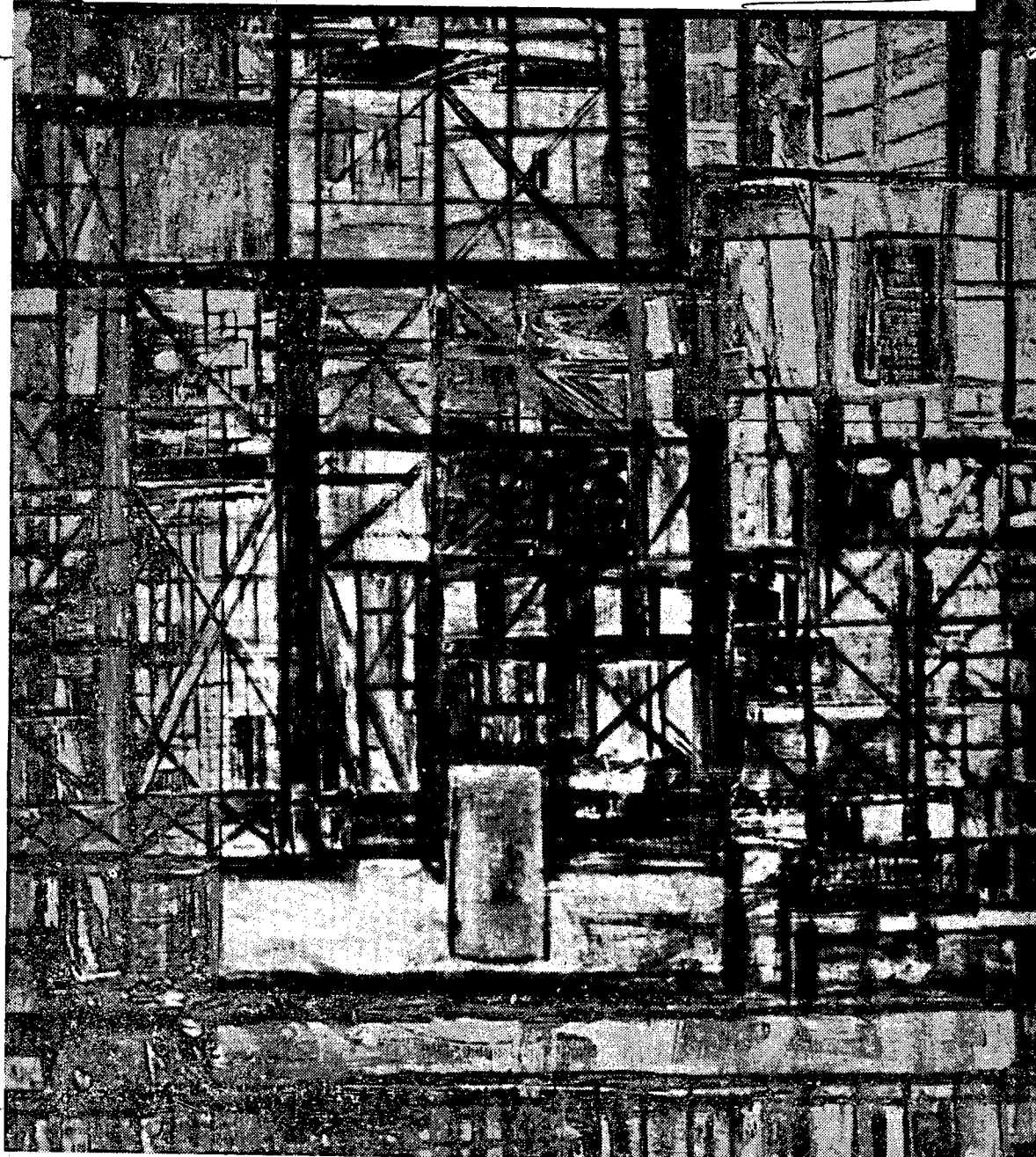


Seventh  
Year  
20

# YOJANA

N/O-20



SPECIAL  
NUMBER

## PLAN IMPLEMENTATION

OCTOBER 13, 1963

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## ABOUT YOJANA

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## YEAR'S EXPERIENCE

OCTOBER is a month of memories. In October was born the maker of our nation who taught us to tread the path of non-violence and universal trust. And it was in October that free India faced a massive external challenge not only to those values but to its very integrity. As the first anniversary of the Chinese invasion comes along next Sunday, the minds of the people of India go back to the days when news was grim but the nation's reaction to the news was glorious. It is right that October 20 should be celebrated as the National Solidarity Day.

Eleven months of a peace that is not peace have followed the month of fighting. Although the abrupt stoppage of the sound of gunfire and the thud of boots led to a relaxation of the keyed-up feelings in the country, and we seem to have reverted to the habits of bickering, deep down there is recognition that a return to the soft days is not possible. Over the same period China, through its arrogant and advertised allegiance to violence, has isolated itself from the world community. People who had been taken in by Chinese impropaganda in the early days have opened their eyes. This, as well as the tangible support that several nations gave us, has been heart-warming. Nevertheless we ought to remember that the very isolation of China makes it prone to resort to desperate courses.

Quietly and steadily the defences of our nation are being strengthened. Just last month the Defence Minister outlined to Parliament the progress achieved in expanding the Army, modernising the Air Force and retraining

the Armed Forces to meet the foe on the northern heights. The technical and research arms of the defence organisation are also being speedily enlarged. The wheels turn faster in defence factories. And to increase popular awareness of the new needs, all young men in colleges are being given military training.

But is there the kind of widespread and deeply-felt realisation of what constitutes the true might of a nation? True, industrial labour has cheerfully observed the terms of the Industrial Truce and helped production. True also that the people as a whole have sensed the need for Government to have more funds at its disposal to spend on defence and development. But the full implications, economic as well as strategic, of the confrontation with China, which is bound to be long-drawn-out, have not been fully grasped. Wars in the modern times have been hustlers. They have brought about big changes not only in patterns of production but in social attitudes and in the very fabric of nations' lives. Major administrative and social reforms have been effected in many countries during wartime. The absence of fighting should not make us forget the fact that we are really in a state of defence alert. The Emergency is not a mere technical one. While building up basic industries we must go ahead with the improvement of the lot of the handicapped and the reorganisation of the economic structure so that the people will know what the nation has done for them in order to be more ready to know what they have to do for the nation. But those others who even now are more favourably placed, especially the administrators and the leaders of opinion, have no cause not to work harder. For it is only hard work and dedication that will truly give us the strength of giants.

## PLEASE TELL US

SINCE changing over to the present size, *Yojana* has been bringing out two Special Numbers every year, and we have pleasure in presenting this Special Issue devoted to a subject that is closely bound up with the country's strength and well-being. The scientific method consists in testing out ideas and beliefs in the field and learning from experiments and experiences. What happens to policies and programmes in the course of their execution has important lessons for further planning and a study of the new problems encountered gives new insights that make planning more purposive.

We are at the mid-point of the Third Plan as also of the 25-year stretch which the planning effort has set for itself in order to achieve a doubling of national-income. At this juncture there is a feeling that what is

required to make Indian development more effective is more determined and better co-ordinated implementation. *Yojana* invited a number of scholars and expert administrators to give their views on various aspects of this problem of implementation. Most of them responded readily. While not claiming that this symposium is comprehensive we hope that it will to some extent serve the cause of development.

We take this opportunity to address a request to readers. In three months more *Yojana* will complete seven years of life, but not with any feeling that it has done all it could. We shall be grateful therefore if readers will tell us what they feel of *Yojana*, its contents, aim, tone, style and lay-out, and what changes they would like to see in the journal. Their views will enable us to appraise ourselves candidly and improve our performance.

## Section One : General Considerations

# IMPLEMENTATION: *a conceptual framework*

RAGHBIR S. BASI

ADMINISTRATION may be viewed as the direction of human effort for the accomplishment of specific goals. It is the process of lending order to work so that it may proceed purposefully and efficiently. It consists of two inter-connected, but individually identifiable exercises: planning and implementing. In commonsense usage, these exercises are called thinking and acting. The two activities are not mutually exclusive, but neither are they mutually inclusive. The latter is conditioned by the former and is dependent upon it, but does not necessarily follow.

The administrative process is carried out through the instrumentality of an organisation, where the process of decision-making is the core activity. The process of administration which an organisation carries through is only as dynamic as the process of decision-making.

Planning involves (i) identification of objectives, (ii) the establishment of premises and policies and (iii) the blueprinting of a detailed plan of action in terms of manageable projects.

Implementation involves (i) programming the individual projects, (ii) actuating or providing the necessary leadership and (iii) exerting the controls in order to examine whether work on the plan of action is proceeding as programmed. Since implementation is the object of concern in this paper, the various aspects of it are developed further.

## *Programming*

Adequate programming is the first essential step for successful implementation. It provides the yardsticks which act as guides in controlling actual work progress.

Conceptually, programming involves identifying the various outputs, arranging their production into a time sequence, pinpointing accountability to carry out production, preparing detailed schedules for the financial, physical and manpower resources required, and tying them with the time sequence of outputs already established. It is essentially a three-step operation.

First, it means identifying, and if necessary, grouping the various outputs and putting them into a time sequence. For construction projects, it is necessary not only to give the beginning and completion date for each facility, it is also necessary to detail the rate of progress for each component as well as for the project as a whole. For production enterprises, it is necessary to identify the outputs and prepare production schedules in a detailed manner.

Second, it means fixing accountability within the overall organisational framework for accomplishing the work as suggested above.

