constraints initially. But these can be overcome with dedication and determination. It will be remembered that the Family Planning Programme too was shy in the beginning. Now it is accepted as the only solution to this national problem. I personally feel that compulsory F.P. after three would be advisable, though two would be the ideal.

—V. SRIKRISHNA
II B.Com. (Hons.)
New Delhi.

No Maternity Leave

The question "should we make family planning mandatory?" only shows that it has not fully succeeded in India. Strictly speaking family is a private matter and no outside interference is desirable. But in the present context the family has become a sub-unit of the larger family—the nation. On the welfare and development of the family depends the welfare and development of the nation as a whole. The smaller the family the greater the welfare.

To reap the full benefits from family planning steps like compulsory surgery after the birth of the second child is a bit drastic though some States have adopted it. Even the Prime Minister feels so. After all, the State cannot guarantee the survival of the first two children. But past experience shows that nothing short of making family planning mandatory will succeed in India where the full importance of containing the population has not dawned on the citizens yet. Once the law is made, parents will become fully aware of the enormous problem and their duty to cooperate.

India's population threatens to double itself by the turn of the century. We cannot afford to let this happen. Immediate positive steps shall have to be taken to avert this. For this the law should be in the nature of a deterrent and not in a positive form like compulsory surgery. Parents begetting subsequent children after the second issue should be made to pay a recurring fine per child if the pregnancy exceeds two.

Working mothers should be denied maternity leave in addition to this.

We need such positive measures to increase our rate of development.

—PRADEEP CHANDRA
L. Lb. I
Gorakhpur



Unchecked Growth Is No Joke

The question, whether to make family planning mandatory or not revolves round two words, 'RIGHT' and 'OBLIGATION'. Ours is a nation that upholds democracy and each family possesses the right to decide for itself how many children to have and at what intervals, in keeping pace with their resources and social conditions in which they live. The very same families also have the obligation to think of the future of the nation.

A population of 600 million adds every year 3 per cent to the existing mark and our total population is likely to grow upto 1200 million in 2008 A.D. This is no joke indeed. But these facts and portents are not grasped by our indifferent masses.

About half of our country's population lives below the poverty line and they determine the fate of the nation. All our attempts to revive and reform the society are to be mainly concerned with these people who believe that every infant is the gift of God.

Here we are faced with a tremendous task of making the family limitation programme a success. Hence a duty rests on the administrators and the educated people to explain the causes and consequences of our mission. This implies the total exploitation of the mass media so as to reach the remotest man in the remotest village. Money spent on the roadside advertisements is a waste as they carry little significance to the illiterate.

Thus, in our endeavour of making family limitation mandatory, we have a chance to hold aloft our democratic and socialistic ideals.

—T.A. XAVIER
II B.A. Litt,
Trichy

Far Too Much at Stake

In the few minutes it takes to read this some 2,000 babies will come squalling into the world! Every year one million more hungry mouths are added to our starving millions without any corresponding increase in our growth rate.

The greatest need in our country is making Family Planning mandatory. Unrestricted population growth is eating away all the advantages of planned economic growth. India boasts one of the most ambitious birth control efforts of any nation. Birth rate has been reduced by some two millions a year but this does not solve our problem.

Family Planning programmes deal with sensitive taboos and as a result the people are vulnerable to mistakes and misunderstandings. The programmes are hampered by misinformation and lack of knowledge.

The administrators of the Family Planning Programme should counter false rumours about medical control or surgery by mounting an effective educational campaign with the cooperation of satisfied sterilised persons.

It must be stressed that Family Planning is not a medical problem, but a developmental problem, closely linked to our economic future.

The most acceptable technique and best hope for the immediate future seems to be to convince people of the need for voluntary fertility control.

Now the time has come when it is our duty to declare that man shall not be allowed to breed indiscriminately. To the doctrine of "No work no food" should be added: "He who cannot feed shall not reproduce."

Nevertheless, population is a key factor, and even in the face of disappointments and limited success, it would be foolish and dangerous to hoist a white flag of surrender in the battle against runaway birth rates.

—K. PRABHAKAR RAO
Jamshedpur

Combine Compulsion with Reward

Population growth and birth of unwanted children is the biggest obstacle to economic and social progress in our country. Every year 13 million children are added to our population. If this rate continues, we may cross the billion mark by the end of this century.

What is the effect of this on our economy? Every year we need food, schools, hospitals,

clothing, jobs, transport, houses, energy and almost everything more than we can afford to produce. Even now, 15 to 20 million able-bodied persons are unemployed, 65 million school-going children do not go to schools and ten million people have no houses to live in.

Although, we are spending 19 crore every year to cut the size of the family, we have not made much headway. Since 1961, about 80 per cent of the developing countries started family planning and 72 per cent registered a decline in their birth rate. Hong Kong, Singapore, Barbados and Taiwan achieved spectacular success by registering 35 per cent drop. Chile, Costa Rica, Egypt, Fiji, South Korea, Mauritius, Puerto Rico and Trinidad were also successful in their campaign. But Indian birth rate of 42 per thousand in 1961 remained as high as 37 per thousand in 1972.

The reasons are clear. By means of posters and slogans, the couples were persuaded to practice family planning and were left to their own options. Couples having only one or two children were neither rewarded nor those having more children were punished. There was neither incentive, nor fear. This policy has failed.

Let there be compulsory sterilisation after three children. Preference in jobs, promotion, allotment of houses, medical facilities should be given to persons having one or two children. One adverse entry be made in the C.R. of every Government servant after the birth of each child in excess of two. Loans and subsidies should be given only to those farmers and industrialists who have less than two children. Some penalty must be imposed after the birth of every additional child after two. In this way, family planning should be made mandatory.

The alternative is a large population of ill-fed, undernourished, illiterate and poor mass of humanity.

—SHASHI KALA BISHT
M.A. Prev. (Pol.)
Nainital-U.P.

Improvvidence cannot Go with Progress

To me family planning must be related to utility in the largest sense grounded on the permanent interest of man as a progressive being. What most of us are doing today is just a repetition of what our predecessors have done and if we go on with the present birth rate, India's identity will get besmirched very soon. To avoid this it is necessary to have a rule of convenience. Man is a gregarious animal and a com-

mon rule to regulate his social and cultural life is absolutely necessary. Our present birth rate is fraught with insecurity for the new comers leading to inevitable chaos. Our nation which is marching ahead in many ways must make F.P. mandatory subject to those restrictions which are deemed proper and are for the good of all. Our nation will indeed usher in a new era of prosperity and advancement if the law of F.P. is enforced upon all.

—D. P. THORAT
B. Com. (Final)
Poona

Voluntary Control hasn't Worked

The greatest challenge of present times is the threat of population explosion. Babies are being born faster than older persons are dying. As the population grows there will be less for everyone to eat. If a portion of the population is underfed, the remaining portion is ill-fed. This affects the peace and wellbeing of the nation.

Yes, the country is over crowded. What is the remedy? Make the family planning scheme mandatory.

There is the prevention surgery after the required number of children. There are artificial methods to prevent conception. There is the pill and the loop and so on.

All these things may lead to undesirable consequences on health. But remember the law of nature-self production is inversely proportional to self maintenance. Nature tries to maintain the existence of the species. Man is a part of Nature. Nature teaches him and he corrects himself to nature's rule. Self control is of course the right course. But what if this does not work? Our past experience shows that it has not worked.

—T. SHEELA
Queen Mary's College
Madras

Do it before it is too late

At the present rate of growth of population, the population of India will be doubled by the close of this century. How will we be able to find food, clothing, housing, education and employment for them? This alarming situation needs our greatest attention.

Family Planning has been our national policy since 1952 and we have not been able to arrest the growth significantly. Naturally the programme of family planning needs a push up through legislation. Once this push is given, it automatically gets the momentum. Dr.

Karan Singh, Union Minister for Health, has also expressed the need for such steps. The time has now come to take this step. The Haryana and Punjab governments deserve our congratulations!

James Stuart Mill had favoured legislation in 19th century to check the growth of population in some sense. Why not we support it in all aspects today—in the 20th century?

—BIJOYENDRA KUMAR
SINGH
M.A. (Final)
Patna

Should Apply to All

India is the second largest populous country next to China, supporting nearly 15% of the world's population on 2.4% of the world's land area. It is still increasing at the rate of more than 2% per year.

Because of this population explosion, our Government is facing problems like poverty, unemployment etc. Increase in population leads to increase in demand for everything, and the growth rate of our economy does not keep pace with increase in population.

So, it is very necessary to control the increasing population. Our Government adopted the policy of voluntary family planning from the beginning of the First Five Year Plan. But the results have not been impressive. So what is needed is compulsory family planning. Those who have more than two children should be denied all kinds of facilities, until they get themselves sterilized. A national policy for compulsory family planning is needed. Besides, the rules regarding compulsory family planning must apply to all communities in the country. Acharya Vinoba Bhave has also favoured compulsory family planning.

—SATALE RAMA
FIRANGY
Arts Faculty
Poona

No Better Alternative

Population growth is the most serious problem in our country. It is the one single factor which affects planned development. When our resources are being exhausted rapidly, control of population is the only sensible course open.

The increase in population is causing on the one hand shortage of materials and spoliation of environment. Population of India will nearly double by 2000 A.D. When we have not been able to give even ordinary education to the existing children, what about the new babies who will come in millions in the coming years?

The only way open to India, is to go in for compulsory family planning.

—S.L. RAMAMURTHY
College of Agriculture
Dharwar (Karnataka)

Nature will Do

India is a big country bursting with population. With every year population is increasing by about 2.5 per cent. People marry early in life. Majority of the people are illiterate, ignorant and superstitious. They don't know the methods to control births. It is common knowledge that poor and uneducated people have larger families and educated people have smaller families.

The death rate also has been falling steeply, adding to the growth rate.

If the Government does not take any steps to compulsorily limit population then nature will do the job by way of war, earthquake, floods, violent revolution and so on.

—D. KRISHNAMOORTHY
B.A. Student
Putnam Patti. (T. Nadu)



Compel or Perish

After independence and specially in the last twenty years the rise in population has been tremendous. We are adding every day 57,000 to 59,000 infants to our population without proportionate growth in production. According to me this is the key to all our problems.

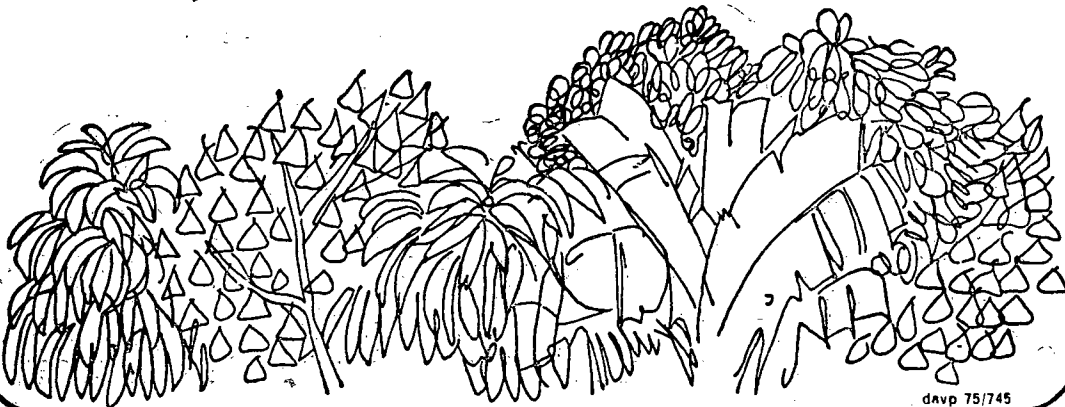
The steps taken already by the Government have not been very effective. The Government has also included the F.P. programme in our Five Year Plan. If we do not use some drastic remedies we won't be able to reach the modest targets of growth envisaged in our plans. But while making F.P. mandatory, care should be taken to see that no distinction is made between castes



protect trees and plants

TREES save soil erosion and prevent floods ;
attract rains and prevent droughts ;
protect crops ;
give shelter to wild life ;
give oxygen & fresh air and prevent air
pollution ;
are a source of recreation ;
give raw material for the timber industry
and provide fuel, fodder and food.

PLANT A SAPLING TODAY



davp 75/745

and communities. Following table shows the relative rates of growth in the population of India community-wise.

Year	Hindu	Muslim	Chris-tian	Sikh
1911	.4	5.1	22.6	7.4
1921	10.4	13.0	32.5	33.9
1931	12.75	18.51	20.75	31.27
1941	20.29	25.61	27.34	25.53
1961	23.69	30.85	32.60	32.26

—KIRTI KUMAR WANI
3rd Year Commerce
Nandurbar



Yes. If Persuasion Fails

In my opinion the root cause of our miseries lies in the alarming growth of population. The gains of economic and social development are eroded because of this. The success of family planning will depend on the extent to which the government can carry conviction with the people on the urgent need for control.

We have adopted the path of planning in every field of life. It is but right that we should do this also in the management of our own families. If democratic methods are slow to yield results then what is the alternative? The alternative lies in strict implementation of legislation making birth control compulsory, after the second child. If we want to survive, we should be prepared to sacrifice some of our democratic rights.

—KUM. SUMATI S.
SHASTRI
Final B.A.
Nagpur

Make It Mandatory

There are Economists who oppose the idea that population growth in excess would be detrimental to economic growth, basing their argument on the logic that technological

development has the answer for the future growth in population. Every second four babies are born. But the rate of investment is not keeping pace with this baby boom. As a consequence the future population threatens to become a liability to the country. So there is need to cut down birth rate in such way that the rate of investment must balance the birth rate. Demographic researches have estimated that Rs 50/- spent on family planning in India had the same effect as Rs 500/- spent for the economic development of the country. For the prevention of runaway population growth less investment is needed.

Family planning must be treated as a weapon to reduce the birth rate and not something which takes away one's liberty. In India, the cost of bringing up a child is also low among the poor and so they have no enthusiasm for it. So drastic steps have to be taken by making it mandatory.

—S.K. YUSSAF
B. Com. Student
Nellore (A.P.)

Only Way To Avert Disaster

With only about 2.4 per cent of the total land area of the world but India has to support about 15 per cent of the world population. In 1881 Indian population was estimated to be 25.4 crores, and the census of 1971 put it at 548 million; it is now estimated to be around 605 million. India's population growth is eating away all the advantages of planned economic growth.