Third, it means preparing detailed estimates of monetary, material (including machines) and manpower resources which are required to carry out the various units of work, and to schedule these requirements in accordance with the time sequence of the construction of production schedules already established. It may be stressed that it is equally important to provide the basis for the estimates so that they can be used as standards when actual performance is sought to be measured as against the scheduled.

## *Actuating*

Actuating may be viewed as the process by means of which a manager directly, and personally, influences the behaviour of those who work with him, and by which his subordinates, in turn, feed back information that is vital for him to accomplish action. It is a dynamic relationship which is both personal and active. It is personal because it implies close man-to-man relationship. It is active because it is of an evolving nature wherein there is a two-way communication between the manager and his subordinates. In a sense, they both affect the behaviour of each other.

Conceptually, the process of actuating involves (i) carrying out effective communications between the supervisor and his subordinates as to what is sought to be accomplished, (ii) provision of leadership so that the subordinates are properly motivated, and (iii) the exercise of adequate discipline so that those subordinates who function constructively are rewarded, and sanctions are applied against those who do not. These aspects may be called communicating, leading and disciplining. They are elaborated below. Sociologically speaking, actuating involves the fusing together, by the supervisor, the organisational goals with the interests of the individuals and those of the groups to which they belong.

*Communicating:* Communications may be looked upon as an interchange of thoughts, facts, opinions or emotions between two or more people. It is a two-way process. The essence of effective communications is whether the transmitter is able to make the receiver fully comprehend what is sought to be transmitted.

*Leading:* Leadership may be looked upon as the capacity to influence others to strive willingly towards mutually agreed-upon objectives. The job of an appointed leader is much harder than that of an informal leader. A supervisor needs to be adroit in human relationships as well as the use of authority in order to be effective in motivating his subordinates.

*Disciplining:* Discipline may be looked upon as the art of securing co-operation from subordinates through the actual or implied use of rewards and sanc-

(Continued on page 59)

# Approach to Administrative Reform

TARLOK SINGH

**I**MPLEMENTATION is a fair measure by which to assess the immediate impact of an idea, a policy or an institution. However, the quality of implementation is influenced by a variety of factors, only some of which can be seen at the surface. The current state of administration is often painted in such broad strokes as enormous delays, high levels of expenditure on personnel and small contribution to public well-being. Such labels tend to stick. They are in fact symbols, which reflect both a degree of substance and a degree of exaggeration and have to be taken seriously. Through action at several planes this image of public administration in the country must be transformed. Yet, the current picture is far from being the whole truth. It is possible to cite many illustrations of failure in all walks of life. Equally, there are many more instances of trust well-discharged and duty faithfully rendered which may go unnoticed. Despite strains and inadequacies, the system works, but not without friction, rigidity and lack of understanding, which often leave behind a sense of discontent. What is true for the larger part must come to be true for the whole. This is not to suggest that the problem is either small or merely of a residual nature, for the cracks in a wall have to be traced to weaknesses which lie deeper in the structure. These weaknesses must be removed by policies and measures and changes in attitude and motivation which will strengthen the existing structures and, where necessary, put new ones in their place. There is indeed no time to fail. With the many positive assets we have, there is every reason for us to succeed. We have the essential consensus of values and goals, the institutions of freedom and expanding democracy, the acceptance of obligations and responsibility for welfare and opportunity for all citizens, and leaders and public servants at all levels, a high proportion amongst whom are imbued with the desire to serve the country to their best ability. These assets have not come by chance and are not to be lightly regarded, for no other nation placed in similar circumstances possesses them in equal measure. It is true, however, that to get the best value from the resources with us, both tangible and intangible, present and potential, in some ways we must be prepared to alter some of our sights and modes of thinking.

**T**HE nature and dimensions of the problem of administration at the present time are vastly different from those in the past. The responsibilities assumed by Government at various levels, the range and diversity of the social, economic and political aims to be realised, the expectations of the people, the limited time and the mea-

gre resources at our disposal and the added burdens which the struggle for development throws upon the nation are all new phenomena, without parallel in the earlier period. Some attitudes carried over from the past have inhibited reform in administration and the streamlining of machinery. For instance, old notions of the relative place of official and non-official in national life persist. We still hesitate to pay men generously according to the worth of the work demanded of them and the training and equipment they must bring to it, and so fail to attract talent into vital fields like agriculture, education, research and social service. For a job that is worth doing, frequently we are not willing to provide enough men of superior calibre to do it well. We have not yet learnt to regard mistakes made in good faith for what they truly are, namely, the process by which men, institutions and nations learn their way to higher levels of performance. Above all, we often fail to provide the framework within which men can work with sufficient confidence, responsibility and initiative. In general terms no one will wish to deny the need for change in these and other directions, but when it comes to specific problems and solutions, frequently the approach is niggardly and acts as a constraint on responsible decision-making, speed and orientation to action, without which a complex administrative structure must find itself clogged and pulled back from within.

**W**HILE our immediate concern is with the manner in which various projects and programmes in the Five Year Plans are carried out, it is necessary to remember that Plan implementation is only a major projection of the broader problem of speed and efficiency and responsiveness in administration. Doubtless, because of the Plans, the problem itself gains new dimensions and calls both for closer analysis and for more far-reaching measures. Here it is possible to touch upon only a few of its many ramifications. The heart of the matter is, firstly, to provide a framework for responsible initiative at each level, within each agency and on the part of each individual and, secondly, to ensure that those to whom responsibility is assigned shall be accountable for the results. Given these two conditions, there are special problems of application to different areas of Plan administration, such as (1) policy and planning, (2) regulation, (3) management of undertakings, (4) extension, (5) public participation and (6) administration in relation to the citizen.

There are two other major aspects of the problem of administration whose implications run right through the structure. The first concerns the relative role of democratically elected bodies and the public services in the execution of policies and programmes. The second relates to the most important role of State Govern-

ments in formulating and executing plans. It is not always recognised that in the last analysis efficiency in implementation, whether of Plan programmes or of the ordinary tasks falling upon Government, depends as much on correct policies and decisions, in which the Central Government has a large part, as on the manner of their execution at the level of the community, where the dominant share is that of State Governments. The partnership, on the one hand, between democratic bodies and the public services and, on the other, between the Centre and the States implies not only common objectives but also common obligations and common standards, which it must be the equal concern of them all to uphold.

**T**HE importance of reorganising the administration and administrative procedures so as to facilitate responsible action and initiative at each point has been stressed in the Third Five Year Plan. The main elements which weaken administration from this aspect can be readily identified. In the first place, the objectives of policy and the tests and criteria to be adopted need to be stated explicitly. Often, they are set out in a form which leaves much to individual discretion or can be so interpreted. In other words, thinking on the general aspects of a policy should be carried to a degree of precision and sharpness required for effective implementation. In the second place, insistence on elaboration of the operational aspects of a plan on the part of those charged with execution should be regarded, not as cumbersome detail or excessive instruction but as an organic element in the plan, being at the very least an appendix to the text, if not part of the text itself. This operational plan must indicate the exact stages in which the job is to be done, the period assigned to each part of the job and the requirements in terms of men, material and finance, and in each case the estimates should be supported by authentic study. Where only tentative indications are feasible, they will be subject to change, and this should be clearly known. As the work advances, greater accuracy will come and uncertain features will be replaced by more definite data. Inadequate operational plans have been perhaps the weakest link in all Plan implementation. This is to be traced to the novel nature of the tasks now being attempted and to the fact that in our administrative tradition operational aspects were left to be worked out by executive agencies and by men on the spot. This would be perfectly appropriate if the main resources they needed were largely at their command, as was the case in the administration of law and order and land revenue. Under planned development, the links between overall planning of capacities, materials, foreign exchange and other resources and planning at different levels are much more complex and only detailed operational plans can ensure the necessary interdependence in action.

**G**IVEN clearly formulated policies and plans, the next step must be to ensure that the sinews are made available or, in other words, those entrusted with responsibility have means at their disposal by way of budgetary allocations, foreign exchange, materials and personnel to fulfil their tasks. There is much in the existing arrangements that calls for marked improvement. To a large extent, the issue turns on where the line should be drawn between central control and allocation decisions and initiative and freedom of action on the part of administrative and executive agencies. Experience suggests

that at the present stage, there should be much greater readiness to delegate in favour of executive agencies acting within the general framework of policies and procedures which are laid out in advance. Over a large area the existing practice of consultations and individual references should give way to meticulous pre-planning and regular flow of information on action taken and results attained. In no other way can the need for greater co-ordination on the broader aspects be reconciled with the equal need for the largest possible initiative in execution.

To a large extent, in administration we have been employing old tools to do new jobs. Many of these are good tools and can be adapted and improved, but they have to be supplemented as rapidly as possible in other ways. In addition to operational planning or programming, great stress must now be placed on systematic statistical and quantitative data, management reporting systems, establishment of satisfactory criteria for evaluation and performance budgeting. We should also move as rapidly as possible in the direction of mechanical computation. Moreover, in each field decisions and policies should be increasingly supported and tested on the basis of technical and scientific as well as economic and social research.

**W**ITHIN the space of this article, it is not possible to spell out the implications of the general approach outlined above for widely different aspects of administration, such as the management of public enterprises, extension, supplies and technical assistance, administration of controls, the role of voluntary organisations and problems of communication between different levels of administration and in relation to the general public. Even in a wholly unified and bureaucratic structure, these problems would by no means be easy to resolve. They are all the more difficult within a system in which, on the one hand, democratic institutions function at all levels down to the village and, on the other, the Centre and the States have entered together upon tasks of gigantic proportions. On these important aspects only a few words need to be said in this place.

In an open society, at each level in national life, democracy demands close working co-operation between non-official representatives and leaders and the public services. The relationship between these two groups of workers is well established at the national and State levels and in parliamentary practice generally. However, with the introduction of Panchayati Raj, there are new problems within the district structure. Here the distinction between planning and implementation, between decisions of policy and principle and execution on the spot is inevitably less sharp, but must still be drawn. For a long time, administrative and technical support for development at the local level must come from above. It is necessary to recognise this in the very interest of Panchayati Raj institutions. This implies a clear definition of responsibilities devolving upon technical and administrative personnel serving Panchayati Raj institutions. Above all, they are servants of the community as a whole, not of individual factions, and must carry on the administration without fear or favour in terms of the general policies laid down by the State Government and

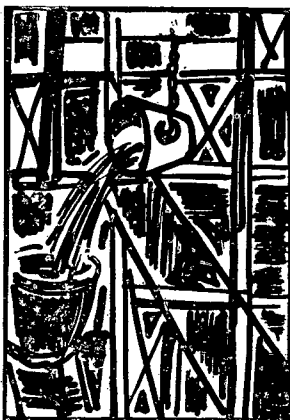
*(Continued on Page 63)*

# Our Strategy Not Doctrinaire

## WE MUST BUILD UP TECHNICAL KNOW-HOW TO LESSEN RELIANCE ON OTHERS

T. N. SINGH

OF late the growing dependence of under-developed countries, and of India, on foreign financial aid for purposes of industrial development has created a great deal of controversy in the aid-giving countries and a certain amount of misgivings in the countries which receive the assistance. Unfortunately, considerations other than economic have crept into this controversy. When an under-developed country embarks on a sizable programme of economic development, the need for assistance from advanced countries increases progressively in the first few years despite the growth of its industrial potential. Even as the requirements for imports of capital goods and machinery go up with a widening of the industrial base, the imports of industrial raw materials and spares and parts on maintenance account also mount up progressively. Many under-developed countries, despite their predominantly agricultural economy, had previously no balance of payments difficulties; but today they find themselves confronted with serious foreign exchange problems.



It has been noticed that this growing requirement of foreign exchange and assistance, which should be indicative to the success of the policy of aid by developed countries, has paradoxically made Aid Club countries more and more critical of the industrialisation programmes of the under-developed nations. If the aid-receiving countries attach importance to certain ideals and socio-economic objectives, they are criticised by certain political groups in the aid-giving countries on doctrinaire grounds based on free enterprise and *laissez faire*. This is rather an unfortunate development. For instance, certain industrialists associated in the aid programme have of late been politely suggesting the abandonment of certain socio-economic policies intended to help planned development and accusing aid-receiving countries of being doctrinaire. Even where mixed economy has been an accepted policy of economic development, public sector proposals are deliberately being discouraged. The necessary regulatory measures which were adopted in the interest of planned development have become a subject of criticism on the ground that they inhibit private enterprise. I fail to understand why persons who are averse to a doctrinaire approach themselves base their criticism of industrial planning in India on doctrinaire grounds in the name of free enterprise and *laissez faire*. I claim that India has successfully shown the way to rapid economic development through democratic planning. When big business and influential persons in India and abroad mount their criticisms at the time of

meetings of Aid Club countries, one cannot help feeling that this amounts to an attack on internal economic policies of aid-receiving countries.

Let us visualise what would happen in our country if we were to give up all regulatory measures under the Industrial Development and Regulation Act. Proposals by private enterprise will in all probability have to go through irrespective of their priority and importance provided the entrepreneurs are able to find the necessary foreign exchange and internal resources.

In such a situation it may happen that a large number of sophisticated consumer goods industries depending on imports of a variety of chemicals, metals and other intermediate goods may flourish for a time as there is a growing internal market. Such industries may also have high profits as the internal prices, if not controlled, are likely to run at comparatively high levels. But in such a system the balance of payments position is likely to become still more difficult. Payments will have to be made for capital goods imported for the consumer goods industries

as well as for large imports of intermediate and penultimate industrial raw materials to keep these industries going. Because of the high prices ruling in the internal market there is little prospect of any increase in export of these new goods to pay for the larger imports. Such a situation cannot last for long and the State will sooner or later be compelled to step in with probably more drastic regulatory measures. I am sure no one would suggest our pursuing such a policy in India.

Even with our insistence on exports and a number of export incentives given to industries which are being set up we find that they are unable to make any headway. In most cases they are competed out of the world market. In other cases, no amount of incentives for exports seem to compensate the manufacturers for internal prices which they get for their goods. Based as most of these sophisticated consumer goods industries are on large imports of intermediate and basic raw materials, their products cannot compete in the world market. Further, as most of these industries have been started in collaboration with foreign concerns who have their far-flung world trade interests, the latter are not interested in developing an export market for Indian products. The balance of payments position is thus likely to become still more difficult. It is, therefore, necessary for an underdeveloped country to develop the basic and intermediate industries as much as possible provided it has got the necessary natural and other resources for the purpose.



OUR experience of twelve years of planning leaves no room for doubt that today there are not enough resources with the private sector to enter the field of basic and intermediate industries like steel, electricals, chemicals, fertilisers, machine-building etc. which require very heavy investments. Consistent with our flexible approach in such matters in the Third Plan we suggested to the private sector to establish a number of fertiliser factories and even steel alloy factories but the performance of the private sector in this regard so far has been disappointing. Out of the five or six licences granted for fertiliser factories, not more than two are expected to materialise. All the licences for the steel alloy industry in the private sector have been surrendered. An under-developed country has, therefore, whatever its socio-economic ideology, hardly any choice except to start these basic industries in the public sector.

Referring to the case of the fertiliser industry, even *The Economic Times* of Bombay, a paper controlled by big business, writes: "Trying to read the foreign investor's mind is, however, of little use. His final decision depends substantially on factors, economic and other, which are outside India's control. In any case, it is doubtful whether the structure and pattern of this key industry can be left to be settled by what may or may not appeal to collaborators. The emphasis should, therefore, be placed on getting assistance on a basis that leaves the Indian side, whether in the private or the public sector, free to make its own policy decisions". This, I think, represents the views of an important section of the private sector in India regarding foreign collaboration. I need not make any further comments.

ONE of the criticisms that we have been hearing from economists and other experts in India regarding the new industries that are springing up in all parts of India is the high cost of their products and their inability to compete in the world market. This is a serious position which requires consideration. India has welcomed foreign capital and foreign collaboration in a large number of industrial enterprises. Foreign investors, it appears, are mostly interested principally in sophisticated consumer goods industries the products of which will find ready consumption internally. They do not mind starting even uneconomic units if the internal demand cannot justify a larger production. We have generally not been able to secure foreign collaboration for industries which are also export-oriented. There is a growing opinion in the country that we are paying too dearly for foreign collaboration. I do not wish to express an opinion just at this stage for this requires a detailed examination. However, I will content myself by drawing attention to the unhappy fact that our products are unable to compete in the world market. I have also come across criticisms regarding the high cost of capital goods which we are importing today under various aid agreements.

Others complain about inefficient management and low productivity in our factories. I think the whole problem of the cost structure of our industries needs looking into. A correct policy in regard to foreign collaboration should emerge after such a study has been completed.

At the same time hardly anybody can deny the need for rapid development of the machine-building industry and the fullest exploitation of our natural mineral resources. The establishment of the three big steel plants in the public sector, further expansion of these and the two steel plants in the private sector and the growth of our heavy machine-building and engineering industries in the near future should help us in our march towards our goal of a self-reliant economy. But much more has to be done to establish the heavy and medium machine-building industry on a sound base. We require a large number of engineers, technologists, designers with sufficient experience and knowledge. The Planning Commission has been emphasising the need of setting up organisations for consultancy, scientific and technological research, designs and construction organisations, manned by competent personnel. It may be desirable to secure the services of foreign technicians even to strengthen these organisations in the country. I firmly believe that the answer to our problems of foreign exchange and rapid industrial growth lies in the development of such technical personnel and technical organisations at the earliest possible date coupled with the development of the important basic and intermediate industries.

## ENTERPRISING PUBLIC ENTERPRISE

**BHARAT ELECTRONICS**, Bangalore, has begun manufacturing radar equipment for the Defence services. It will also make advanced types of wireless communication sets for use at high altitudes.

BEL's production exceeded Rs 3 crore in 1962-63, which was Rs 27 lakh more than the target. The sales increased to Rs 3.61 crore from Rs 2.48 crore in the previous year.

**HINDUSTAN ANTIBIOTICS**, Pimpri, has released a new product, Hamycin, for sale in the market. It is a cure for a number of fungal infections of the skin, nails and scalp. The manufacturing process was evolved at Pimpri.

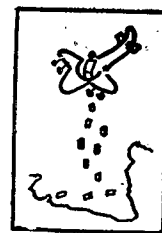
Another new product of Pimpri is Octacillin, effective in venereal diseases. Its commercial production has been taken up.

Last year Pimpri sold medicines valued at Rs 4.30 crore.

**HINDUSTAN SHIPYARD**, Visakhapatnam, made a gross profit of Rs 23.37 lakh in 1962-63.

**A MINERALS TRADING CORPORATION** has been created by bifurcating the State Trading Corporation. It will have an authorised capital of Rs 2 crore. The old STC will look after all trade excepting that in minerals and metals.

*International assistance to our  
development has been generous but  
it is no substitute for self-help*



# FOREIGN AID

## *Need to Increase Productive Capacity & Ability to Repay*

G. L. MEHTA

OVER the duration of the Plans, India has received massive and increasing assistance from foreign countries for its development effort. The motives of donor countries in providing such assistance to India as to other countries are complex: They vary from a genuine if imponderable feeling of humanitarianism to enlightened self interest and their desire to assist economic development of backward countries to expectations of some kind of political *quid pro quo*. If a wish to make friends and influence people is a "string", then there is some sort of string attached to such aid; indeed, the strings are also evident as when the donor countries, whether communist or non-communist, even go to the length of cutting off aid in case of sharp differences on issues of foreign policy. It would, however, be ungracious for recipient countries to question the sincerity of purpose of countries providing such assistance or doubt its value in buttressing their economies.