Efforts should be made to spread the message of Family Planning in every city, town or village; there should be a vigorous educational and motivational campaign; more clinics should be established to educate people in the use of contraceptives; sterilisation should be made compulsory and used extensively; training, studies and research should be intensified.

More vigorous efforts have to be made to reduce the birth rate substantially and quickly. Only a bold policy like compulsory sterilisation can achieve this target and save the country from economic disaster. Unless this strategy of compulsory sterilisation for those with more than two living children is immediately adopted we may earn the dubious distinction of having a population larger than that of China.

—P. CHINNARAJ
I M.A. (Economics)
Madras

Yes Let Us Not Be Daunted

Man makes demands on nature for his survival. Man's population is dynamic, the earth's resources are static. When his demands exceed the limit he faces disaster. India is facing this disaster and her problem arises from overpopulation.

Persuasive methods to control this population 'boom' have been tried and have miserably failed. The Indian government has spent crores on the project but the rate of progress has remained the same. It is time stricter measures were taken.

Francis Elancard, president ILO, has called this problem the most vital problem of the century. He observes that family planning measures are adopted only in the socially well-off. The masses are simply 'not bothered'. For them problems have to be faced as and when they arise. Hence, to control a population everyone in it has to be made socially well-off. This can never be done with an ever expanding population. Thus, we have a vicious circle and the hope of a natural or instinctive check is also lost.

The last resort left open to us is mandatory family planning. To the socially less aware, specially with our Indian background, it might seem to be the end of the world. But let us not be daunted by public opinion in view of the gravity of the problem.

—J.J. VARMA
M.Sc. (I)
Manipur

Mandatory FP Will Bring Better Life

In view of India's present underdeveloped economy, massive unemployment and underemployment, poorly housed and poorly clothed people, grave shortage of necessities and with 42% of "young" population (below 15 years) how can anyone deny the dire need for small families? Voluntary and democratic methods of population control are very slow to yield results and the alternative lies in legislation making F P mandatory after the third child. How can this touchy issue be tackled successfully by educative and persuasive methods alone in a country where literacy is only 30% and even educated people are dominated by religious considerations?

Drastic reduction in death rate has resulted in population explosion. In spite of the F P programme since 1951, Indian population will reach a mammoth figure of 1000 million by

the end of this century. Our need for basic necessities is increasing at the rate of 31 million tons of foodgrains, 1.5 million houses and 160 million metres of cloth per year. Any increase in production is quickly nullified by more than an equal increase in population. Population is at the root of all social and economic problems.

Rapid increase in school age population and the expanding labour force have put an ever increasing pressure on available facilities and retarded improvement in every walk of life.

Population is a dependent variable to be considered within larger development concerns. Mandatory F P will help the country as a whole to utilise its resources to a better purpose.

—VIJAYA SHASTRI
M.A. (Final)
Nagpur

Law, the closest to panacea

Yes, immediately, we do not have any alternative. We have to choose between effective population control and ruin. "To wait for pure voluntary effort to produce any significant results in a predominantly illiterate country, with over half a million villages and inadequacy both of communication and of goods and services would doom our future", said Mrs. Jung wife of the Maharashtra Governor. She could not be more correct.

Illiteracy, poverty backwardness, unemployment and almost all social evils spring from the overpopulation problem. Leave alone linings, hardly a silver speck has yet appeared. In spite of the crores of rupees sunk in voluntary Family Planning efforts, not much has been accomplished. The aptness of this programme—growth rate increased from 1.5% per annum to a 2.5%—and if the people who matter keep it as diligently as they are now, they can expect to gift an overall one billion companions (most of them hungry) by 2000 A.D.

Clearly (not so clear for the majority) in such circumstances the right to unlimited reproduction is somewhat extravagant. Since results through persuasion have not influenced many people, we have to make it obligatory for them to stop at a limit. Social and religious factors which have stumped the voluntary F P effort to date will not be effective against mandatory F. P. The problem lies not in that most people are irresponsible, but in that most people cannot feel responsible due to lack of education and

awareness. Within a short period it will take us to doom unless Family Planning is made mandatory. It may not be a panacea for our ills but it is the closest we can get to.

—SUNIL TRAKRU
3rd Year MBBS
New Delhi

Legislation is Unavoidable

There is a proverb that even the Suras and Asuras are frightened of force. Since Independence, India has made much progress in a variety of fields. But 'the population explosion' caught the economists and the national planners napping. Even before all this happened the Family Planning was started in India. The death rate has gone low and the birth rate has almost trebled without any obstacles.

Almost all the countries, including China, USSR, Japan etc. are practising Family Planning. India's population is equal or may be even more than the combined population of the U.K., USA, Australia and Japan. We all know about the famous 'Malthusian theory of Population', but we pay little attention to it. If we do not take drastic and proper steps to curtail this 'Explosion', it will be too late later.

There are certain practical problems to encounter. India is ridden with age-old caste, superstitions and illiteracy. There are some anti-social and anti-national religious bigots, who being afraid of becoming minorities, are already blocking progressive policies. All persuasion has resulted in failure. There is acceptance of the compulsory sterilisation by some of the state governments.

There is no alternative left with the government but to make sterilisation compulsory after the third child. Besides educative and persuasive methods like late marriages, sex, education and wide propaganda of various types in favour of Family Planning, all the increments and promotions should be subjected to the practice of F P by the employees of the Government, public and private concerns. New devices should be invented by scientists/doctors so as to detect the sex of the unborn baby in the womb and thus avoid the unwanted baby, which will be a boon to the parents. Instead of making the government servants always targets the rich and poor should be made the main targets. Most of the politicians themselves have unlimited children. Persons having more than three children should be denied tickets to contest in the elections. Ours being a secular

country no religious pretext from any of the minorities or majorities should be listened to.

—SUNKI LUXMINARAYAN
Bombay

The Only Way

Statistics say that we are adding three babies every second. This brings a train of worries to our economy. We were only 38 crores in 1951 and became 44 crores in 1961 and we exceeded 55 crores in 1971. The death rate has come down due to eradication of epidemics like plague, cholera and malaria. So, both ways it has worked against us.

Therefore it is inevitable to make F P mandatory. Our government is spending a lot of money to reduce the rate of growth by making F P popular among the people. In spite of the efforts taken, we find that the population growth has not become less. Only a few lakhs of people make use of the facilities. The youth of our country also have started loving the comforts of life.

We find that population growth is higher among the poorer sections. They don't realise the importance of F.P. If we want to make them understand there are two possible ways. One is to educate them and teach the importance of F.P. but this will take a long time. The other way is to make F P compulsory. This is the only possible way to speed up results.

—V. RAMA SWAMI
B.Sc.
Madras

Compulsion is More Effective

The trouble is that there is no hard and fast rule to fix the size of the family.

Recently there has been a trend to speculate about the birth of male children. The more the male children, people think, the brighter the economic prospects. Waiting for a male child contributes to the birthrate. Another reason for the faster rate of growth of children in India is the low cost of bringing up children among the poor.

Since more than two decades, there has been loud talk on Family Planning with huge expenditure on the programme. But the curious fact is, a great percentage of the people know little about contraceptives and other preventive methods. Rural people tend to be averse towards Family Planning.

Unless the programme is made compulsory chances of the common man being influenced may be small.

—S.V. CHALAM
B. Com.
Nellore

The time has Come

Indians became aware of population explosion only after independence. Although we have developed our resources, the development rate is not keeping pace with the increasing population. This alarming situation has to be checked.

Our family planning campaign, now over two decades old, has not significantly brought down the birth rate.

This new era of discipline is a proper time to make family planning mandatory. If it remains voluntary, I do not think we can achieve our goal in the next 25 years or more. So, for making India economically strong it is very essential to make family planning binding on every citizen.

—SHIDU N. RAKTATE
M.A. I Year
Vidyanagari, Kahira
Bombay

Other Methods Have Failed

Yes, we should. For more than a quarter century, India has tried voluntary FP with incentives. Rupees four thousand million have been spent on this programme. The programme may not have been a total failure but the results are not encouraging. We are far away from the dream of demographers—zero growth in population. Even the periodical targets set by us are not being achieved. And paradoxically those who need FP most i.e., people below the poverty line are least ready to catch the message; while the intelligent, educated and those who are, in a way, better equipped to afford larger families are adopting birth control methods.

Some people might consider birth control unethical or inadvisable for various reasons. These ideas are not valid today. To counter these ideas public education should go on, health-care facilities should be increased and along with these, FP should be made mandatory to reach the target. It will also remove apprehension among those who accuse voluntary FP being responsible for upsetting the existing ratio among the populations of

different communities.

—V.N. AWASTHI
M.A. (Political Science)
Modinagar, U.P.

Way To Raise Living Standards

According to the census of 1971, the population of the country stood at 548 million and in 1973-74 the estimated population was 585 million. While India's population is about 15 per cent of the world population, its land area is only 2.4 per cent of the world land area.

Such a fast rising population jeopardises attempts at raising per capita income and standard of living. The policy of Family Planning Programme started officially in 1952, has not led to much progress. This is clear from the fact that in spite of the efforts of so many years only about 15 per cent of the couples in the reproductive age-group could be covered by the programme up to 1973. So far only 15 million of couples instead of 100 million have been protected. Thus we are still far from our target, and it may not be possible to achieve it within the stipulated time unless a law is promulgated for compulsory sterilisation.

—LAKSHMAN JEE SINGH
M.A. (Final)
Bodh Gaya

Will Avert Famine

The population of India has increased manifold and the standard of living has gone down terribly. If we have to reverse this process, we must have planned families.

Science has contributed a lot towards the rapid increase of population and has helped to lower the mortality rate. The result is that poverty and population are both on the increase in our country. The poor man has nothing to interest him outside the narrow circle of the family and continues to indulge in the pastime of producing children.

With the increase in population the shortage of food and other necessities of life has become a serious problem for a long time. Thus in the absence of preventive checks, natural or manmade, there is likely to come a day when there will be mass starvation.

Making Family Planning mandatory under such circumstances becomes absolutely necessary.

—AJIT SINGH
B.A. Ist Year
Rupar, Punjab

Yes, We Are Already Like A House On Fire

After carefully assessing the results of the family planning programme so far it seems inevitable that family planning should be made mandatory rather than voluntary.

It is indeed alarming to contemplate a population of 1000 million within the next 24 years. Even if the family planning programme meets with complete success the population will never be less than 920 million by the turn of the present century. With this rate of growth all efforts at socio-economic development will be of no consequence.

So it is the paramount duty of the government to put a check on this rate of increase, even if it has to take stringent measures. The time for the gradualist approach is now past. Methods such as compulsory sterilisation may come as a shock to many but the time has come when some personal rights have to be kept in abeyance for the larger good of the nation. Unrestricted population growth is like a house on fire; any action, even the most drastic, must be considered to put out the raging flames.

While taking drastic steps the government must not be oblivious to the root cause of population explosion. We must spread literacy and the status of women must improve. All this will come with time and further social economic advance. The steps undertaken so far to bring about social change should go hand in hand with other mandatory steps.

—ANIL DHOOPAR
LL.B. I Year
New Delhi

Yes, First Educate The Masses

The population problem is a very delicate and difficult one; it is complex and controversial, and overlaid with emotions. The population problem in India has reached a desperate stage. If population increases at the rate of 12 crore and 20 lakh per year as it does now the government can neglect it only at the peril of the country. Each of us should therefore be aware of the problem and consider the task of reducing the population growth as a national duty. But in an underdeveloped country like India, there are formidable barriers to adopting family planning. There are religious barriers, poverty of the people and illiteracy.

However, before making family planning mandatory,

the government has to tackle the problem of educating the masses. The educational strategy has proved very effective in lowering the birth rate in many foreign countries. So major portion of our fund for education should be allotted for primary and elementary education.

Meanwhile all the states could adopt the policy of the Punjab government by providing economic incentives and other facilities to those families having only two children. This has proved a very good method in bringing the family size down.

—(Miss) KEYA SENGUPTA
M.A. Economics (Previous)
Shillong, Meghalaya

Time to Compel Acceptance

Family Planning has now become the crying need of the hour. Ever since the launching of this programme over two decades ago, some results have been achieved, but much is still left to be attained. Much of the vast expenditure of the government in this regard is almost going to waste. People are yet to realise its value and accept it willingly. The mass education media has not done its work successfully specially in the countryside.

Every couple having more than two children should accept the FP, norm, including tubectomy and vasectomy. Necessary legislation should be made for every couple having more than two children to undergo one of these operations. It should also be strictly implemented among labourers and villagers who generally have a large number of children.

I feel the only way of making the Family Planning programme successful is to make it mandatory.

—MAHESH PRASAD SAH
Research Fellow (Deptt. of
Commerce)
Bhagalpur

Unfortunately, Yes

It is shameful to read such slogans as 'one for the husband and one for the wife' and many others which occupy the front page of newspapers.

It is somewhat disgusting to see this fall from good taste and the dignity that is associated with the Hindu concept of self-control. As early as 1925 Gandhiji advocated FP through self-control rather than imposed methods. But we have to look at it also from

another angle. Things have changed vastly in the last 30 years.

If India is to add an Australia every year and a Soviet Union every twenty-five years to her population, family planning movement sponsored by the State will become inevitable.

Family Planning has, however, become widespread among the educated 20% of the population but the rest continue to bring forth a full cricket team in their reproductive period. To the poor people an additional child means an additional pair of hands to work.

It is therefore necessary that FP movement should concentrate on this 4/5 of the population. It is twenty-eight years since independence and our population is growing steadily. This has only proved that the state cannot keep aloof from a problem which so greatly affects the nation. Thus Family Planning should be made mandatory.

—PRITI MATHUR
Inter II Year
Allahabad

Do It Immediately

Recently a meeting of representatives from a minority community in Bombay strongly supported the Maharashtra Government's plan to introduce compulsory family planning. They only voiced the sentiments of crores of Indian citizens who have realised the

Desirable, but not Practicable

The accelerated growth of our population puts heavy strains on every aspect of our nation's economy and also hampers the nation's vigorous efforts to alleviate poverty. Without effective control of births, millions upon millions will be exposed to a miserable, tragic life. There can be no serious social and economic planning unless the ominous implications of an uncontrolled population growth are understood.

Our Government which has favoured FP in principle and is following the western model will not succeed with a people who are too poor and illiterate to realise the implications of population explosion. We can get quick results if we strictly follow the principle of mandatory FP.

But as FP is not only associated with economic problems but also with social and psychological problems, there are many difficulties in making it mandatory.

dangers of a population explosion.

The growth in our population at a rate of 2.5% added 108 million human heads to our country in the last one decade. By 1991 our country will have to feed one billion mouths! Even though our food production is increasing every year, it is swallowed up by the increasing mouths and if the present trend is allowed to continue, India will remain poor for ever.

The steps taken by the Govt. to check this rapid growth have met with very limited success due to several reasons, the most important of which are better health conditions, mass poverty and ignorance. Some of the drawbacks of the Family Planning agencies such as failures of contraceptives and surgical operations and imaginative publicity are responsible for practical public response.

Since all attempts to curb the population growth through voluntary control have been unsuccessful and because any delay can be disastrous, it is high time that the Government came out with a programme of compulsory check on births. Mandatory FP must be implemented immediately.

—PHILIP ABRAHAM
B.A. Final
Poona

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ration will depend on the numbers in a family. That means, their business will be like that of agents of insurance companies.

If these incentives are tried along with the existing policies and if economic development is kept at a high level, we may break through the vicious circle without making FP mandatory.

—SANKAR MAJUMDAR
B.A. III., Midnapore College
Midnapore. W. Bengal

An Effective Alternative Suggested

To save democracy and planned development it is essential to make F.P. mandatory.

Our per capita income is as low as Rs 614/- (at current prices) and is 1/55th of the income of the U.S.A. However high the growth of national income may be the component that would go into capital formation will be reduced if population grows unchecked.

In India the rate of investment is very low. But the birth rate at 2.5% is disproportionately high. To provide jobs for the increasing millions investment has to be stepped up to 12 per cent. With about 40-50 per cent living below the poverty line, unchecked population will only increase the dimensions of poverty and unemployment.

Over-urbanization, slum growth, malnutrition which are now seen everywhere will be aggravated if F.P. is neglected. Besides, tensions and conflicts and hence political instability, stagnation in occupational structure, parasitic entrepreneurship and other evils will develop as a result of population explosion. So I suggest the following measures.

Family planning services must be incorporated into the general health services at primary centres.

Instead of diversifying F.P. control methods with steri-

zation, IUCD, Oral pill etc. it is advantageous to develop one method to achieve efficiency, and develop awareness among the masses through mass population education.

—B. KAMAIHAH
M.A. (Economics)
Nellore (A.P.)

It will not work in India

In India to inculcate the idea of the Small Family norm in rural areas is rather difficult owing to the fact that such ideas are thwarted by the misinterpreted traditional and orthodox minds. The belief that too many children would be an economic security to their parents in old-age is very prevalent. The non-Hindu Communities are of the view that proliferating into millions would strengthen their communal political strength.

For the success of FP in India instead of making it mandatory it is better to persuade the masses through proper education, and by driving away fear, apathy and aversion towards FP workers.

—P. RAMANAIAH
M.A. Final (Economics)
Indore (M.P.)

Make education mandatory

Spread of proper education among the people will be more effective than making Family Planning mandatory. We know that the urban people get more facilities for education than the rural masses.

The ignorant people cannot be expected to realise the gravity of the problem of population explosion. So the birth rate among them is high. If we make Family Planning mandatory among them, it may hurt the susceptibilities of the people who will find it difficult to believe that the Government has a right to interfere with their personal convictions in the matter.

In India rapid progress of

education, science and technology will spread the philosophy of Family Planning among the people. Once convinced, the people will be too happy to support the programme even when it is not made mandatory.

MISS ANIMA
BHATTACHARJYA
M.A. (Previous)
Barpeta (Assam)

Negative approach won't work

'It is the constant tendency in all animated life to increase beyond the nourishment prepared for it', wrote Malthus 180 years back and since then this has pervaded the minds of most demographers and planners. We are very close to Malthus formulating devices for 'preventive-checks' and the 'compulsory scheme' is a forward step in that direction. It is not necessarily the right direction.

The device would necessitate the diversion of financial, material and human resources from badly starved sectors like health services, sanitation etc. The same resources can well be used in increasing the medical facilities to both mothers and newborn children.

Further, it would lead to enactment of laws without enough resources to implement them, and 'regulations without effective implementation tend to destroy or lower all respect for the law'. One can well imagine how difficult it would be to implement this in a remote village without medical facilities.

We have enough experience of the Family Planning Programme, and success of the new programme in the present socio-economic conditions is bound to fall below expectations.

We should be pragmatic in formulating policies and social planning seems a much better step towards solving this population problem. Without a change in social and religious belief, improvement in standard of living, better distribution of national income, spread of education, change in status and social condition of woman we cannot hope to solve this problem. Mere preventive checks would prove too extravagant for us.

RAMESH SHARAN
M.A. (Final)
Ranchi

Educate the very young

India is a democratic developing country with barely

30 per cent literary and 80 % living in rural areas where social and religious taboos and traditions dominate. That is why it is not advisable to make it mandatory in India and other developing countries. The Government can make F P mandatory only at its peril. Its political repercussions are bound to be very serious.

The best way to solve the population problem is by creating public awareness about the population explosion and its consequences through the extension of educational facilities in rural areas, the recognition of women's status by providing equal opportunities in every field with men and the introduction of population education in educational institutions.

We find that in India about 40% population is below 15 years of age. So we can introduce Family Planning education at the school stage. This will develop an understanding of the close interaction of population growth and the development process with particular reference to the programmes for raising the standard of living of the people. Personal and national decisions concerning family size and population have long range consequences to the whole world. When these very students become adults, they will provide local leadership in villages and towns. This will have a multiplier effect on the solution of the population problem and the distribution of population among the different regions.

—C. RAMANAIAH
M.A. (Final)
Ravindra Nagar (A.P.)

Make Full use of Mass Media

On the success of the programme of family planning depends the very existence of India. Because with the gigantic increase in the population, various allied problems such as food, shelter and clothing which will crop up in consequence of the increase in population, cannot be met within the limited source which exists in India.

If the question of the programme of Family Planning is subject to a mandate from the electorate of whom the majority are illiterate and superstitious, nothing definite can be done to check the present growth. Most Indians do not bother about the future, if it is left to them and they will never realise, nor can we force them in a democratic set-up. Thus we are left with

THE NEXT STUDENTS' FORUM:

Should we have
Another Constitution?

LAST DATE : 30 JUNE 1976

only one course. Educate them through the mass media. Family Planning should not be made mandatory.

—RAJENDRA KUMAR MOHANTY
M.Sc. (Physics)
Bolangir

Compulsion Will Fall

The United Nation's International Conference on Human Rights declared that couples should have a basic human right to decide freely and responsibly on the number and spacing of their children. Mandatory FP, which goes against democratic values, violates this right.

The current world trend is to include in FP all aspects of population work-theory, education, infertility, prevention of conception and termination of pregnancy. All of them cannot be made mandatory.

Population growth rates and improvement of basic conditions of life are closely related. By tackling the latter we can reduce birth rate. In the western countries decline in



the rate of population growth has been achieved by free contraceptives supplies, free abortion, free sterilization. FP was not made compulsory.

Population planners ought to realise that programmes to be effective must be sensitive to the opinions of the people whose lives they seek to affect. In India social reforms imposed by law, e.g., prohibition, ban on dowry or untouchability have failed to bring the desired transformation. People are not willing even to raise the age of marriage. The son, many believe, is a gift of God, and is essential for salvation, for security in old age. Two children are not enough, more are desirable as helping hands, insurance against accidents, etc. The difficulties in implementing the law as proposed by the Chief Minister of Maharashtra (to penalize the person after the birth of a third child) are so tremendous that the desired goal will not possibly be achieved.

The solution to population problem, I sincerely believe, cannot be achieved by compulsion but by education and cooperation. By helping women improve their condition, a dual task of satisfying a human right as well as a demographic need is served. Fertility assistance could be linked with education and employment of women.

The minds of people should be transformed first, and then only we shall attain the "Demographic Transition."

—ANIL SHASTREE
IV Sem. M.E. (Mech)
Bangalore

Law to Limit Children Impracticable

There is little need to emphasise the fact that India has a population problem of enormous magnitude. Propagation is the law governing living beings. According to the church, self control is the only reasonable way of birth control. But it is not easy to make an illiterate man realise the need for self control.

Our Prime Minister has rightly said that the idea of enforcing by law a family with two children is a bit drastic.

The first and foremost cause of our failure is mass illiteracy. There is need for greater publicity and properly trained workers in rural areas to propagate F.P.

There must never be any compulsion on the public, as it will not only go against the principles of democratic Socialism to which we are committed but will be unethical and liable to annoy most of our people.

The best course would be to launch a vigorous drive and warn the public against the dangerous consequences of population explosion.

At the same time, it is the duty of the educated persons to create a healthy public opinion in a country of many religions and beliefs like ours.

—R.P. ALHA
M. Com (Prev.)
Ajmer

Don't Blame Population : Blame Planning

Why should we go for family planning at all when China claims that it is short of human power even with its 800 million people? No hand is free in China, it has done much to utilise its huge human power and has brought a 'great leap' in its gross national production and no belly

remains hungry now.

But we face the population problem due to our faulty planning. We have not created employment potential for our masses and our GNP lags behind. To employ the masses India has no dearth of intellect and resources even if the population gets doubled.

Why should we give up our long tradition for Democratic approach? Having more than 3 children will not create pressure for well-to-do persons in society. Poorer people on the other hand welcome more children which means—more earning members in the family. Many parents also do not dare to go in for birth control because of the fear of child-mortality. Also, sterilisation operations many times cause serious consequences to the men or women. There are many social and physical factors going against the idea of family planning.

Lastly, our Indian culture, all through, has maintained a regard for humanity, emotions, maternal love and family life. And let it not get deteriorated by all these pressures and compulsions.

Mother Teresa said at Panaji, that she is against making birth control compulsory. But the Union Health Minister Dr. Karan Singh emphasised the need of some compulsory measures for birth control. Let the Government take note of our beloved PM's comment that, "it will be too drastic a step."

—TUSAR N. MOHAPATRA
Bhubaneswar

Educate them and they will opt for a Baby Car not one more Baby

In my opinion, we should not make family planning mandatory. We can reach the same goal by persuasion. We should explain the advantages of family planning among the literate and ignorant people. Ignorance is the root of all evils. Ignorant and illiterate people have generally a large number of children. They believe children to be God's dispensation, and do not want to interfere with the work of God. This wrong idea must be uprooted. There are many ways in which we can educate them with examples drawn from life.

Education makes for a high standard of living. When they are sufficiently educated you can offer them a choice between an additional baby or a baby car. They will definitely choose the latter.

—ASHOK KUMAR SINGH
IV Year (Economics)
Arrah

It is not Necessary

In India about 50,000 babies are born every day and around 13 million every year. Over 600 million Indians subsist on a mere 1.5 per cent of the world's income. India has one-seventh the area of the soviet union, but has more than twice its population.

Japan has achieved a 50% fall in births by high motivation and persistent education. Like the Japanese, the chinese also have achieved considerable success in this sphere.

Our targets and methods must change. It should be something like this: maternity and childwelfare, nutrition, care of pre-school children, sex-education in middle and high schools. Family planning, social programmes such as those to promote late marriage and spacing of children, raising the status of women and social insurance for small family couples.

Raising the age of marriage may not have the same bearing on fertility as would appear at first sight but there is everything to be said for legislating on this, making it 18-20 for women and 22-25 for men. India's birth rate might be



reduced by as much as 30 per cent by 1991-92 if all women married after the age of 19 years.

It is not necessary in India to make family planning mandatory.

—PRAMOD K. PATTNAIK
B.A. Student
Government Angul College,
Angul

Mandatory : Is this freedom ?

Mandatory family planning? State interference even in family life? Is that freedom where the most personal and intimate affairs are to be controlled and "administered" by the State? Are we not human beings with an independent wish and mind of our own? The mere idea of converting us into performing animals and to be told: "New

perform, the state desires one more of the human species." Disgusting!

I certainly agree that families should be planned, but is it necessary that the state determine how it should be planned? I can afford to have four, but the state says, no, only two. . . . This will surely affect the psychology of the family. Psychological disharmony disrupts many a family and we must remember, that on a strong foundation of family life the society is built. Break that foundation and the society crumbles to dust. Can a country survive on such a shaky foundation?

Instead, leave the family alone, give persuasive information and advice, lift the veil of ignorance and combat the mortality rate. . . . the benefits of a small family will then become obvious to all.

What we need is not mandatory family planning, but channelising the superfluous manpower into various constructive work. . . . roads to build, forests to clear, even deserts to water. . . . need more be mentioned? The state could also channelise its energy in the fields of procurement and proper distribution.

Mandatory family planning would involve the widespread use of contraceptives both legally and illegally and this would be morally disastrous. So I say, please, let there be peace in the family?

—DEBABRATI DUTTA
Kismat College, Shillong

Prepare people for compulsory Family Planning

The real question is whether making F P mandatory will solve the problem of population growth. It is true that population explosion can be checked only through family planning but if alternate remedies are not given an adequate trial, it will have very little impact over people's minds. Instead, it may result in dangerous consequences.

The birth control programmes were launched since 1951 but by now only 20 million out of 100 million couples in the reproductive age group have been covered. The publicity drive by the government about family planning has been spectacular but it has had little influence on the rural masses where population growth is very high. The success of family planning depends entirely upon the awakening of rural masses and this can be achieved only when we take proper note of their social and economic condition. Illiteracy, antiquated superstitions, ossified traditions,

unfounded fear and suspicion, lack of consciousness about family planning, lack of foresight, etc. are some of the important reasons which keep them backward and uncooperative. Without careful study and removal of these inhibiting factors compulsory FP may not have the desired results. Instead, compulsory sterilisation may produce discontentment and fear among them.

—JAI PRAKASH
3rd Year (Elec.) Bhagalpur

No, people without education will resent it

In the last A.I.C.C. meeting at Kamagatamaru Nagar, Central Health Minister, Dr. Karan Singh urged that this year may be celebrated as a no children year like the International Women's year. In rural areas even now many believe that child is the gift of God. A large number of people have not even had the benefits of primary education. So, they cannot appreciate the importance of birth control and FP.

Although our government has made an earnest attempt to make a success of family planning, we are still faced with the question: "When will we reach the target of zero growth? There are many, including urban middle classes who believe that it is not right to interfere with the natural process.

The general impression of the the people is that all this hullabaloo about F P is just government propaganda. In my view when people are still to be convinced about the need for controlling the population growth rate, it is not advisable to make it mandatory.

—NARAYAN PAUL
CHOWDHRY
M.A.
Tripura North

It will lead to harassment

In India, where population growth is alarming it is an absolute necessity to control it by means of F P.