AS MENTIONED above, foreign aid has played an increasing role in the financing of the Indian Plans. This can be seen from the following Table:

Table I: *External Financing of India's Plans*

	In Rupees crore		
	First Plan*	Second Plan*	Third Plan†
1. Total Financing	1,960	4,600	7,500
2. External Assistance	188	1,090	2,200
3. Average Percent (2:1)	10	24	29
4. Marginal Percent	—	34	38

\*Actual  
†Plan

The important thing to note is that a large part of the increase in Plan outlays for the Second and the Third Plans is based on foreign assistance rather than on increase in internal savings.

This increased reliance on foreign aid has been

made possible by higher authorisation from all sources, as shown below:

Table II: *Authorisation of Foreign Aid*

	First Plan	Second Plan	In Rupees crore	
			First two years	Third year from Consortium
International Institutions	57.3	262.7	202.6	116.6
Canada	32.3	73.5	33.4	14.5
France	—	—	28.6	9.5
Germany, Fed: Rep. of	—	136.0	126.1	47.3
Italy	—	—	25.6	21.4
Japan	—	35.5	42.9	30.9
U.K.	0.4	123.0	126.6	40.0
U.S.A.	213.6	1,527.1	464.1	207.1
U.S.S.R.	64.7	320.2*	—	—
Other countries	13.5	74.2†	26.4	13.3
Total	381.8	2,552.2	1,076.3	500.6‡

\*Includes Rs. 238.1 crore earmarked for the Third Plan

†Includes Rs. 42.1 crore earmarked for the Third Plan

‡In addition, Rs. 28.6 crore have been made available outside the Consortium.

The utilisation of the assistance is shown in the following Table:

Table III: *Utilisation of Foreign Aid*

	In Rupees crore		
	First Plan	Second Plan	Third Plan (two years)
Authorised	381.8	2,552.2	1,076.3
Total available	381.8	2,732.3	2,378.9
Utilised	201.7	1,429.7	784.9
Balance	180.1	1,302.6	1,594.0

It may be noted that the average authorisation went up from about Rs 75 crore per annum during the First Plan to more than Rs 450 crore for the Second Plan and about Rs 600 crore for the first two years of the Third Plan.



OF THE TOTAL authorisation of Rs 4,010.3 crore till the end of March 1963, Rs 297.4 crore have been given as grants and Rs 2,521.9 crore have come in by way of loans, the balance being other forms of assistance. This latter amount has to be repaid—in fact, already the annual servicing cost exceeds Rs 100 crore. This makes it necessary that the funds be utilised in such a way so as to increase our productive capacity and thereby our ability to repay.

Our record in this respect is not one which can be

called unsatisfactory, as shown by the purposewise distribution of foreign loans.

Table IV: Purposewise Authorisation of Foreign Loans/  
Credits

	In Rupees crore		
	First Plan	Second Plan	Third Plan (2 years)
<i>Agriculture</i>			
Wheat Loans	90.3	15.7	—
Agricultural Development	3.4	—	26.9
<i>Industry</i>			
Steel and Steel Projects	78.6	211.7	38.6
Orissa Iron Ore Project	—	12.8	—
Industrial Development	19.4	755.3	623.5
<i>Power</i>	19.6	62.3	117.3
<i>Transport &amp; Communications</i>			
Railway Development	15.6	195.3	76.4
Ports Development	—	20.5	18.6
Others	—	14.8	56.5
<b>Total</b>	<b>226.9</b>	<b>1,288.4</b>	<b>957.8</b>



HOWEVER, there is hardly any cause for complacency in regard to our foreign exchange position. We have already exhausted our foreign currency reserves (except for the minimum required to support our currency) and are entirely dependent on our exports and foreign aid for meeting the annual foreign exchange requirements of the economy. These requirements themselves have grown over the period. Firstly, as we have put up more factories, our requirements of maintenance imports have gone up, and, even after keeping consumer goods imports to the minimum, our total requirements for maintenance imports exceed Rs 700 crore per year at which level they have been fixed for the Third Plan period; this is much higher than our rate of imports at the time planning began, and, if imports (even of only essential goods) were to be freely allowed, would be still higher. Secondly, as the plans become larger in magnitude and are oriented towards industry, their import content grows more than proportionately; this is obvious from the figures of the marginal rate given in Table I. At present, our requirements on capital goods account must be at the rate of Rs 500 crore per year.

As against these requirements—which, in future, will increase rather than decrease in absolute amounts—our exports have remained rigidly immovable—despite incentives, compulsion and cajoling—at about Rs 650 crore for the last several years. So far the gap has been filled by the generous assistance provided by other countries.

Foreign aid and the philosophy underlying it have undergone noticeable changes over the last few years. Of these, two are of relevance to us. (a) The terms, on which foreign aid is given under the impact of the realisation of the very enormity of the problem facing underdeveloped countries, have become increasingly soft although the recent decision of the U.S. House of Representatives to impose an interest charge of 2 per cent should cause concern. It is now becoming an acceptable practice to provide loans for periods from 30 to 50 years and not to charge interest but to levy a service charge up to 1 per cent per annum: these are the terms on which the U.S. Agency for International Development, as also the International Development Association, an affiliate of the World Bank, provide funds. We must not also overlook the force of example: under pressure,

other countries have also been made to soften the terms of their loans. (b) Secondly, an increasing part of foreign aid is not being tied to projects though a larger part of it is being tied to purchases within the aid-giving countries.

Both these developments are of particular significance to India. As India's foreign exchange commitments have grown, her repayment liabilities (both capital and interest account) have grown, and, as mentioned above, already exceed Rs 100 crore a year. Thus about 15 per cent of our exports and 20 per cent of the foreign aid we are at present getting is almost neutralised as a result of our past commitments. The significance of the revised terms is that they at once reduce the total amount payable on the loans because of lower interest payments and the amount payable each year as a result of the longer period of amortisation. Moreover, India is at present faced with the problem of operating at full capacity the industries it has set up; non-project aid would prove helpful in enabling us to bring in the required maintenance imports.



HOWEVER FRIENDLY AND generous foreign countries are, it behoves us to maintain our house in order and minimise the call that we make on their generosity; this is a matter not only of propriety but of self-interest.

The reasons for this are not far to seek. Firstly, as Table II shows, foreign aid to India has stabilised at an annual figure of about Rs 600 crore: as the negotiations this year showed, it would be imprudent to expect much more. If, as is only likely, our plans are going to be bigger in future and our need of foreign exchange larger, we would have to provide for the additional foreign exchange on our own—that is, from increased export effort. This is a challenge we cannot avoid or postpone.

Moreover, even at present, a part of the foreign exchange assistance is not tied to projects—in other words, it is being used to meet current maintenance import needs. It, therefore, hardly adds to our future productive capacity. This is a situation which we can hardly afford to accept without jeopardising our future balance of payments position.

If we accept the goal of providing by our own effort the foreign exchange required for all our maintenance imports as well as the imports required for importing capital goods above the present level, a third objective is no less important, namely to build up our foreign currency reserves. During the last five years, we have been leading a hand-to-mouth existence in respect of foreign exchange account, reducing considerably the flexibility in making imports at opportune time or from the most economical sources. In such a situation, every project, whatever its importance to the economy, involving import of goods, becomes the subject of approval by aid-giving countries before we can undertake it.

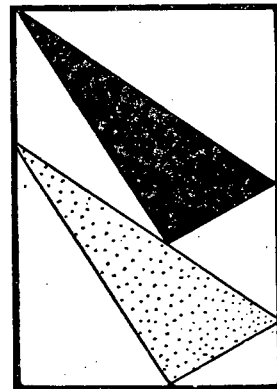


WE HAVE BECOME dependent—in fact, too heavily dependent—on foreign aid, and, in the process, have lost to a considerable extent the initiative in planning and the freedom in using the funds. Foreign aid can only be a temporary prop to the economy, not a permanent basis for long-term planning. We have to realise that foreign aid is no substitute for self-help.

*Higher degree of harmony  
is essential.*

## RELATIONS BETWEEN PUBLIC AND PRIVATE SECTORS

BHARAT RAM



DEVELOPMENT is conditioned and can be accelerated by rational division of activities between people and Government. However, such division is not a universal imperative, and even in regard to the same country a division or diffusion which may be deemed to be good at any one time may prove to be an obstacle at some other time. It is true that there are many fields of investment in which private investment may not come in freely, although these may be instrumental in promoting rapid economic progress. Apart from spheres like education and public health, individual enterprise may not be willing to implement projects which do not ensure a reasonable return, or able to undertake programmes which entail large financial commitment.

This mutual sharing of efforts has also to be based on considerations of expediency, as the actual working of policy in our country in the last decade has adequately demonstrated. We started off with the Industrial Policy Resolution which set out a given division of activities between the two sectors of the economy, as also a common field. Experience has shown that there has essentially to be close association between the two sectors at different points, and unless a higher degree of harmony is achieved, the slow rate of growth of one sector will itself depress the potential growth of the other, and therefore of the economy as a whole.

The Third Plan had indicated that the growth of the economy has progressively to take the form of a co-operative endeavour. This aspect was once again emphasised at the Seminar on Problems of Public and Private Sector Industrial Undertakings organised by the Federation of Indian Chambers of Commerce and Industry in August this year. The Seminar revealed the identity of interests and the similarity of attitude and purpose. There were many problems in common to which almost the same solutions were applicable. In view of the close relationship between the two sectors, a consistent approach has to be evolved to promote the maximum growth of the economy as a whole.

### *Common Pool*

Co-operation between public and private sectors has two aspects arising from economic interdependence at different stages. These relate mainly to finance and economic co-ordination. At each stage greater co-operation is possible and would ensure a faster growth of the economy.

Both the public and private sectors have to secure finance for development from a common pool. It is true that in a growing economy the size of resources is not constant; rather, it increases faster than the rate of development. But the manner in which the public sector obtains finance from the people can be a factor which influences the attitude and the behaviour of people towards working, earning or saving. The financing of the first two Plans, however, does not give any sure indication that the public sector has adopted the best means to divert resources from people to Government. The Plans have depended overwhelmingly on taxation which, because of its compulsive nature, and its adverse influence on the ability and willingness to save, has depleted internal resources and depressed the rate of growth of the economy.

The First Plan was financed to the extent of about 13 per cent from additional taxation. In the Second Plan, additional taxation was about 23 per cent of outlay in the public sector. It was estimated that the Third Plan will involve additional taxation of the order of Rs.1,710 crore, at the Centre and the States together, over the period of five years. With a balance from current revenues aggregating Rs 550 crore, these were expected to finance more than 30 per cent of the programmes of investment in the public sector. However, the level of taxation implied in the first three Budgets of the Third Plan will yield over the five years a revenue exceeding Rs 2,250 crore. Thus, the yield from additional taxation will go beyond the Plan targets by over Rs 540 crore according to the estimates of the Planning Commission itself. The additional tax effort has thus been too heavy, particularly in the context of the smaller rate of growth of the economy than the Plan had visualised.

### *The Capital Market*

It would then appear that the private sector will be left with resources smaller to the extent that the public sector has drawn resources from people in excess of the Plan estimated. Already there was an anticipated gap of Rs 100 crore between investment and resources in private organised sector. The additional diversion of money from people to Government will widen this gap further. Even before the last Budget proposals became operative this shortage of rupee resources had begun to be felt. The capital market has been in a depressed condition for a long time. Share prices have declined in the last year by over 16 per cent.

There is investor resistance to new flotations which, in most cases, have not been fully subscribed and have been substantially held by underwriters. These are indications that the diversion of resources from people to Government has exceeded useful limits.

The second major field of co-operation between public and private sectors relates to the technical co-ordination between different industries. Production of engineering industries, for example, is regulated by the output of iron and steel, or the growth of construction by the output of cement. This technical co-ordination becomes an essential condition for rapid industrial growth. In the first two years of the Third Plan, however, technical co-ordination was not complete and industrial production remained depressed. Industrial output increased at an annual average rate of only about 8 per cent as compared to more than 10 per cent in earlier years. Particularly in cement, machinery and cotton textiles, the increase in production was too small to meet the needs of the economy and the people.

The production of agriculture-based industries like textiles did not increase because of the smaller agricultural yield. The production of engineering industries was limited by the availability of basic and other components which are largely imported. However, all these industries depend overwhelmingly on iron and steel, coal, transport and power. The shortfall in these commodities and services, which became acute in 1961-62 and was only partly relieved in 1962-63, was responsible, in a large measure, in restraining the growth of engineering and other industries. In other words, the slow growth of industrial production in the first two years of the Third Plan has been mainly due to the technical imbalance between industries in the public and private sectors. The shortage of coal, the inadequacy of transport facilities, the non-availability of electricity and the stringency of foreign exchange occasioned mainly by slow implementation of projects, were the principal factors which withheld the growth of industrial production. Most of these shortages have continued, although with diminished intensity, even into the third year of the Third Plan.

In many industries the implementation of programmes in the Third Plan has been so much behind schedule

that, without vigorous efforts in the remaining years, it will not be possible to recoup the loss in time already incurred. Some of these projects have been delayed because of factors beyond the control of industry and Government. The Bokaro steel plant and the nuclear power station at Tarapore have been delayed because of "indecision" on the part of U.S. Government. But the additional time involved in the construction of numerous power stations, heavy machine building plants and allied projects, the Barauni Oil Refinery etc. in the public sector, has been principally due to slow-moving administrative machinery of our own Government. The expansion of three public sector steel plants and the construction of special alloy steel plant at Durgapur are not likely to be completed according to schedule. The State-owned projects show even smaller progress.

### *Time-Consuming Procedures*

The slowness of administration has its impress on the development of private industry. The whole procedure for securing consent of Government to investment and foreign collaboration, or sanction of credit from official sources, is lengthy and time-consuming. In many cases the delay involved in the completion of formalities before investment could be undertaken, has exceeded three years. Such a long lapse of time creates additional uncertainty and hesitancy in the minds of foreign investors who have competitive opportunities in other countries.

The admitted slow rate of progress in the Third Plan is thus a reflection of the imbalance between economic objectives and policies, and between a slow-moving administration and changing conditions. The public and private sectors are not developing in a co-ordinated fashion, mainly because the type of administration is unsuited to the size of public sector. A situation has emerged in which the growth of private industry is limited by the slow progress of public enterprise in fields like power, transport, steel etc., and by policies in respect of finance and taxation. If the forces of growth are once again to be enlivened there has to be a reorientation of the administrative framework to expedite the implementation of Plan projects and substantive reforms of fiscal and monetary policies.

**J**EEPS are for all roads and all kinds of weather. They were designed as a general purpose vehicle for military use. The word jeep itself comes from G.P., abbreviation of General Purpose. After the war jeeps have come greatly into civilian use, and in our country there was a time when the Community Development department was referred to in rural areas as the jeep department.

Our Army needs jeeps and our ordnance factories last year began making a tough vehicle called Jonga. Since the Emer-

### **JEEP CALLED**

## **Jonga**



gency the production has been stepped up to keep pace with

the increased demand.

Fitted with a four-wheel drive and a powerful 120 H.P. engine, the Jonga climbs steep gradients and easily carries 400 kilograms of cargo even over rough ground. It is manufactured with Japanese assistance.

Ordnance factories are also manufacturing three-ton 'Shaktiman' trucks with West German collaboration and one-ton Nissan trucks with Japanese collaboration. More than 1,600 Shaktiman trucks and about 2,000 Nissan trucks were manufactured during the last two years.

# MANAGERS AND LABOUR IN LARGE INDUSTRY INCREASINGLY CONSCIOUS

## The Importance of Productivity

### SURE PROGRESS AT NUMBER OF POINTS

H.V.R. IENGAR

WHEN I was in the United Kingdom recently, I called on the British Productivity Council and asked them why it was necessary for the U.K. to have a productivity movement at all. That country has been in the forefront of the industrial revolution and been trading internationally in manufactured goods longer than any other country and it seemed, *prima facie*, difficult to understand why a productivity movement should be specially organised. The answer was that the U.K. was living in a highly competitive world, that other countries had caught up with them in technology, and that, if they were to maintain their standard of living, it was absolutely essential that they should reduce costs and improve quality and, for this purpose, to make use of every productivity technique that was available.

The compulsions in India are different. We are operating in what is virtually a closed economy in the sense that, because of a grave shortage of foreign exchange, our imports are rigidly controlled. Moreover, in view of the shortage of domestic resources such as capital, transport, electric power etc., there is also close control over industrial licensing and, consequently, the market is not subjected to the normal forces of competition except to a very limited extent. The result of all this is that the manufacturer is able to sell virtually anything that he produces irrespective of price and quality.

This situation is causing two distortions: the increase in domestic prices, combined with inadequate appreciation of quality, operates with severity on the domestic consumer; and the disparity between domestic and international prices prevents us from earning vital foreign exchange.

#### *Work of the N.P.C.*

It is against the above background that the productivity movement in India has to be judged. The National Productivity Council was set up in February 1958, with the result that it has now had a life of some five and a half years. It owed its origin principally to the initiative of American authorities, and has continued to get the

advantage of substantial assistance from the U.S. Government. It has recently also attracted the attention of the Governments of France and Germany, and it may be said, therefore, that there is a somewhat international character in the matter of the assistance that the National Productivity Council is getting. In the domestic sphere the structure of the Council ensures that it enjoys the support of management, of organised labour as well as of Government. One-third of the Governing Council consists of representatives of each of these groups and they have throughout worked in a spirit of understanding and co-operation.

It is, of course, easily possible in this article to give statistics about the activities of the National Productivity Council, the number of Local Productivity Councils, the number and variety of training courses, the number of persons sent abroad for specialised courses, the work of study teams and the like. The figures will be found in the annual reports of the National Productivity Council. Beyond all the statistics contained in the reports lies the main question as to whether the necessary impact has been made on the *minds* of management and labour. For it is only when these are seized of the importance of making use of productivity techniques and are mentally prepared to adjust their approach to problems that progress is really possible.

The approach to the problem was well stated in the *Third Five Year Plan* in the following words:

“Neither the exercise of their organised strength in industrial conflicts, nor laws and the intervention of the State can help the workers much in realising their aspirations. Their gains can arise only out of the strength and dynamism of the economy, the only enduring basis of which is a rising level of productivity. No increase in profits which does not come out of improvements in productivity but has its origin in current scarcity and the stresses of development, can be regarded as a sign of prosperity. Productivity has many facets and it suffers because of the one-sided and rigid approach which is frequently adopted in dealing with it both by the employers and the workers. Rationalisation of effort in every direction is the true basis of productivity.....”

It is important to notice that the reference in the Third Plan is to the rigidities of thinking, both of management and labour. The question is, to what extent have these rigidities been softened, and are management and labour now really appreciative of the need for utilising productivity techniques?