But family planning should not be made mandatory because of some reasons.

Firstly, it affects the tradition and culture of Indians. We may say that it is meant to ensure development of the country; but, we cannot forget that the majority of people will not like to be compelled because of religious and other considerations. Secondly, sterilisation may affect the health of the poor and hard-

working people who depend for their living on the work they do. Thirdly, compulsion will encourage petty officials in villages to exploit and harass innocent people. The government has ordered the officials and teachers that they should bring a certain number of people under sterilisation or vasectomy. So, these officials and teachers force the villagers, illiterates and young fellows and cheat them. So, family planning should not be made mandatory.

But the government can induce the people through mass media to adopt F P methods. Family Planning should not be made mandatory in India.

R. NANDA KUMAR
B. Com. (II year)
Thanjavur

No, we should not

India is democratic, developing, with a seething population which is rustic, illiterate and tradition minded. It is not easy to break through social and religious taboos against contraceptives. The government can make family planning mandatory only at its peril. Its political repercussions are bound to be very serious, when people are swayed by religious beliefs and superstitions. Even its physical and psychological effects can be dangerous for the mother. So the government must think of other cheaper and safer methods of birth control.

The best way to solve the population problem is to educate the people in rural areas, improve women's status and introduce population education in educational institutions. About 40 per cent of the population is below 15 years of age. So we can introduce the population education at the school stage, this will develop among the younger generation an understanding of the problem in all its aspects.

Personal and national decisions concerning family size

and population have long range consequences to the whole world. Moreover, when these students become adults, they provide local leadership in villages, towns, and cities. So we should not make family planning mandatory.

— C. RAMANAIAH
M.A. (Final)
Nellore

Mass education is the answer

India's population is continuously increasing and we have to bring down the birth rate from 42 per thousand to 23 in the near future. It is now well known that Government's efforts in all these 25 years have not borne satisfactory results. Now the time has come to adopt more drastic measures to accelerate the FP programme. Increments and promotions may not be given to those persons having more than three children or there can be a tax-policy for people not following the F P programme. But how to tackle the rural poor who are in a majority? Rural people have limited wants and mostly they satisfy their wants by their own efforts. In spite of this, for the welfare of the country in the long run, birth-rate in the rural areas must also be reduced. Efforts should be made to uplift the village woman whose present role is no better than that of a child producing machine.

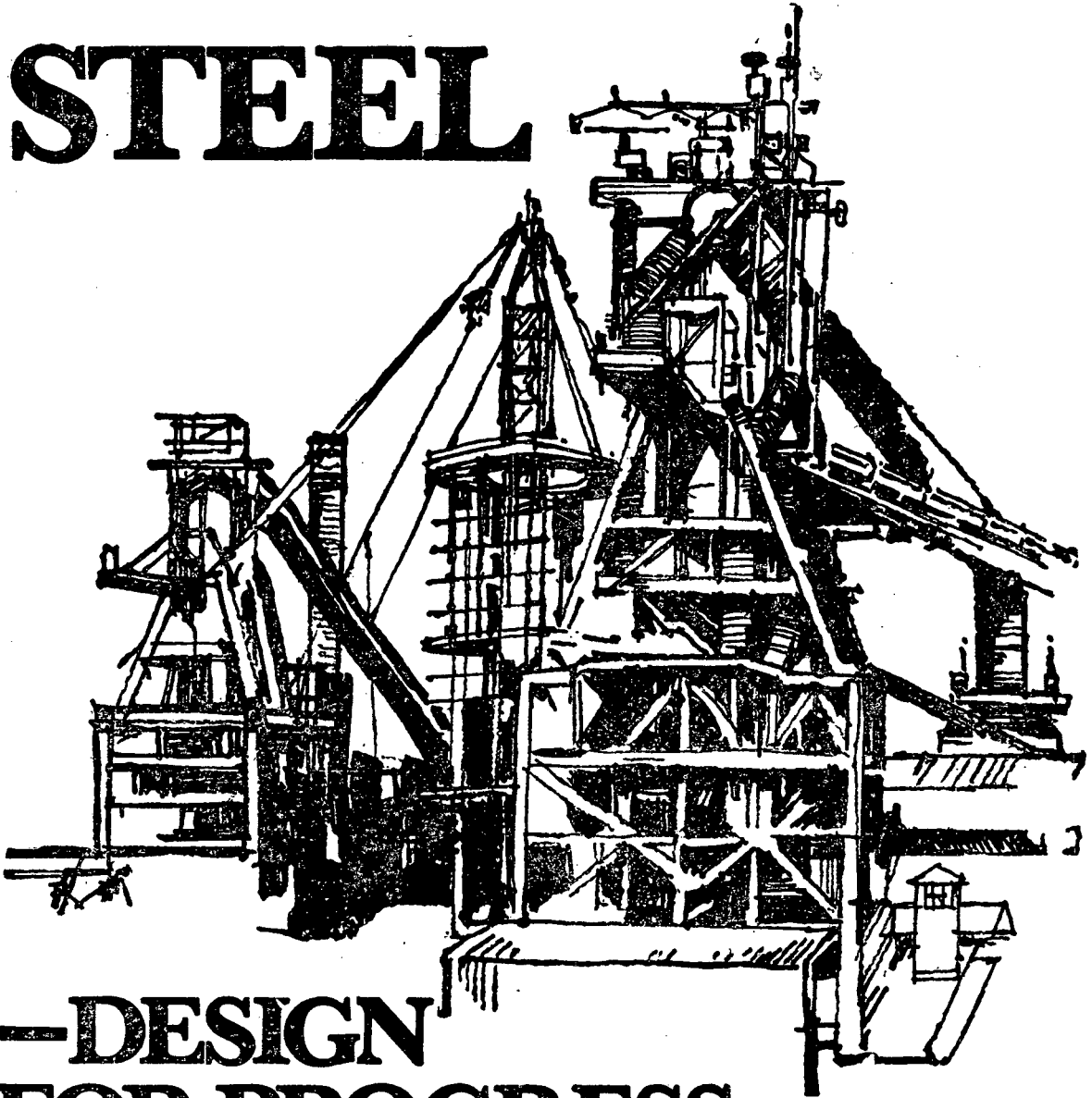
If the F P programme were to produce results, the overall strategy needs to be changed. Education of the masses must be given top priority. It should begin at the grass roots.

Efforts on a much wider scale, as part of a national programme of basic changes are needed.

MAHENDRA NATHU-
RAMKA
M.B.A. (Part I)
Jaipur

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BUDGET OPINION

This year's budget has been unique inasmuch as it spares the common man of the back-breaking burden of taxation, lowers the rate of wealth tax, income tax at all levels and is growth-oriented.

In its last issue Yojana carried an over view of the budget by prominent economists, traders, businessmen and journalists. This is the second and final instalment of their valuable comments.

A Growth Oriented Budget

Dr A.N. DUTTA

RESEARCH OFFICER, INDIAN CHAMBER OF COMMERCE, CALCUTTA

THE Central Budget has been significant in more ways than one. Proposals for taxation and expenditure are designed to stimulate growth and generate resources faster. Reliefs in personal income tax, wealth tax and excise duty will generate personal saving and stimulate consumers' demands. The proposed increase in development outlay and the 25 per cent new investment allowance are steps in the right direc-

tion. But the Budget proposals lacked the much needed incentives to boost exports when sufficient opportunities exist to explore the international market. While the economy is now more stabilised than before, the discontinuance of Compulsory Deposit Scheme would have triggered off another boost to the consumers demand in the economy. Similarly, excise duty reliefs should have been extended to

many other growth industries.

A significant increase in public sector investment is on the cards. Adequate incentive should have been given to the units in the private sector to enable it to register faster progress. With a view to restore the health of the capital market some direct tax incentives were necessary. On the whole, the Budget is investment and growth oriented and is thus indicative of a fresh approach.

A Chance Seized With Both Hands

A. N. PRABHU

SPECIAL CORRESPONDENT, ECONOMIC TIMES, NEW DELHI

THE most notable feature of this budget is its unprecedented step up of 31.6 per cent in Plan investment. This magnitude of investment is sought to be achieved by a series of tax reliefs all along the line, and with the lowest tax effort (r. 80 crores) in recent years.

It is a most pragmatic budget with traditional features of carrots, that is to say, incentives to save and invest. He was also emboldened to make far-reaching changes in the direct tax structure. Yet he has left a staggering overall uncovered gap of Rs 320 crores for 1976-77.

Mr Subramaniam's miracle was possible mainly because of the impounded money of over Rs 1,100 crore deposited from the wage-earning class. This bold step has been responsible in the first instance for breaking the vicious price spiral of the early 1975-76 months.

The maximum marginal rate of income tax from 77 to 66 per cent including the surcharge is a very pragmatic step, a continuation of the trend set earlier with encouraging results by way of tax collection. The tax rate has to be realistic and reasonable. It has to conform to the principle that each pays according to his capacity and rewards the honest and the hard working for paying the tax dues.

The underlying philosophy of the budget, therefore, is to widen the tax base bring the maximum to a realistic level. Undoubtedly, the past it was a difficult proposition. It is hardly surprising that in the prevailing atmosphere of discipline, Mr. Subramaniam seized the opportunity with both hands.

There is now no room for complaint except for the incurable few who would not like any tax at all or

those who would like the maximum rate brought down to 50 per cent! The latter may yet find the day coming if they deposit every single paise that they owe to the exchequer.

The striking feature is the highest-ever public sector outlay in 1976-77—an increase of Rs 1,885 crore—which should bring cheer to the industries complaining about recession. This level of investment will undoubtedly impart a new dynamism to the economy as Mr. Subramaniam puts it. Growth is the crying need of the hour, and in a year of price stability, after a gruelling 30 per cent inflation, the time could not have been more appropriate for the purpose. The investment in real terms will be more. This should substantially make up for the erosion in value of the rupee and cost escalation of a number of vital projects in the first two years of the fifth Five Year Plan.

Both Economic Survey and the Finance Minister have warned against increase in the supply of created money. The overall deficit of Rs. 3200 million should, however, be viewed in the context of a regime of price stability, coupled with comfortable food grains stocks with prospects of a better rabi crop. Above all, the Finance Minister's confidence is well placed in the all-round discipline in the country.

A rough estimate has shown that the corporate sector will benefit to the tune of Rs 960 million in a year from the concessions and modifications in the budget. These include: (i) lower tax incidence amounting to Rs 400 million on account of the elimination of surcharge for an equivalent deposit with the Industrial Development Bank of India (IDBI); (ii) Rs 40 million by way of higher standard deduction allowed for large (profit-making) companies; (iii) modifications in the allowable charges under various heads such as entertainment allowances and donations to social causes, expenditures on residential accommodation for employees to the tune of Rs 100 million; (iv) investment allowance totalling Rs 450 million and (v) lower tax on capital gains amounting to Rs 30 million. ("The Economic Times" research Bureau Study: March 19, 1976).

Having laid this groundwork, Mr. Subramaniam may rightly draw satisfaction that he has set the course for growth much-needed to help the weaker sections of the society.

Mr. Subramaniam has also circulated, along with Budget papers, a "strategy for integrated rural development" but though his heart is close to agriculture, a positive overall agricultural policy is nowhere to be found in the Budget.

A great deal of uncertainty in the economy stems directly from the chronic food shortage—the notorious good-weather following-bad-weather cycle—creating considerable imbalance. It is presumptuous to believe that irrigation facilities or inputs *ipso facto* will reach the bulk of the farmers whose potential for growth can be ensured only if we remove uncertainty in the falling prices, specially in the context of adequate buffer stocks. It is clear that the machinery set up is unable to give support purchases even at the minimum prices. The richer farmers being able to hold on to their stock, the real sufferers are again the small and marginal farmers who have to dispose of their little surpluses at whatever prices they

may get at the first instance.

Side by side with the public procurement agencies gearing up their effort, the Government could also have allowed free movement of food grains so that an equilibrium both in terms of supply of prices could have been maintained. The farmer has a rightful grievance that while industrial products freely move from place to place, fetching the best price, his product is held in check by artificial barriers and denied an all-India market. This handicap is only for food grains, and not for cash crops. He should not be penalised for growing food grains vitally needed by the nation.

The Budget also makes no reference to the need for mopping up the windfall gains of the richer farmers though it is widely believed that they pay hardly anything of the gains to the Government coffers.

Thirdly, the Budget hardly has given the importance it deserved to construction activities. With the disappearance (one hopes permanently) of the smugglers, and with them the black money to a large extent, construction area has assumed great importance. The ceiling on urban land also had brought construction activities to a standstill worsening the already worse housing facilities in the cities besides creating

serious unemployment problem in the unorganised labour class. These classes are not covered by laws against retrenchment or the industrial disputes act.

Mr. Subramaniam should be congratulated for the judicious use of excise in respect of such "small luxuries" of the common man as water coolers (think of the scorching summer) and for reducing the levy on refrigerating and air conditioning appliances and machinery when used in factories, hospitals, computer rooms, research and test laboratories; animal houses, telephone exchanges trawlers and cold storages. This should go a long way in helping the industry. He has also not touched common variety of cigarettes, nor changed the duty on dry cells and blades. He has also introduced a scheme of insurance for workers.

An X-ray of the Budget can show many a skeleton: no work, not the least, the complex job of making a Budget, can be perfect, satisfying all sections. Mr. Subramaniam has done his best, unconcerned over the possible fireworks in Parliament for adopting a pragmatic approach. One would like to share his optimism, and wish him the very best in hoping a better tax return in 1976-77. □

Open The Rural Market

KALYAN DUTT

READER JADAVPUR UNIVERSITY, CALCUTTA

IN preparing his budget, the Finance Minister seems to have been more concerned with warding off an impending recession than maintaining the disinflationary process that has just started.

For the last two decades our industrial sector has been geared to the needs of the top ten per cent of the society including the owners of black money. The system naturally got a jolt when government came down with a heavy hand on black-money owners and impounded a part of income of the upper groups of earners. Prices started to fall, blackmarkets vanished but alongside, recession loomed round the corner. Our economy is thus confronted with a dilemma between inflation and recession and it remains to be seen if the Finance Minister can take the bull by both horns.

The Finance Minister has been fortunate enough in having good monsoons in 1975 and a prospect of 114 million tonnes of foodgrains.

This, combined with a good buffer stock position will help keeping prices down. This will also reduce food imports and save foreign exchange. Another source of saving on foreign exchange may be lower import of fertilisers, since the off-take by farmers has not been as much as expected. This is therefore, the right moment to push ahead with public investment and the Finance Minister has correctly done so. The order of public investment might even be stepped up, commensurate with the organisational capability of the public sector.

The allocation of developmental expenditure has been in right direction. The crucial task now is to implement the programmes and it is to be hoped that the respective ministries would rise to the occasion.

One should however keep a close watch on the price situation. In India where weather still dominates economic activities, any deviation from normal rainfall conditions may

let loose speculative forces, and the tendency to hold back grain. The government should have utilised the present bumper crop year to expand public procurement and public distribution systems. Unfortunately, there is no such indication in the budget.

On the other hand, the increase in agricultural production this year has led to a reversal of the price trend against agriculture. Urban consumers are getting agricultural goods at prices lower than in previous years but the rural consumers are not getting industrial goods at similarly lower prices. Small peasants who have to sell at the low prices and buy manufactured goods at relatively higher prices are the sufferers. Government should, therefore, provide incentive prices immediately after harvests, when small farmers mostly sell, and gradually bring down the procurement prices at later periods. Public distribution system should be extended to the rural areas and it should include essential industrial goods like cloth, kerosene, sugar, edible oil, medicines etc.

These are not merely matters of distributive justice. If this policy is successfully implemented, a vast market will open up for industries producing mass consumption goods. One of the reasons why manufacturers concentrate on low volume and high margin quality products is that in a country with sparsely distributed rural population, costs of marketing mass consumption goods are high in relation to returns. Public distribution system of these goods will in fact be a subsidy to such marketing expenses. And manufacturers, when assured of a large rural market with less selling costs will reorient their product mix in favour of the small men in the village.

It would be worthwhile for the government to subsidise rural marketing in order to boost industrial production, as well as to help the rural poor to secure a better life. Sluggishness of industrial production that followed the anti-inflationary measures in 1964 underscores a basic imbalance in our industrial structure, namely that production is for the upper classes and not for the masses. So long as it continues to be so the dilemma between growth and justice, as also between growth and price stability will persist. The need of the day is to evolve a system which induces the manufacturers to earn profits by producing for the masses instead of limiting resources for the production of so called quality goods. Public distribution of mass consump-

tion goods will help to evolve such a system.

The reduction of excise duties on refrigerators, TV sets, aluminium, copper, plastic resins, water coolers and air conditioners will help to cheaper u-sector goods. This, combined with the income tax relief suggests that the Finance Minister is more anxious to stimulate the u-sector demand to ward off recessionary trends. But the recession

itself has been the consequence of our exclusive dependence on a small but affluent market, created by black money.

The question is whether we should widen the base to include the larger masses or whether we should relax the curbs on spending by the rich. Production may rise in either case. The former course would be consistent with democratic notions, while the latter would not.

A Welcome Budget

S. NILAKANTAN

JOURNALIST, NEW DELHI

IN STRIKING contrast to earlier years, Budget for 1976-77 has been received with wide-spread relief, and even acclaim, by the general public as well as by spokesmen of the business community. This is not surprising as the Finance Minister has brought off a near miracle by producing a budget which combines a massive increase in plan outlay with substantial reliefs in both direct and indirect taxes. Together they should give a big push to industrial production, savings and investment in the private sector which has been languishing for several years. Criticism is muted and confined those who feel that a little more could have been done to stimulate exports or the corporate sector, where it is not inspired by doctrinaire considerations. There may also be people who feel that the Finance Minister could have refrained from raising the taxes on medicines which hit the weaker sections of the population when they are most vulnerable. But no one who does not equate socialism with controls and penal rates of taxes will fault the budget for the reductions in the rates of personal taxation. It is true that relief given at the highest brackets is proportionately more than at the lower slabs of income. The tax concession works out to 11.6 per cent at the lowest slab, somewhat less at the next higher levels and rises to 15 per cent at the income level of ten lakhs per annum. But the moderation of the expropriatory level of taxes at higher levels of income which has prevailed for a number of years does not make the tax system regressive though the progression is slightly less steep than it was.

Two points may be made in this connexion. There is no benefit

to the economy or the exchequer in keeping nominal tax rates at an oppressive level thus providing a powerful incentive to evasion and creation of black money. The expectation that the reduction in the marginal rate of income tax would result in better collections, even a part from the drive against tax dodgers, has been justified by the experience of 1974-75 when the maximum rate was brought down to 77 per cent. There is no reason to think that the Finance Minister's expectation, that the further reduction, now announced, and on the basis of which he has framed his estimates of revenue, should ensure better tax compliance, will not be realised, especially after the Voluntary Disclosure Scheme has provided the opportunity to many who had evaded taxes to start afresh. Another important consideration is the need to leave some scope for generating savings for new investment in the private sector.

Those who protest against the tax reliefs are in effect asking for an embargo on industrial growth or for leaving it in the hands of those controlling illgotten wealth who may find it advantageous to undertake the risk of new investment. The Finance Minister deserves to be congratulated for recognising economic realities without allowing his vision to be obscured by ideological blinkers.

At the same time it is necessary to remain on guard against the inflationary potential inherent in an expansionary budget which is essentially growth oriented. The increase in plan outlay and larger disposable incomes will lead to substantial increase in money supply with the public. If the Finance Minister has been able to keep the uncovered

deficit at the comparatively moderate figure of 3200 million despite tax concessions and larger outlays, he has done so by transferring substantial chunks of expenditure from the Budget to the banking system. The latter will have to bear full burden of financing the food grain buffer stock as well as the operations of the fertiliser pool. The former will lead to substantial increase in money supply.

The increase in agricultural production would keep down prices and mitigate the inflationary impact of the deficit financing of the order of Rs. 3200 million provided in the budget. But it will also add to the burden of

holding massive buffer stocks procured out of indigenous production.

Government is thinking in terms of buffer stock of ten to twelve million tonnes. Since the food grains will be held in stock against future contingencies, the money flowing out to the farmers will not be counterbalanced by recoveries, and will add to the money supply. The increase may be of the order of 5000 million. Government also intends to borrow Rs 4800 million from the Reserve Bank out of the impounded deposits of additional emoluments. Another Rs 2500 million is expected to be repaid to the employees this year. All

these will tend to swell the money supply apart from expansion of credit required to sustain a higher level of economic activity.

The increase in money supply can reactivate the inflationary spiral unless it is matched by substantial increase in the production of consumer goods in the short run. The budget provides many of the concessions which have been canvassed for years by spokesmen of industry. It also presents the private sector with the challenge to justify its continued existence with a positive response to the opportunities now provided for stepping up investment and output. □

First Epoch-Making budget in history

N.A. PALKHIVALA

ADVOCATE, SUPREME COURT

THE Budget is truly memorable and it constitutes a landmark, since, for the first time, the Finance Minister had accepted, adumbrated and applied three basic principles to the Budget.

These were: Realistic rates of taxation were far better than confiscatory rates from every point of view. As the Finance Minister has said: "The majority of Indian tax payers would prefer to abide by the law and pay taxes as due, provided the tax burden is reasonable." The Budget constitutes a clean shift from fiscal theology to fiscal rationalism. In that sense it is our first modern Budget.

Secondly, there could not be social justice in a poor country like India without economic growth and, therefore, the accent had to be on economic growth with social justice. Thirdly, a dialogue with the interests affected was a desirable prelude to a growth-oriented budget. A budget should not be an annual scourge but should partake more of the nature of the presentation of annual accounts of a partnership between the government and the people.

The Budget has lowered wealth tax and income-taxes at all levels and 'it is to be hoped that we shall never revert again to the 2 year regime of expropriatory taxation'. The reduction in the rates of these taxes would leave individuals with an additional amount of Rs 1800 to Rs 2050 million. Of this, the continuation of the compulsory deposit scheme with increased rates would absorb about Rs 800 million leaving a net surplus of 1000 to 1250 million with the citizens

to spend or invest and thereby help the nation to fight recession.

The Budget, however, could have avoided certain drawbacks. First, it continued the tradition of the "incredible instability of our fiscal laws". The development rebate which was withdrawn in 1974 was replaced by initial depreciation which would now be replaced by investment allowance. Instead, it would have been better to revive development rebate on which the law had crystallised for over 20 years.

The chronic instability is underlined even in this Budget by the rationalisation of the tax structure

being stated to be in the nature of an "experiment" and excise relief in respect of increased production being proposed for only 'one year' in the first instance. The basis of assessment of non-residents has been sought to be drastically changed even in respect of existing agreements. A budget should ensure stability of the substantive law for an optimum period of five years and a minimum period of three years.

The Budget is growth-oriented but not sufficiently so to overcome the recession, promote exports and accelerate growth particularly in the capital-intensive sector.

In Tune With The Times

DHIREN BHATTACHARYYA

PROFESSOR, CALCUTTA UNIVERSITY

THE first impression that one gathers from the budget proposals is that they are in tune with the times. Assuming, that industry badly needs fiscal incentives to get back to growth rates achieved in the early 1960's, the package of proposals included in the budget is eminently justified. Whether this package will be adequate for an industrial revival comparable to the one achieved during earlier years and, more importantly, whether the revival that will come about will be of the type desired, only the future can tell. It is significant that in spite of various provisions for tax-relief to the private sector, the Government regards an increased Plan outlay both feasible and

desirable. The Finance Minister has discounted the chances of another inflationary resurgence. In the light of our experience over the past nine months this is by no means unreasonably optimistic. But constant vigilance has to be maintained over the gross investment expenditure level and appropriate counter-measures held in reserve against inflation.

An encouraging feature of this year's budget is that the anomalies in the structure of indirect taxation in the country have at long last been recognised and certain corrective measures have been introduced. Moreover, an Inquiry Committee will also be set up to go more deeply into the question. □

Rebates for Disabilities

P. A. SESHAN

ECONOMIC EDITOR, THE 'HINDU'

FOR the first time in recent years, the Union Finance Minister has adopted a bold approach when formulating the budget proposals for 1976-77. The temptation to levy fresh taxes for financing a larger Plan outlay was irresistible. But new taxation will be on the smallest scale in recent memory. If the 'loss' in revenues on account of the lowering of income tax rates in respect of individual assesseees, the reintroduction of the development rebate in a different form for selected industries and the waiver of surcharge on corporate taxes in the event of the assessee agreeing to deposit an equivalent amount with IDBI is taken into consideration, the Government will actually be shedding revenues for a sizable net amount. It is expected however that there will be brisker assessments and collections and as in 1975-76, budget estimates for the next year will be comfortably exceeded. The changes in excise duties are also conceived rationally and with revival of demand for many excised products, the revenue receipts may be quite satisfactory.

The problem of overcoming the adverse efforts of higher capital costs, when implementing new and expansion schemes, has not however been tackled as energetically as anticipated. While it is true that development rebate has been reintroduced on a uniform basis for select industries and funds will be made available for implementing modernisation schemes by the export-oriented industries like sugar, cement, cotton textiles and jute, there will still be disability for new industrial units or those implementing expansion schemes on the basis of current costs. Except in the case of the sugar industry, where special concessions were recently announced in the form of excise duty rebates and changes in the content of quotas for levy and free sale sugar, there has been no extension of these incentives in the same or similar manner to other industries in the priority sector. The fertilizer, cement and tyre industries, to mention only a few, have peculiar difficulties where heavy expenditure has been incurred on new projects. The rebate in excise duty in respect of 'excess' production to the extent of 25% is perhaps conceived to be some sort of a relief to these units. But the

scheme will be in force only for one year for the present. It is perhaps expected that differential prices will be fixed for the products of new industrial units on the basis of the recommendations of special committees.

What is however significant about the budget estimates is the financing of the increase in Plan outlay of over Rs 1,000 crore in the Central sector with considerable savings out of current revenues, and leaving only a small uncovered deficit of Rs 3200 million which works out to less than 3% of the total of the revenue and capital budget. The mobilisation of resources has of course been facilitated by the utilisation of

Rs 4800 million out of the blocked deposits of additional wages and dearness allowance with the Reserve Bank. This will not be inflationary in the present context as there will also be continuing immobilisation of additional D.A. for one more year. It will, however, be possible to raise larger amounts through open market loans and generate also larger resources of industrial undertakings in the public sector. The step up in Plan outlay and the improvement in the capital market following the lapsing of controls over dividends in July as scheduled and the grant of new concessions should result in a considerable improvement in the complexion of the economy especially if agricultural production can be maintained at satisfactory levels in the next season as well. The new budget may then turn out to be highly helpful in ushering in a new phase of dynamism in the economy.

A Great Leap Forward ?

Prof. C. JOHN

SCOTT CHRISTIAN COLLEGE, NAGERCOIL

THE Budget raises great hopes regarding the future growth of the Indian economy. When the Fifth Five Year Plan started there was very little hope that the ambitious plan could be fulfilled in the five year period.

The emergency declared on 26th June 1975 has had a very beneficial effect on the economy. This is due to the steps taken to control the prices and increasing production.

To take advantage of and consolidate the gains of emergency and the twenty point programme the budget has reduced the direct taxes substantially especially at the higher level so that there will be growth in private savings and investments. There are several reductions in indirect taxes on commodities also and these concessions will help in the expansion of many industries facing recession due to steady decline in demand on account of high prices.

The central Budget provides Rs 1,290 million for power development and part of this is for Inter State Transmission lines which will go a long way towards remedying regional and local seasonal shortages of power. The state plans provide Rs 12,000 million for power as against Rs 9,830 million in 1975 to 1976. Additional power generation of 2,500 megawatts will be

achieved as against an achievement of 1,800 megawatts in the current year. This again will be another significant step in the fulfilment of the 20 point programme.

Production of petroleum is to increase from the present level of 8.2 million tonnes to 9 million tonnes. For the development of coal mining Rs 2,770 million has been allotted and the output is to be raised to 108 million tonnes. These will help remedy the fuel shortages and make the base of the industrial structure secure from the vagaries of shortages of fuel and power. Rs. 200 million has been provided for the cement corporation projects. To avoid the development of transport bottlenecks adequate provision has been made for the expansion of transport and communication facilities. Rs 5,970 million has been allotted for this purpose of which Rs 2,710 million is for Railways which have their plan for Rs 4,110 million.

For the development of the steel industry which is playing a growing role in exports, Rs 4,020 million has been allotted and there is to be significant progress in the Kudremukh Iron Ore Project which is fully aided by Iran. This will be of substantial help in the export trade. India has achieved significant

progress in exports in the current year inspite of decline in world trade and so it is reasonable to expect that there will be further growth in exports by about eight per cent in the coming year.