I think it can be stated, speaking of large-scale industry, that on the mind of management a definite impact has been made as a result of the activities of the National Productivity Council as well as of associated bodies such as management associations. This process has been assisted by the fact that we are witnessing in India the beginnings of the managerial revolution that has taken place in industrially advanced countries in the sense that management is being transferred more and more to qualified professional staff rather than to owners and their sons. The expression "industrial engineer" was hardly known a few years ago; work study was a relatively unknown innovation; statistical quality control was regarded as belonging more to the domain of statistical theory; and cost and budgetary control was regarded more as a finesse than as an established management tool. All this has been changing; and, certainly amongst the larger industrial groups in the country, there is a growing appreciation of the nature of the tools now available and of the need of employing them with a view to raising productivity. A great deal, of course, remains to be done, but, on the basis of the progress achieved during the last five and a half years, one may reasonably conclude that satisfactory progress in this direction will be maintained. It must be conceded, however, that this statement is true only of relatively large-scale industry. Medium and small-scale industries have yet to feel the impact of the productivity movement.

### *Attitude of Labour*

In regard to labour, the position is very different. Of necessity, management is better able to appreciate the need for productivity techniques, both because it consists of people who have had better chances of education and travel, and also because the advantages of introducing new techniques become evident to them pretty soon.

Labour finds it more difficult to understand the need for these techniques because of a suspicion, which is natural in the circumstances of our country with a very high rate of unemployment and under-employment, that the application of productivity techniques results in the reduction of job opportunities. In other words, the workman begins with a suspicion that the application of work study, for instance, is merely a device to increase profits by an increase in workload and a retrenchment of staff. To make the workman appreciate the need for introducing productivity techniques is, therefore, an uphill task, except where it can be demonstrated that by such techniques profits will increase and that he will get a share of such profits.

One of the projects that the National Productivity Council has undertaken is a study on the sharing of the gains of productivity. This study is not yet complete. In the meanwhile, it is satisfactory to note that, having regard to the difficulties inherent in the labour situation in India, the response of workmen to the study of productivity techniques has been better than may have been supposed. The National Productivity Council hopes to demonstrate, by the publication of concrete examples, that increased productivity does mean a benefit to labour. It may be hoped that when such a study is published, the response of labour will acquire further momentum.

One possible method of measuring the progress of productivity is to examine statistics of productivity

from time to time. Unfortunately, this technique suffers from serious difficulties. The basic difficulty is that increase in productivity could be, and often is, the result of a variety of factors. Productivity may rise because of greater mechanisation or the use of more sophisticated equipment. It may rise because layout and planning have been improved. It may also increase because labour has increased its efforts. To isolate one single factor such as, for instance, the contribution of labour to increased productivity, is statistically a most complicated exercise. Subject to this disqualification, it is, I think, possible to say that the productivity of labour, which is what most people in India understand by productivity, has gone up in the last few years. Taking, for example cotton textiles, a very old industry in India, employment in the last few years has gone up by 15 per cent and output by some 39 per cent. This is an industry where no spectacular change has been introduced in the methods of production and the rise in productivity may be largely attributed to labour. Taking the whole field of textiles, that is to say, cotton, jute, and woollen, output has increased by over 47 per cent, whereas employment has gone up by only 5 per cent. More substantial increases in productivity are noticeable in some of the newly developed industries such as chemicals and the metal industries. It must be repeated that no precise statistical significance should be given to these figures and they may be taken merely as an indication of a trend. One sees more concrete evidence of an increase in productivity when one goes round the country and sees factories whose personnel have undergone courses in industrial engineering. Evidence accumulates that at a number of points some real progress is being made.

None of these is, in itself, spectacular, but that is not surprising. For what the productivity movement is trying to do is to induce a change in the psychological approach of both management and labour; and this change can only be *felt* at this time, and not measured.

## SNIPPETS

The Union Government has given Rs 6 crore to States for the current year to expedite their housing programmes. Of this amount, Rs 1.83 crore are grants and the rest are loans... The working of the 28 national laboratories has saved Rs 20 crore of foreign exchange since the first laboratory was set up in 1950.... The Indian Oil Company made a profit of Rs 60 lakh in 1962-63. This is its first profit.... The President laid the foundation stone of a milk project, costing Rs 1.2 crore, near Madurai on September 27.... Of the 35 milk supply projects to be set up during the Third Plan period, 30 will be in the cooperative sector.... A new training centre of the National Discipline Scheme will be opened at Chowki near Junagadh in Gujarat....

# Democratic Planning and the Administrator

K. SANTHANAM, M.P.

**E**FFICIENCY is the watchword of an administrator at all times and in all places. But the content of this term varies with the politico-economic structure of the society the affairs of which he has to administer. In a police State, the administrator has to be impartial and firm and abide strictly by the rules and routine of his office. If he can add to these qualities personal integrity and some sympathy for the people over whom he rules, he becomes the ideal administrator. His main function is to ensure a stability and, if change is inevitable, to see that it takes place as slowly and smoothly as possible. In an advanced capitalist democracy, the administrator has to be almost of the reverse type. He has to be amiable, alert, active and accommodating. His function is similar to that of the traffic policeman in a crowded city. He has to keep things moving. Ordered and quick movement is his motto.

In a totalitarian dictatorship, it is the business of the administrator to deliver the goods. If he has to make grain collections, he has to make them regardless of the fact that little is left to feed the producer. Ruthlessness towards all under him and unqualified obsequiousness before his superiors are his cardinal virtues. He is judged by his successes and failures. While the credit for the former may be appropriated by his superiors, he has to assume full responsibility for the latter. He cannot throw the blame on his subordinates, but he can tyrannise over them.

## *Commitment and Detachment*

In free India, which has embarked on a unique career of democratic planning, the successful administrator should endeavour to acquire the virtues of all these three kinds of administrators, and avoid their defects. He has to maintain peace and enforce the rule of law and be perpetually on the watch against religious and communal outbreaks. He has to maintain the record of rights of over five crore peasants. He has to organise relief in case of floods and droughts and other natural calamities, prevent the spread of epidemics, and do all other things which are inescapable to maintain the vast ocean of Indian humanity, the bulk of which has to live on the margin of subsistence. For this purpose, all the virtues

of the administrator of the police State are essential.

At the same time, rapid changes have been taking place during the last 15 years. The Five Year Plans have extended the functions of administrators and increased their numbers to such an extent that the work of the police State has ceased to be the major function of Government. Economic and social administration has come to be the main preoccupation of the administrator.

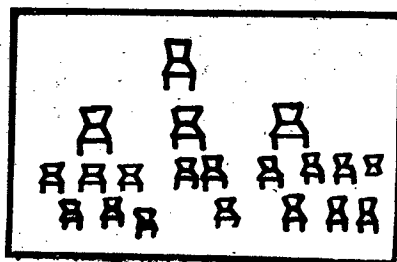
Political democracy has also made it difficult for the administrator to function in the old manner. He cannot now afford to be aloof from the people or operate from a high pedestal of authority. He has also to act quickly if he is not to be overwhelmed by the accumulation of work. While refusing to identify himself with the ruling party, he has to contribute by his efficiency and behaviour to its popularity. On the other hand, he has to resist improper influences urging him to depart from the path of integrity and impartiality.