Taking all these into consideration and the possibility of developments in the Private Sector due to the favourable changes in taxation policies it is possible to expect a great leap forward in the Indian economy during the year 1966-77 as a result of the farsighted budget proposals. Its implementation will release the forces of development in the private as well as the public sector and usher an era of fast growth.

Means Bigger Effort

R. VENKATARAMAN
EDITOR, SWARAJYA

THE Budget contains three important aspects, namely, relief in direct taxes, to the taxpayers groaning under the double load of inflation and tax burden; reduction of prices and consequent stimulation of demand to combat the recessionary trend in the economy; and revival of savings and investment for the healthy growth and development of the nation. The Finance Minister Mr. Subramaniam has achieved all the three objects with commendable skill and wisdom and has set the country on the road to recovery and progress.

Thanks to the economic recovery witnessed in the current year, it has been possible to take a leap forward in the Plan allocation for the year 1979-77. A 31 per cent increase in the Plan expenditure over the previous year is unprecedented and could hardly have been envisaged two years ago when the country was in the tightening grip of inflation. The bumper harvest of 114 million tonnes, the improvement in industrial production, the de-bottle-necking of transport hurdles and above all, the consistent fall in prices have all contributed to the formulation of a bold and imaginative plan. The provision of funds does not ensure success in Plan performance. It will require concerted effort and a great deal of devotion to implement the plan of Rs 7800 crore. The plan, in real terms, is really bigger in view of the continued fall in wholesale prices and therefore it will call for the greatest effort from all concerned in its implementation.

Swinging the Ball

Dr. K. GANESAN

CHIEF PROFESSOR AND HEAD OF THE DEPARTMENT OF ECONOMICS, VIVEKANANDA COLLEGE, MADRAS

THE budget of 1976-77 provides the much needed shot in the arm through its refreshing and realistic approach to accelerated growth with stability and social justice. Never before a link so close as now was established between the implementation of Plan objectives and the Budget. The coordination between the annual Plan adopted as a meaningful part of the whole framework of the Five Year Plan and the bold, growth-oriented fiscal measures now ushered in, has at long last reinstated the Budget to its pedestal of being a major instrument for planned development and growth.

The saying goes that Time and Tide wait for none. The Finance Minister has once again proved that he is a man of action by at once taking advantage of the tide that now exists in the affairs of our nation—the conducive political and economic environment,—that prevails now, thanks to the Emergency. Riding at the crest of such a tide he has ushered in a series of fiscal measures, both direct and indirect, favourable to the private sector such as the

replacement of the present scheme of initial depreciation allowance by that of investment allowance for priority and export-oriented industries, the reduction of capital gains tax in respect of long term capital gains, the exemption of interest received on long term loans by the scheduled banks granted to industry from interest tax and the like. Through these measures, he has silenced successfully the critics who usually come out on such occasions with the criticism that our mixed economy is in effect no longer a mixed economy as according to them the private sector is being gradually elbowed out of the economic scene. The ball is now in the court of the private sector. Similarly the tax payers should not fail the Minister in his efforts to help them through the rationalisation of tax rates which he has undertaken with the fond hope that it would evoke far better tax compliance on their part. Here is a golden opportunity for them to respond to the gesture and encourage the undertaking of further concessional measures in the tax rates. □

Shifting the Burden

Dr. B. B. GHOSH

EXECUTIVE DIRECTOR CALCUTTA STOCK EXCHANGE ASSOCIATION LTD.

The industry has welcomed the Union Budget for 1976-77 as a bold step in the direction of stimulating savings and investment there by paving the way for accelerating economic growth. The increase in the annual Plan outlay by 31.6 per cent over that of 1975-76 is expected to have a multiplier effect upon the economy, leading to greater investment in both the public and the private sectors. The budget has, for the first time in about two decades, endeavoured to rationalise the tax structure with a view to improving collection and reducing evasion.

After a long time, reliefs in taxation have been sanctioned on a broad front and fresh taxation has been limited to a small sum of Rs. 55 crore. In order to induce fresh investment in the corporate sector in the face of rising capital costs, an investment allowance scheme for certain priority industries at 25 per

cent of the acquisition cost of new machinery and plant installed after March 31, 1976 has been introduced in place of the existing depreciation allowance.

Capital gains tax applicable for companies have been reduced and statutory deduction for purpose of determining the chargeable profits under the Companies (Profit) Surtax Act 1964 has been raised. The qualified exemption of the surcharge of 5 per cent on company income-tax should serve as a stimulant. Savings should be promoted with the reduction in the maximum marginal rate of personal income tax from 77 per cent to 66 per cent as well as with consequent reduction in personal income tax at all levels. The adjustment of indirect taxation is aimed at shifting the burden from the weaker to the affluent section of the society. □

REGIONAL REPORT

20-Point Economic Programme in Maharashtra

AVINASH GODBOLE

SOON after the declaration of the 20-Point Economic Programme, the State Chief Minister, Shri Shankarrao Chavan, had said that Maharashtra was determined to implement it before June 1976 so far as it related to the State. The steps taken by the State during the past eight months, amply substantiate his optimism. The Chief Minister has said on many occasions that the programme should be looked upon as the Geta of the present day "not only to be recited but to be translated into action".

A number of steps have been taken in the State to increase production, and procurement and to bring about effective distribution of essential commodities. Lowering of land ceilings, provision of house sites to the landless and weaker sections of society, liquidation of rural indebtedness and abolition of bonded labour are other points on which Maharashtra has scored notable success. In the case of agriculture, irrigation and power, special attention had been given with a view to make the State self-sufficient by the end of the Fifth Plan. For the student community, steps were taken to lower the prices of text-books and other stationery. The apprenticeship scheme is implemented with vigour.

Bringing Down Prices

Soon after the announcement of the Programme, the State Government had, after discussions with the manufacturers and the representatives of the trade, decided that 20 per cent of the production would be sold at the cost price through cooperative societies. There has been a significant fall in the prices of foodgrains, edible oils and soaps. The supply position is also satisfactory and the poor consumer has once again come into his own. With a view to ensure proper public distribution, the government has set a higher target of procurement—550,000 tonnes in 1975-76 against 270,000 tonnes procured in 1974-75. By December, 228,000 tonnes had already been procured. The Rabi crops are now coming to market and it is hoped that the State will be able to achieve its target.

Nearly seven million units were cancelled in the State's drive to eliminate bogus ration cards. The whole distribution system is being reorganised.

Record Production

On the food front, a record production of 9.5 million tonnes is expected this year and with the Kharif production of 6.5 million tonnes (900,000 tonnes more than the target) the state now hopes to achieve the target which is the highest in recent years. This achievement has been made possible by bringing additional area under hybrid and high-yielding varieties. During Kharif this year, nearly 1.7 million

hectares were covered under this programme.

In the Rabi season as many as 1.2 million hectares are being brought under high-yielding varieties of wheat. Eighty-six pilot projects of 400 hectares each have been approved for implementation through various agencies.

As many as 100,000 small farmers have been brought under the cooperative fold by making them members of the primary credit societies. One million more small farmers are planned to be enrolled. More than Rs. 160 million have been disbursed to these small farmers as short-term credit.

Economy in Government Expenditure

As a result of constant reviews, over 1,100 posts have been abolished with a saving of Rs.11.7 million annually. A similar review of plan schemes is also being undertaken. A number of state corporations are being disbanded with a view to avoid duplication and needless expenditure.

The Maharashtra Agricultural Land (Lowering of Ceilings and Holding) Act, has lowered the ceiling further thus rendering 22,484 hectares more land surplus.

The Government has decided to complete the distribution of its surplus land to landless persons by 30 June 1976. About 50 per cent of the surplus land will be reserved for allotment to the landless members of the scheduled castes, tribes and other backward communities. Over 4.1 million hectares of government land has been already distributed to economically weaker sections and to ex-servicemen since 1960. The State Government now supplies every landholder with a card incorporating all the details about his holding.

House-sites to the Landless

Maharashtra was the first State to take up a massive programme of providing house sites to the landless. The number of landless labourers eligible were 361,000 and over 356,000 have been provided with house sites by the end of January 1976. The State also decided to build houses for these persons and a target of 1,000 houses per district was decided. By January 1976, over 49,000 houses were constructed and allotted. The State hopes to reach the target of 100,000 huts by the end of the financial year. The programme is to continue in the next two years until all the rural landless provided with house sites get houses.

Bonded Labour

Bonded labour is practically non-existent in Maharashtra. However, to save *adivasis* from falling prey to moneylenders, a scheme of soft loans up to Rs. 250 has been evolved. The legislature has also passed a Bill making illegal any custom or tradition or agreement wherein a debtor or his family is required to work for his creditor. Besides, under the

State's prestigious employment guarantee scheme, every able-bodied needy person is ensured manual work.

According to a bill banishing indebtedness under certain conditions, marginal farmers having unirrigated land up to one hectare and annual income up to Rs. 2,400 and rural artisans and labourers in that income limit, get the benefit of total extinction of debt. The benefit is available also to workers having income up to Rs. 4,800 in rural areas and Rs. 6,000 in urban areas. The limit of land holding is not applicable to scheduled tribes, nomadic tribes and *vimukta jatis*. Over 28,000 persons were freed from debts, out of which 12,337 were from rural areas and 16,144 from urban centres. In order that these farmers do not go into debt again, it is decided to bring 100 per cent of rural families in the cooperative sector.

Minimum Wage to Agricultural Labour

Even before the announcement of the programme, the State had fixed the minimum wages for the agricultural labour which has benefited over 55,000 workers all over the State.

More Land under Water

One of the major aims of the 20 Point Programme is to bring an additional five million hectares under irrigation in the whole country. Maharashtra on its part has set before itself a target of bringing 585,000 additional hectares under irrigation in the next three years. With this end in view, critical review of the State's irrigation projects has been undertaken and a total outlay of Rs 111.9 million has been planned to create additional potential of 17,080 hectares by June 1976. The programme of energizing wells is also in full swing and since the declaration of Emergency, 21,049 pumps have been installed.

Power Programme

The Power generation at present in Maharashtra is between, 1,700 MW to 1,750 MW with an installed capacity of 2,195 MW. Due to various steps taken by the State, an additional 540 MW power generation capacity will be created by June 1976, out of which 300 MW will be from hydro stations and 240 MW from thermal stations.

Help to Student Community

For the student community, the State Government has been supplying foodgrains at the rate of 12 kg per month to government and non-government hostels numbering 1,376 covering over 58,000 students. Students are encouraged to form cooperative stores, the State providing them working capital of Rs. 4,000, provided the students collect Rs 2,000 from amongst themselves. Another facility which the students get is the supply of most of the textbooks at controlled prices. The State Bureau of Textbooks which publishes most of the school books, has only this month decided to reduce the price by seven per cent. Exercise books are also supplied at controlled prices. Book banks have been established in 224 colleges and over 200,000 students are benefited.

Similarly, 1.5 million school students are also getting the benefit of book banks. During the past four months, it is understood that students' hostel bills have gone down by about 10 to 15 per cent. The scheme of apprenticeship is being pursued with vigour. As against the target of 11,681 placements, the government had provided 14,409 apprenticeships in the State.

20-Point Programme Makes Headway

THE 20-point economic programme announced by the Prime Minister, Mrs. Indira Gandhi, has made deep impact in West Bengal. A number of measures have already been taken to ameliorate the lot of the common man and some more are under-way.

The current buoyancy in agricultural production and the supplies of rice and wheat from Central Stocks for distribution through public distribution system have already eased the food situation in this State. Generally the prices of all commodities excepting one or two varieties of pulses have shown a decline compared to the prices which prevailed during this time last year.

Agricultural land ceiling

West Bengal is one of the earlier States to enact the ceiling law. Under the West Bengal Estates Acquisition Act, 1953 all intermediate interests were abolished and the tenants were brought into direct relationship with the State. The ceiling of agricultural laws was later substantially lowered and fixed on a family basis with effect from 15 February 1971 by an amendment of the West Bengal Land Reforms Act, 1955.

Out of the total area of 250,200 hectares of vested agricultural land available for distribution, 285,615 hectares were distributed among 814,801 beneficiaries upto 15 October 1975.

A crash scheme for updating land records has been taken up in all the districts excepting Purulia and Islampur Sub Division of West Dinajpur where settlement operations under the West Bengal Estates Acquisition Act are nearing completion.

House sites for weaker sections

The work with regard to the distribution of house sites has been completed in all the 15 districts of the State. The total number of house sites distributed upto 7 November 1975 is 273,681.

Rural indebtedness

As a result of the West Bengal Rural Indebtedness Relief Act, 1975, the *mahajani* debts are to remain in abeyance for a period of two years, and interest on these debts will not run during the period.

Minimum agricultural wage revised

The rates of minimum wages payable to agricultural labourers in the State have been revised linking the wages with the annual consumers price index number and equalising wages for men and women workers. The State Government is contemplating to bring forward an act conferring security of service and other ancillary benefits on the agricultural workers.

More areas under irrigation

In the context of the economic measures announced by the Prime Minister, the State Government is currently implementing a

Rs 70 million accelerated food production programme as an additive to the State's plan effort. The emphasis primarily is on quick development of irrigation sources through shallow tubewells, deep tubewells, tanks, etc.

As part of the accelerated food production programme 500,000 mini kits are to be distributed to cultivators. These kits contain high-yielding varieties of seeds, fertilisers and pesticides. Exploratory drilling to ascertain ground water resources is in progress in areas of Howrah, Midnapore and Murshidabad districts. Three new schemes for Midnapore district and Murshidabad district have already been sanctioned.

Supply of cloth

There is a Cabinet sub-committee to oversee the distribution of controlled cloth

in the State. Out of the total quantity of controlled cloth actually lifted by the cooperative network, 90 per cent is being distributed in the rural areas. As decided by a Cabinet sub-committee, preference in distribution is being given to 'A' and 'B' class ration card-holders in the rural areas who represent the vulnerable sections of the society.

Essential commodities to students' hostels

As from 1 August 1975, a scheme for supply of essential commodities to students staying in hostels outside the statutory rationing area of the State has been made operational. Arrangements for the supply of essential commodities (other than rice, wheat, sugar and kerosene) to students' hostels attached to universities and degree colleges through wholesale consumers cooperative stores is continuing.

Books at controlled prices

The Education Department of the State Government is implementing a programme of supply of textbooks published by Government free of cost to all students from Classes I to III in approved primary schools. Nationalised textbooks are also being distributed free to all students belonging to Scheduled Tribes, and to 30 of students belonging to Scheduled Castes and other weaker sections enrolled in Classes IV and V. Books to the rest of the students in Classes IV and V are being supplied at nominal prices.

Cheaper Food and Books for students

CONSUMER cooperatives were asked to arrange for providing essential commodities on concessional terms to students' hostels in universities and degree colleges. Steps have been taken to select cooperative stores for receiving supplies directly from manufacturers for students' hostels at wholesale rates and strengthening and expanding students' cooperative stores in universities and colleges. Among articles included for sale on concessional terms are foodgrains, pulses, spices, vanaspati, other oils, tea, coffee, toilet and washing soaps, books and stationery, sugar, bread, eggs, butter and salt.

Now the twin programmes of supply of text books and essential commodities have succeeded in making a dent in educational cost and by now 2,31,317 students have been benefited by the supply of essential commodities. About 2775 hostels have been covered in these programmes. As a result the fall, with the number of hostels covered in some of the states, is as follows.

Andhra Pradesh (273) Rs 10 to Rs 20; Assam (153) upto Rs 10; Bihar (429) 10%; Himachal Pradesh Rs 5 to Rs 10; Karnataka (114) Rs 5 to Rs 10; Madhya Pradesh (47) 10% to 15%; Maharashtra (95) Rs 3 to Rs 16.50; Manipur (7) Rs 1.50 to Rs 10; Rajasthan (178) Rs 5 to Rs 15; Tripura (8) 10%; Uttar Pradesh

(207) Rs 10 to Rs 15; Delhi (49) Rs 1 to Rs 20; Goa (9) Rs 6 to Rs 10; Mizoram (2) 40% on pre-emergency expenditure.

The second programme, relating to the supply of white paper at concessional rates for printing of text-books, has also had a telling effect. According to the present official review of these programmes, there has been as much as 10 to 20 per cent reduction on all text books from Class I to Class XI in some of the States.

The book programme is, in fact, double-decked. Along with the provision of 'cheap' text-books, the project to set up book banks in schools and colleges has made considerable headway, with States like Madhya Pradesh and Kerala nearly achieving the cent-per-cent target in respect of schools.

In Arunachal Pradesh text books are supplied free to tribal students from classes I to VI. From class VII upwards, they get text books at one-fourth of the price. In Sikkim, text books are supplied to schools at a fifty per cent subsidy. In the outlying islands, the supply is free to the needy.

Students and youth organisations at several places are involving themselves in the Twenty-point economic programme.

SOMANGALAM

POORNAM VISWANATHAN

WITH about 70 per cent of India's population living in the villages, the future well-being of the country depends on the prosperity of the village folk. That is why the Prime Minister's 20-Point Economic Programme has underlined the importance of a balanced growth of rural India. It is in accordance with that programme that a Rural Reconstruction Project has been launched in 10 villages in and around Somangalam in the Kundrathur Panchayat union of Chengalpattu District in Tamil Nadu.

The suggestion for the integrated project came from the Governor of Tamilnadu, Shri K.K. Shah, who wanted it to be implemented under the aegis of Gandhi Mantapam, Madras. Inaugurated by the Prime Minister herself on the 15 February 1976, the project aims at taking all the benefits of science and technology to these 10 villages in such a way that ultimately there is a proper sharing of these benefits among all the members of the rural community. The Somangalam project signifies a grand start to a mighty effort at giving a new life to rural Tamilnadu.

Somangalam of today is a sleepy village with about a thousand people living on agriculture. There is a primary school, a high school and an agricultural cooperative society. For the Rural Reconstruction Project, 9 other villages in and around Somangalam have been chosen; these are: Manampedu, Poonthandalam, Nallur, Puducheri, Naduveerappattu, Erumaiyur, Varadarajapuram, Nandampakkam and Sirukalattur.

When I went round Somangalam village and the adjoining areas and talked to the people living there, I could collect many particulars about the living conditions in the project area. In Somangalam itself there is no provision for drinking water; there are two lakes from which people take water for any and every purpose. Even for these lakes, the only source of water supply is periodical rainfall. That is perhaps why the aspirations of the farmers in this village are limited. The Harijan peasants of

the village are living in a segregated colony. There are no medical facilities in Somangalam; if urgent medical aid is needed, one has to run up to Kundrathur which is some six kilometers away. There is not even a movie theatre nearby. Fortunately there are some 200 students in high school and another 200 in the primary school. When I spoke to the people about the pilot project, their faces lighted up and in one voice they declared that they would do their best to make the project a total success.

Implementation

The Somangalam project area comprises 2,540 hectares of cultivable land with a total population of a little over 11,000. The project seeks to improve the living conditions of all the families in the area, including more than 6,000 Harijans, by the proper and adequate application of inputs to various sectors of development so that in two to three years, the average monthly income of a family will go up to Rs 400. Every family will be totally involved in the project. Special attention will be given to

improving irrigation facilities and the supply of agricultural inputs. As much as 1,047 hectares of wet land and 822 hectares of semi-dry and dry land will be brought under the High-Yielding Variety Programme. Improved irrigation facilities will be offered to 1,620 hectares of wet land. An Agro Engineering Cooperative Service Sub Centre has already been started to supply tractor and other agricultural implements to farmers on hire. The project will provide facilities for storage and marketing of agricultural produce. It also enumerates steps to improve the cattle wealth in the area by artificial insemination and introduction of hybrid animals. Under the project, a Milk Cooperative Society will be organised for the collection and marketing of milk produced in the area.

Shri T.V. Venkataraman, Secretary of the State Department of Rural Development and Local Administration, says that as the very concept of rural development has undergone a change, the pilot project visualises an integrated and combined effort of the rural leadership and the Government. Whatever steps are taken by the Government must fully involve the local people and institutions. The old ideology of community development will thus get revived in the form of overall rural growth—social, economic, health and education. Shri Venkataraman stresses the need for the entire village society to take care of all the needs of the village. The pilot project aims at developing an institutional base by assisting panchayats, banks and voluntary agencies in a harmonious combination so

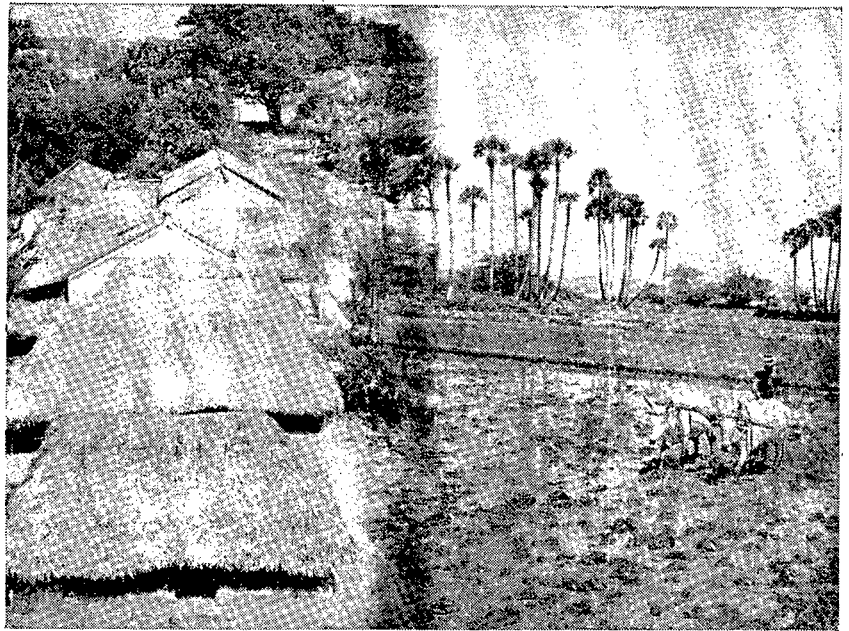


as to utilise all the resources properly. Shri Venkataraman points out that the Government will be an enthusiastic participant in the effort, mobilising and properly channelising the resources for development. All the Government agencies will take a lively interest in the success of the project which has infinite possibilities. According to Shri Venkataraman, the project signifies a fresh approach to the needs of the village society. The success of the project will influence the entire rural reconstruction effort in Tamil Nadu.

Support for Everything

Eight Departments of the State Government are to make extensive surveys and submit their reports soon, so that money allocations may be made in April. A hundred new wells will be dug at the project area and 50 of them will be energised very soon. At present there are 211 irrigation wells in the 10 villages adopted for the project and 110 of them are in constant use. A comprehensive survey will be conducted to cover all the 1,000 agricultural families living in the area and an effective programme of action will be drawn up indicating the capacity and the needs of each family. An extensive effort to cross-breed the cattle in the area is to be undertaken soon. There are at present 5,500 heads of cattle in the project area and it is expected that through cross-breeding, there will be substantial increase in the milk yield.

Cooperative societies have already started functioning with vigour. These societies will supply fertilisers and pesticides to the farmers, in addition to financing the erection of 100 tubewells in the area. The National Cooperative development Corporation has come forward to give a subsidy of Rs 55,000 for godown facilities. The cooperative society in the area will also distribute consumer goods to the rural folk. It is proposed to have a cooperative multipurpose institution which will look after the entire needs of the villages. In eight out of the 10 villages it is proposed to start milk producers' societies which will look after the collection and marketing of milk produced in the area. Enough fodder will also be made available. There are 98 small farmers and 202 marginal farmers in the area. According to a survey conducted by the Government there has been a very good response from the farmers for operating backyard poultry units. It is proposed to distribute birds to these farmers at the rate of 10 each. Arrangements will be made for the marketing of eggs produced.



A view of Somangalam village

The State PWD has offered to repair the tanks in the area in order to improve irrigation facilities. The Department will also guide the people in the matter of cutting down water consumption to the minimum.

Balwadis to be started

As for social welfare, it is proposed to start 10 *Balwadis* in the project area by the end of May this year. These *Balwadis* will work in close cooperation with the Primary Health Centre and undertake to distribute 'Balahar' a nutritious food to children. The *Balwadis* will also look after the medical check-up of children and will undertake a survey of the need for creches for very small kids. They will also arrange for the sale of handicrafts produced by the rural women. The welfare of the physically handicapped children will also be looked after by the *Balwadis*. The Harijan Welfare Department will provide house sites for the weaker sections of the society and will arrange for drinking water facility in Harijan colonies. The Department will dig wells for irrigating Harijan lands. Eradication of untouchability in the area will be undertaken by the Department which will also offer interest-free, petty-trade loans to Harijans.

The State Electricity Board has offered power supply to all the 10 villages in the area. Already, there are 123 pump sets in operation; power connection will be given to 52 more sets. Street lighting will also be improved in the villages.

The Health Department is to undertake a comprehensive survey to assess the total health needs of the

area and arrange for medical care, environmental hygiene, protected drinking water supply and maternity and child welfare facilities. Health visits to the villages will be a regular feature.

There is a lot of scope for vegetable cultivation in the project area. The commercial banks are expected to offer adequate assistance to the villages in the production and marketing of vegetables. There are some 140 families engaged in handloom weaving. It is proposed to take all the families into the Kundrathur Handloom Weavers' Cooperative Society to enable them to obtain full benefits from their efforts. Housing loans will be offered to the villagers on the security of land or produce at the rate of Rs 5,000 per house, repayable in 20 years.

All-weather Roads

The programme to improve the present roads in the area into all-weather roads is to be taken up soon. The road linking Somangalam with Tambaram near Madras will be improved. The transport department is to increase bus facilities in the area. There is another scheme to train artisans in mat-weaving, tailoring and match manufacture. There will be a concentrated effort to step up employment opportunities in the project area. A survey has already been started.

In all the above activities, the services of various organisations like the cooperative Central Bank, the Land Development Bank, the nationalised banks, the Small Farmers Development Agency, etc, will also be utilised.

BOOKS

Nehru and Planning

Growth of Indian Economy in Socialism. Edited by Ashok V. Bhuleshkar; Oxford and IBH Publishers, Delhi, on behalf of Jawaharlal Nehru Memorial Institute and Development Studies; Pages 605; Price Rs. 80.

IN MAY 1964 the Congress Party lost a referee to whom all party disputes could be taken for final decisions. The darling of the masses, the pilgrim of peace was no more. But there is no doubt about the fact that Nehru left an indelible imprint on Indian life and thought and as things stand now, Nehruism has become an integral part of modern Indian thinking. The book under review is an excellent compilation which has been brought out on the Eleventh Death anniversary of Panditji as a humble tribute to this towering but all-too-human personality.

Nehru's socialist philosophy aims at replacement of the profit system by a higher ideal of cooperative service. He wanted India to be organised in a democratic fibre, for, this is the most conducive step. In his article, 'India without Democracy' Brij Mohan rightly points out that but for Nehru, India, perhaps, would have been without democracy. In fact Indian democracy mainly owes its secular and socialist complexion to Nehru. Democratic economic planning in a backward economy is a sheer impossibility—at a time when this was the considered opinion Nehru reasoned forcefully that the country offers grounds for further sacrifices and planning in due course would be the only viable alternative. And to Nehru, Planning was a growing dynamic concept, as something which is not 'rigid'. This tempo can be easily observed during the Second Plan period which reflected a changed composition of industrial growth. Though agriculture was neglected, yet, curiously enough Prof. Chakravarty points out in 'Nehru's Concept of Planning', that, 'with the Indian land-man ratio, agriculture itself cannot develop unless industry can provide the necessary inputs on a vastly enlarged basis'. External assistance was hailed by Nehru quite often as 'part of the crossing the hump'. It is true Nehru was overambitious in translating his ideas into practice but as he says 'We

propose to be overambitious every time... we dare not go slow for we may fail completely by going slow.'

Unfortunately Nehru's strategy of nation-building was defective and as C.P. Bhambhri points out Nehru wanted to change attitudes and ways of thinking of the masses but he could not establish concrete alternatives to the images cherished by the people. Even his partymen and cabinet colleagues remained unconvinced about the validity of many of Nehru's ideas and the 'unceremonious farewell to the policy of Independence and Non-alignment given by the successors of Nehru illustrates this point.' Frank Moraes' observation that Gandhi is remembered only on 2nd October, each year for ritual purposes and ungrateful people have forgotten him—has been applied to Nehru too by A.J. Dastoor in 'Does Nehru Survive today'. Gandhi and Nehru actually Worked for the cause of the 'vulnerable sections of society' but the present day witnesses them distressingly as the subject and object of 'sloganeering and electioneering'. The spirit of democracy is under seige, says Rohit Dave in 'Is India Heading for Communism?', though the formal trappings have not been touched so far. He pins his hope and faith in the Indian people who, he feels, have by and large shown a determination to defend democracy at any cost.