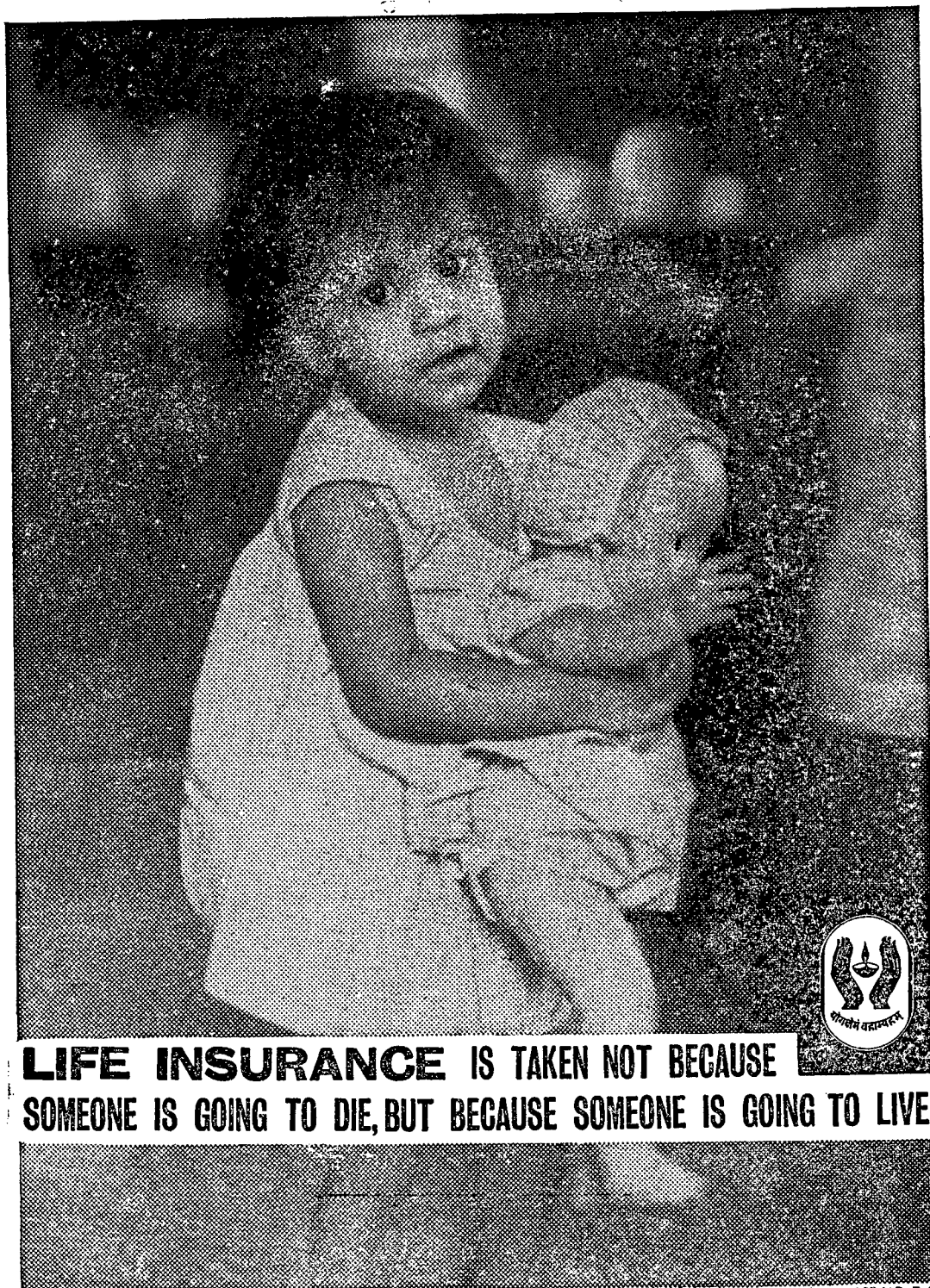
## *Vastly Diverse Tasks*

The Indian administrator has to function within the limits of law and democratic practice, and yet is expected to deliver the goods with the same speed and thoroughness as his colleague in a totalitarian State. He finds himself unable to punish a recalcitrant peon or a negligent clerk without resorting to an elaborate procedure, and yet he should run his office as efficiently as a business house. He cannot refuse to see any public worker. He has to dance attendance on Ministers, high officials and all kinds of committees and visiting teams who inspect or report on the progress of the innumerable plan schemes, and has to participate in conferences and seminars. But loud complaints are heard that there is inordinate delay in the disposal of his legitimate business.

The diversification of the task of the administrator is even more complicated and distracting than the variety of qualities and capacities he is expected to acquire. To illustrate the nature of the new tasks, I shall try to indicate briefly the work of a District Collector, a Director of Education, a Manager of a public undertaking, a Controller of Supplies, and a Secretary.

The District Collector has, as before, to maintain order in his





**LIFE INSURANCE IS TAKEN NOT BECAUSE SOMEONE IS GOING TO DIE, BUT BECAUSE SOMEONE IS GOING TO LIVE**

ASP/LIC-Z-2

district, collect the land revenue, keep the record of rights and dispose of revenue cases. But his major task today is to supervise the implementation of development schemes, particularly through the Panchayati Raj institutions. These institutions should, in theory, relieve the Collector and his subordinates of many of their responsibilities. But at present the success or the failure of the Panchayati Raj institutions depends to a large extent on the character and ability of the Block Development Officer, and the steady guidance he receives from the district authorities. The Panchayat and the Panchayat Samiti have to be gently persuaded as to what they should do and how they should do it. Even in the matter of the collection of contributions for local public works, the encouragement of district officials plays a significant part.

During the past one year I had to tour the whole country in connection with the work of the Study Team on Panchayat Finances. I found that Panchayati Raj was taking firm roots wherever it was nursed by enthusiastic and imaginative District Collectors. I am glad to say that I met a large number of such Collectors. The main difficulty of the District Collector of today is that the district and its population in many States are too large. In my opinion, it is wrong to have any district with more than a million population, if the District Collector has to function as an efficient development officer. Even there, he must be given a high-level assistant to look after the normal revenue and police functions. Wherever the development functions are delegated to the assistant, the latter was not able to show the same results.

Further, vertical functioning of the various departments of education, health, public works etc. in isolation has become inconsistent with democratic decentralisation. The Collector has, therefore, to work in close co-operation with other district officials. All of them have to be brought together in a District Council, of which the Collector is the chief. The Zila Parishad of Maharashtra is a bold experiment in decentralisation at the district-level, but I doubt if the present scheme of diarchy that has been set up will be more successful than the diarchy at the State level under the Montagu-Chelmsford Reforms.

### *Conflicting Claims*

If we take the Director of Education of a State, his main headache is the reconciliation of conflicting policies and the frequent changes in those policies. He is expected to achieve universal primary education and at the same time convert ordinary primary schools into basic schools. At the secondary level, senior basic schools, multipurpose schools, junior technical schools and up-grading of ordinary secondary schools into higher secondary schools present a variety of baffling and difficult problems, which he can neither tackle successfully nor refuse to implement the policies framed under the guidance of the Planning Commission. New ideas and schemes are always out-running the financial or technical resources. The length of the school course is sought to be changed from 10 to 11 or 12 years or *vice versa* and with each change, the entire curriculum has to be redrafted and elaborate measures have to be taken to phase the change-over. Midday meals have to be provided through complicated financial arrangements and the Panchayati

Raj institutions persuaded to construct school buildings to accommodate the annual rush of new pupils.

The running of public enterprises is perhaps the most difficult task thrown on the Indian administrator. I do not agree with those who think that they should be run with officers borrowed from private enterprise or non-officials chosen on political grounds. For one thing the really competent managers of private undertakings are paid fabulous salaries which no government can afford to pay. Secondly, private enterprise itself is so anxious to secure the services of retired officers that it is almost ridiculous to argue that they are not competent to run public enterprises. I have no doubt that, given proper training and adequate authority, our I.A.S. officers can become competent managers of public undertakings. It is, however, essential that once they are taken over to business management, they should be certain of a career as such which, in terms of emoluments and status, is not at all inferior to, and is if possible higher, than the routine administrative service.

### *Embarrassments & Temptations*

In many ways, the handling of licences, contracts and permits and the regulation of supplies are the most difficult and embarrassing tasks for the administrator. The opportunities for corruption are so great that even the most-honest officer is apt to live under a cloud. Yet these services are inescapable in any system of planning.

Finally, the position of the Secretary is a difficult and embarrassing one, especially in the States. To follow the policy laid down by the Planning Commission, to obtain the grants and loans from the relevant Central department, to make his own Minister feel that he is playing a significant part in the scheme of things and to resist political pressure in the promotion of officers and distribution of contracts, and still to maintain intact his personal integrity, requires character, intelligence and tact of the highest degree.

Thus, the responsibilities of Indian administrators under democratic planning have become difficult, distracting and complicated. It is no wonder that some are found wanting or unable to resist temptation. The real surprise is rather that so many have proved equal to their task. To give them proper training, to rationalise their work, to relieve them of unnecessary burdens, to entrust them with sufficient powers to perform their duties, to reward handsomely those who render efficient and honest service and to weed out and punish quickly and effectively those who are incompetent or dishonest, requires statesmanship of the highest order. At the same time, his work has become exciting, and for the intelligent and honest administrator the consciousness of playing a vital part in the economic and social evolution of India is bound to be a source of great inspiration.

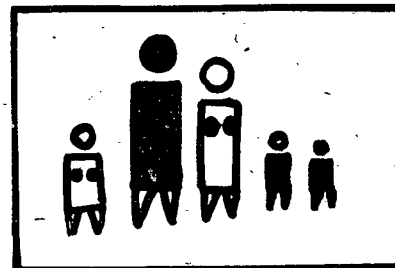
*The Planning Commission can only make plans but their implementation lies with the millions of this country. A few people working in offices cannot implement the Plans.*

—The Prime Minister in his Independence Day speech, 1953.

S. CHANDRASEKHAR

# FAMILY PLANNING

## *Awareness at Individual Level Must Improve*



THAT India's explosive rate of population growth is seriously impeding the rapid economic development of the country and that something effective should be done to reduce the country's birth rate is conceded by all thoughtful people. Secondly, that the Government has taken a courageous and progressive stand on the need for family planning and has embarked on a democratic and voluntary policy of population control is known all the world over. But it is not known for certain whether this national awareness and control policy have resulted in a definitive decline in the additions to the existing population. Such evidence as is available shows that there has been no marked decline in the birth rate and that the country, particularly rural India, which shelters eighty per cent of the population, has not taken to family planning in a serious and purposeful manner.

The Planning Commission has been very conscious of India's population problem from the beginning—the First Five Year Plan. The First Plan allotted Rs 0.7 crore for family planning while the Second Plan increased the amount to Rs 3 crore. And the current Plan has proposed an outlay of Rs 25 crore. As the Draft Outline of the Third Five Year Plan points out, "The programme for family planning will be given a very high priority and the number of clinics will be increased from 1,800 to 8,200". It goes on to add, "The family planning programme has been referred to earlier as a key programme for the Third and Fourth Five Year Plans. At the same time it is a programme which has many complex features and its results can only come over a period." While it is true that it would take a decade or two to evaluate the overall effects of a family planning policy, all that we know today points out that some important aspects of family planning have not received the emphasis and importance they deserve.

To the present writer a well-designed and carefully implemented national population policy in favour of family planning must follow a certain logical pattern. The plan at the individual level and consequently on the national scale is bound to fail if one or two vital steps are missed.

*1. An intellectual awareness that a large family is incompatible with a desire for or an expectation of a higher level of consumption or a higher standard of living, other things remaining the same, is necessary.*

This awareness can be brought to the masses only through propaganda, education, through the platform

(speeches) and film and radio, for illiterates, and in addition to these, through the press (newspaper articles, pamphlets and books) for literates.