The second part of the book is devoted to a brief examination of the role of agriculture in economic development. Cooperation is not government control and Nehru always opposed this line of thinking. In an effort to decentralise economic power and redistribute national wealth, the cooperative movement had been started and after its inception instead of promoting the principles on which the edifice is dependent, as M.V. Madan in 'Cooperative Growth in Indian Economy' says, there is frequent 'violation by government of cooperative principles through the enforcement of rules and regulations, repugnant to cooperative ideology and practice.'

Excessive dependence on Government aid has promoted 'yes men' who are busy seeking government favours and increased assistance to

cooperatives. A refreshingly new look at the role for cooperatives in rural development is the need of the hour. Uma Lee examined the 'Role of Credit and Marketing Function in Agricultural Development' on an international scale and concluded that institutional credit has gone largely to the relatively large farmers, resulting in 'spiralling of income inequalities'. R. Bandyopadhyay in 'Growth of Institutional Finance in Agricultural Development' has also referred to an undesirable bias of 'institutional finance agencies to the large farmers and developed regions'. To correct this trend, commercial banks have to assume a more dynamic role in initiating action at the micro level at least. The performance of Agricultural Refinance Corporation, the Impact of modern technology on employment of agricultural labour, the effect of Green Revolution on agricultural production, unemployment in India with special reference to agriculture have also been examined separately.

In an effort to cover from 'pin to the plane' Anantaraman's effort became a futile exercise and in fact there is no charm in his suggestions; emphasizing human relations approach of McGregor; provision of a suitable environment, professionalisation of management, presence of educated workers etc. for the success of collective bargaining in his article on 'Union Management Attitudes'. The third part of the book, in addition, covers several articles on industry and economic development. A.C. Shah has stressed the need for production oriented industrial policy. Indiscriminate criticism, controls, interference prohibited the development of democratic ideals and values in the executives says, N.S. Ramaswamy in 'Manager's Commitment to Public Sector' and the remedy lies in reconstructing the structure with untiring efforts though it has already been irreparably ruined. Instead of expressing a permanent and ready craze for nationalising everything and strangling the private sector by means of controls and restrictions, the emphasis should be focussed on consolidating the existing public sector units, denationalising the inefficient units and leaving private enterprise to function freely, says Prof. Adarkar in his Foreword. L.K. Jha's 'Strategy Against Inflation' emphasised the need for stepping up supply of essential goods. V.K.R.V. Rao's penetrating analysis regarding socialist change in India needs special attention and merits consideration. The concluding part of the book contains articles em-

phasising the role of foreign trade, foreign investment, Indian capital market, credit planning in building the foundations to modern India.

The range of information provided in the book is, indeed, remarkable. The case of India in transition has been assessed in a critical vein. The book is liberally sprinkled with quite a good number of constructive suggestions. It is not a mere compendium but high level analysis of Nehru's

thoughts and ideals, making a passionate plea for change in attitudes. In order to strengthen the forces of Democratic Socialism it is necessary to have this type of literature, which will be an effective medium for the ventilation of Nehru's cherished goals, and definitely the book would serve a very useful and educative purpose.

—V. Suryaprakash Rao

A Study in Realism

The Efficacy of Industrial Estates in India with Particular Reference to Mysore by Dr. N. Somasekhara; Vikas, Delhi, 1975; Pages XII+157; Price Rs. 35.

THIS BOOK is a study in realism in the field of industrial development. Industrial Estate is a transplanted idea from the United Kingdom that never took deep roots into our soil, because like most other things, its mystique defeated action that was not evidently preceded by pragmatic economic reasoning in our national context. One is sometimes apt to suspect in this regard that ideas of this nature in the field of economic development have been tried out in India with unhappy outcomes largely due to the lack of sustained economic research behind economic policy formulation.

On the basis of a diachronic study of nine industrial estates in Mysore between 1961 and 1971, the author conclusively shows what went wrong and where. The study is not to be taken as a damaging commentary on our policies of industrial development but as an intelligent exercise in project evaluation *ex post*. If we overlook the descriptive part of the book written largely on the basis of the information provided by the prolific literature that has resulted over a period of two decades on industrial estates, the section on 'tools of analysis' in the main design of study (Chapter 2) and the treatment of financial interrelationships (Chapter 5) and financial viability of the programme (Chapter 6) would merit special attention.

The empirical content of the study is confined to the identification of the impact of the industrial estate on the unit and its measurement, particularly the latter. It is unlikely that hitherto anyone else has attempted a detailed methodology of measurable impact covering manufacturing efficiency, rate of profit, productivity of labour output, creation and employment generation, all these being

quantifiable aspects of the concept of efficiency, technical, economic, labour and capital. There is merit in the author's detailed attempt to define the coefficients and actuarial concepts.

A Cobb-Douglas type of production function was fitted by the author in order to estimate the elasticities of output with reference to capital and labour. This meets the obvious query of the economist in regard to the tangible results of altering factor intensity in increasing output and employment, a point on which exaggerated expectations are usually placed by the uninformed politicians.

Although primarily oriented to the bench mark study of industrial estates in Mysore, the author's sustained efforts to improve this study has drawn him into the entire spectra of the policies governing the establishment of industrial estates all over India. The author's plea for a systems approach for making the industrial estates based on the comparative experiences of other countries (Italy, Ceylon, Indonesia and others) highlight, *inter-alia*, the need for larger industrial estates, the use of economic criteria for their location within the matrix of homogeneous economic areas, the use of cost-benefit analysis of alternative sites, expansion of subcontracting arrangements of large industrial complexes to the adjoining industrial estates, attention to the physical planning of the estate and the vital need for consolidating the services rendered by various governmental agencies.

That these points have been largely suggested by international teams, study groups and committees of the Central Government already and consequently are shorn of originality, does not, all the same, detract from the value of this updated doctoral dissertation, which is just another example of the very serious type of researches traditionally carried out by the Gokhale Institute of Politics and Economics, Poona.

—B.N. Nair

Data Analysis

Elementary Statistical Methods by S.P. Gupta; Sultan Chand & Sons, New Delhi; Pages 338; Price Rs 12.50

Practical Statistics by Shiv Kumar; Sultan Chand & Sons, New Delhi; Pages 10.24; Price Rs 15.

FACTS and figures about anything observed—it may be of population, production, national income, births, deaths, growth of education etc. are termed as statistics. Statistics are highly convenient forms of communication, because they are clear and have meaning. Thus statistics is a subject for obtaining and analysing data in order to base decisions on them. The methods by which statistical data are analysed are termed as statistical methods. These are playing an ever-increasing role in framing suitable policies in a large number of fields.

There are large number of publications on this subject. However, this book is specially designed with an eye on the need of the students of commerce.

Going through the book one is impressed by the zeal and effort Shri Gupta has put in in his study. The lucidity of style and simplicity of expression have been his main aim to impart statistical methods without fear.

This book has already established its importance in assisting the students to gain proficiency in solving diverse variety of problems.

Shiv Kumar believes on the maxim, 'Example is better than precept.' He has brought home precepts to the readers through illustrative examples. Most of these examples have been taken from latest university examination papers, but many of these are from standard theoretical distributions without referring to them as such.

Books on statistics generally lay more emphasis on how the calculations are to be made and examples are also selected on that basis. Shiv Kumar has also done it but in addition, he has taken every care to see that these examples also help in clarifying the statistical concept involved.

This book contains 569 solved problems; over 300 exercises with answers. The students of Commerce, Economics will find in it a constant companion.

—N.N.

Development Notes

20 POINT ECONOMIC PROGRAMME

Non-Coking Coal for Steel

Scientists of the Council of Scientific and Industrial Research have produced for the first time in the laboratory a slab of iron using "non-coking" coal.

India has some 83,000 million tonnes of coal but only two per cent of this is of the coking variety. The new Fuel Research Institute (FRI) technology, can give a new lease of life to steel making because it can virtually utilise all kinds of non-coking coal available in India.

Under the FRI method, the ashladen "non-coking" coal is converted into a hard, strong, and unbreakable egg-shaped briquette called "formed coke" which has all the physical and chemical properties of the "hard coke".

Formed coke has met the Indian Standard Institution specifications for being used as a substitute to the traditional hard coke in blast furnace.

Some 50 tonnes of "formed

coke" produced at the FRI pilot plant were supplied to the National Metallurgical Laboratory, another CSIR Institute at Jamshedpur.

The NML scientists tested the metallurgical qualities of the formed coke and using that produced in their "cupolas" a small ingot of iron.

The FRI formed coke will be tested for its suitability in steel making in the 130-tonne-a-day blast furnace of Tata Iron and Steel Company at Barbil, south of Jamshedpur.

In order to supply the "formed coke" for this blast furnace, Coal India Limited is building a formed coke plant at Talcher in Orissa based on the FRI technology. This Rs 37 million plant which will be commissioned 18 months from now will produce 350 tonnes of formed coke a day using Talcher coal.

According to FRI scientists formed coke costs about Rs 190 a tonne compared to Rs 210 for the traditional hard coke.

A Multipurpose Ship

Keel for yet another multipurpose ship, a 21,600 DWT Pioneer type vessel has been laid at Hindustan Shipyard, Visakhapatnam.

Numbered as 171009 this ship is the eighth of the Pioneer type of vessels being built in the Shipyard, and the second vessel of this type under construction for Messrs India Steamship Company Limited,

Central loan for Urban Development

The Union Government has sanctioned a loan of Rs 20 million to the Govt. of Tamil Nadu for the integrated urban development schemes in the Madras metropolitan areas. The loan will be repayable in 25 equal annual instalments commencing from the first anniversary of the drawal of the loan. The Tamil Nadu Government will be required to pay the interest at the rate of

5½ per cent per annum.

The grant of loan follows the assessment of the requirements of the Madras Metropolitan Area which were of the order of Rs 80 million, out of which a total outlay of Rs.63.5 million was assessed for water supply and sewerage followed by Rs 12 million for area development and Rs 4.5 lakhs for construction of roads.

Rural Electrification Schemes

The Rural Electrification Corporation has sanctioned Rs 146.5 million for 39 new schemes to electrify over 3,000 villages in 16 States. Fifteen of these schemes are in backward and underdeveloped areas. The new schemes are expected, to energise about 9,600 irrigation pumpsets and 1,500 agro-based industries.

The schemes will provide power for over 46,200 domestic and commercial connections and 6,500 street lights. A special feature of the sanction is the approval of eight schemes under the Minimum Needs Programme which will cover over 1,360 villages in Assam, Bihar, Meghalaya, Orissa and West Bengal.

Implementation of Workers' Participation

The implementation of the scheme of workers' participation in industry at shop-floor and plant level has started gathering momentum in various States. Governments of Haryana, Punjab, Orissa, Rajasthan and Arunachal Pradesh have set up committees with Chief Ministers as chairmen for reviewing the progress of implementation of the scheme.

In Uttar Pradesh and Bihar, the implementation of the scheme has been entrusted to the State Apex Bodies. As regards other States and Union Territories, tripartite meetings are being convened

for getting cooperation of employers and employees in the matter of setting up of shop councils and joint councils.

Andhra Pradesh, Orissa and Punjab and some other States have further enlarged the scope of the scheme by extending it to establishments employing less than 500 workers.

Employers' organisations too are not lagging behind. Some of them have urged upon their constituents to take up earnestly the question of setting up of shop councils and joint councils, to show their cooperation in fulfilment of the 20-point economic programme.

Banks Adopt Villages

Eleven banks in Krishna district of Andhra Pradesh have adopted 27 villages to finance the economic support schemes meant exclusively for scheduled castes.

Under the scheme, the Krishna District Scheduled Castes Services Co-operative Society has deposited Rs 30,000 as margin money for each village so as to enable the bank to give loan upto Rs 1.5 lakh to all needy and eligible scheduled caste people. The banks will finance the purchase of milch cattle, cycle rickshaws, pig-gery units and other schemes

which will help the poor to better their lot.

This is part of the massive scheme to benefit 10,000 families belonging to the weaker sections at a cost of Rs 10 million by the end of this financial year. Already schemes worth Rs 8.7 million have been taken up to benefit about 5,000 families with the margin money coming from the Scheduled Castes Services Co-operative Society, the Backward Classes Committee, the Women's Welfare Corporation and the Co-operative Department.

Priority for Tribal Development

The Government has accorded highest priority to tribal development in country's programme of socio-economic reconstruction. A total investment of about Rs 15000 million is estimated to flow in the sub-plan areas during the Fifth Five Year Plan period. The level of investments in the tribal areas was picking up and total investments in the tribal areas during the next year is likely to be more than Rs 2000 million, out of which Rs 1500 million will come from State Plans. The balance would be met by means of special central assistance.

In order to ensure that there is no diversion of the resources provided for tribal development to other areas, a new accounting procedure has also been introduced. Under this each functional head would have a separate sub-head for tribal sub-plan areas. The emphasis would

now be to ensure that the tribal development programmes are implemented in the right spirit. One of the important features of the new strategy for tribal development is to accord priority for eliminating exploitation. A conscious policy decision has been taken that there should be no distinction between protective and developmental aspects of the administration in these areas. In fact, protective aspects are essentially first steps for launching an economic development programme.

Very often an area may develop but the people for whom the developments are meant may not get the benefits. Stronger sections corner the benefits meant for the poorer sections. To ensure full justice it is the man on the spot i.e. the field officer who will have to ensure that the spirit of the programme is fully honoured.

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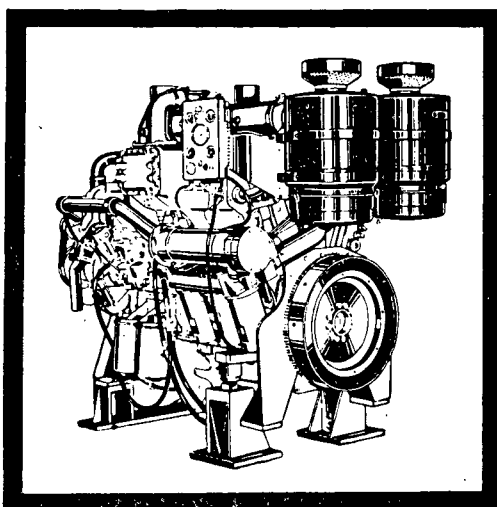
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