### *2. Awareness of the means of family limitation.*

The man or woman, and preferably both, must know that it is possible to control conception. They must know that means are available to space and limit children. This means again knowledge. Of course, there may be some who, despite propaganda, remain so entrenched in ignorance that they will continue to believe that God sends children and nothing can be done about them.

### *3. Acceptability of the known means.*

The available means range all the way from abstinence and moral restraint within marriage, the safe period (which is really unsafe), sheath, diaphragm and jelly, foam tablets and oral contraceptives to permanent methods of surgical sterilisation-like vasectomy and salpingectomy. The husband or wife must have a good knowledge of these methods and must find at least one method acceptable to both.

### *4. Availability of the means.*

There may be both knowledge and acceptability, but the means may not be available. A clinic, a physician, a prescription and the material—all these must be available. This means that a clinic must be within the reach of every community. The financial and other difficulties involved in organising a clinic in every village or even a group of villages become obvious. The clinic must be staffed by a knowledgeable and sympathetic physician. The clinic must be able to give free contraceptives.

### *5. The need for strong motivation to practice family planning.*

The husband or wife may travel as far as the fourth stage, receive the necessary advice and/or contraceptives, go home and forget all about it.

At this level a variety of barriers—material and psychological—crop up. The home may be crowded and the necessary privacy may be lacking. There may be no bathrooms, running water or light. The mother-in-law, if she knows about the matter, may be an obstacle. And family planning in actual practice implies a certain amount of rational planning in a couple's conjugal relations. It is at the time of coitus that motivation in favour of family planning must reign supreme but in actual practice it is the time when it is least strong.

### *6. And last is the effectiveness of the contraceptive used.*

(Continued on page 40)

# THE ART AND SCIENCE OF TARGETRY

JAGDISH BHAGWATI

*Are all targets  
equally  
important?  
What about  
rigidity?  
And why only  
a time-  
dimension?*

A GREAT deal of cynicism characterises the typical public reaction to the non-fulfilment of targets. This was captured in a brilliant cartoon by R.K. Laxman recently, where an instructor at a rifle range is sternly admonished by his superior for saying to an inept Jawan: "Where do you think you are: at the Planning Commission?" This cynicism, while partly inevitable, arises from confusion concerning certain aspects of targetry. In the brief essay here, I wish to discuss some sources of this confusion, while also taking the opportunity to pinpoint some of the important respects in which the practice of target-setting and implementation may be improved.

Targets can and do refer to several things. Investment and output in different sectors, aggregate income, personal disposable income, taxation, export level, imports of steel, indeed a large number of items can be the object of target-setting. But targets are to be distinguished from pure "estimates". This distinction is of some importance and can be illustrated in terms of the figures of investment and output in different sectors that every Plan document contains. These figures represent a generous mixture of both "targets" and "estimates". For instance, a good part of the private sector investment and output figures do *not* amount to anything but an estimate by the authorities of what may be expected in these areas (within the framework of certain general policies). Thus, some agricultural investment (e.g. bunding), small-scale industry and services outputs are typical examples of such estimates. These contrast with the rest of the private sector and all of the public sector investments and outputs which constitute targets in the strict sense. The expansion of steel capacity, for instance, by so many million tons is a definite target, which the government *aims* to achieve by explicit action.

A further point needs to be noted concerning these targets. Many of these targets are *not* firm in detail. Take, for instance, the example of private sector investment target in the Organised Industry sector. A careful reader of the Plans will find that not all of this target is broken down into firm targets of investments in individual industries: a fraction, varying from 15 to 25 per cent, is "free" and its composition is *ad hoc*, determined in this instance by the licensing committee of the Ministry of Commerce and Industry. The general impression of the economy being entirely or overwhelmingly subjected to targetry, in the only valid sense of the term, is therefore incorrect.

By the same token, therefore, it may be more correct to criticise the planners for making wrong "estimates" rather than for setting but not implementing targets; however, it would be worthwhile to bear in mind that the miscalculation of an estimate may itself lead to the non-fulfilment of a target. Thus, for instance, the overestimating of private agricultural investment could seriously affect the agricultural output, thereby affecting at least two important targets: increased availability of food grains and rise in the level of national income.

## What is Flexibility

THAT leads me to the next question: is there any way in which we can say that some targets are "more important" than others? Can we, for example, afford to ignore the non-fulfilment of some and not of others? Clearly, targets embodying national *objectives* are of crucial importance. Among these can be counted: national income, level of employment, consumption (and the distribution of income, if the 3-anna controversy and the belated awareness of the appalling poverty of the lowest decile of income-earning households is any guide). With these must also be reckoned the objectives of raising the level of savings, improving the export performance and ensuring a steady investment in the capital goods industries, all of which buttress the grand, forward-looking targets of an increased rate of investment and growth (and therewith employment creation and elimination of general poverty) in the stipulated 25-year perspective spanned by the entire planning process. It need hardly be emphasised that all other targets, such as detailed industrial targets of investment, are only subsidiary to and instrumental in the fulfilment of these objective-targets. This also means that it is of little significance whether the stipulated target of aluminium falls short by some tons but of steel exceeds by others. The shortfalls and leads are of negligible importance whether they occur within broad sectors like industry and services or between them, except in so far as they impinge upon the objective-targets. The analyst of the unfolding situation, therefore, has to examine whether this is so, before throwing up his hands at non-fulfilment of the *detailed* targets.

This analysis prompts two further observations of some interest. (1) Do we *need* to fulfil rigidly as many targets as we currently work with for there to be efficient planning?

*(Continued on page 28)*

# SAVE *for* NATION'S DEFENCE

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## On two administrative words—

A JOURNALIST suffers from a professional disability to which other writers are not subject. He has to search for facts, for information. Facts are elusive, hard to find. Collecting information is a risky, often unrewarding occupation. Of the meagre sources open, official reports are the least promising for the discovery of hard facts, clear information.

One view is that this is a problem in semantics. There is an "official-ese" just as there is a "journal-ese." "Journal-ese" may be called language in a hurry, meant to convey one dominant impression, with little respect for minor details or subtler nuances. Expressions like "summit talks", "hot line", "sex mystery", "one-man probe", are sometimes less than accurate and often inelegant.

But official-ese, I am inclined to believe, after some experience of it, is not meant to convey anything. It is meant sometimes to conceal facts and information. More often it is a form of negation; a way of saying nothing at length.

Here is an instance. In one of its reports the Standing Committee of the Central Advisory Board of Education felt called upon to define "Social Education". In my simplicity, I had imagined "Social Education" was merely a new name which some clever person had thought up for what used to be called "Adult Literacy."

In either case, illiterate persons are taught to read and write: semi-literates are helped to improve their reading and writing ability. There is probably some change in methods. The old-time adult literacy campaigns were really dull and drab affairs, sustained merely by faith and zeal. Social education is probably more colourful, definitely more costly.

That is what I thought; but apparently I was quite wrong. According to a P.T.I. message (August 7) the report of the Standing Committee said: "Social education is an ever expanding concept and every process that contributes to bringing about a

# COVER and IMPLEMENT

G. N. ACHARYA

social change and the impact of the changed circumstances of the modern life can be conceived as a factor in evolving the concept."

I wouldn't like to spoil that gem by analysis and explanation. It is better to leave the "ever expanding concept" to "evolve" by its own momentum.

There is more of such stuff in the report, but it is unfair to cite more examples. That would imply that this is something special to this report. One can get presentable samples anywhere. I picked up one report, rather an old one, from a shelf where a few odd ones were lying. This was Volume III, part II of the "Report on the Team for the Study of Community Projects and National Extension Service," issued in December 1957.

The first page I turned to (page 28) yielded this bit: "In 1888, some 2,000 acres of ravines close to the town of Etawah were planted. This is known as 'Fisher's Forest'. Thirty-one gully plugging embankments were constructed and the area was closed to grazing. The plantation programme has been recently revitalised by the Forest Department. The whole experiment has very successfully shown how the growing ravine formation can be effectively checked.

However, there is no radiating influence of the programme as the land is taken over by Government out of the hands of the cultivators and the cultivators, in spite of the deep and ever increasing ravines, have not been encouraged to adapt similar measures. The experiment continues to be a monumental programme in limited sphere."

Rather interesting—this business of ravines not being encouraged in an experimental programme that has recently been revitalised, but has already become monumental. The report is a rich quarry; but I resist the temptation to exhibit more finds from a single source. I am all for variety. Besides, I must mention the two expressions—"Cover" and "Implement"—most beloved of later-day draftsmen of official reports, press notes, speeches and communique.

"Cover", if I may resort to official-ese, is a "multi-purpose" expression. It is used by veterinarians in relation to stud bulls. It is used by insurance agents in regard to risks. It is used by journalists in respect of events or incidents. The way it is used in official parlance is illustrated by a report of the proceedings of the West Bengal Legislative Council which I take from *The Statesman* (Calcutta edition—August 10, page 7).

"The Health Minister, Dr P.K. Guha, answering questions by Mr Manoranjan Sen Gupta said that the Government proposed to extend the Employees State Insurance Scheme by 1966 to all commercial and cinema establishments, employing 10 persons or more... The areas to be covered are Calcutta, Howrah, Hooghly, 24-Parganas and the Asansol sub-division of the Burdwan district.

He also said that the Government was considering a plan to cover teachers and others, who would be left out of the schemes envisaged so far."

What does this "cover" mean? What does the Government mean when it says that the Community Development has "covered" 80 per cent of the population? Does it mean that 80 per cent of the farmers have land to till, that they have a pair of bullocks which they need to yoke to each plough? Does it mean there is a co-operative society in 80 per cent of the villages, or that 80

per cent of the population have taken shares in co-operative societies?

On page one of the report of the Ministry of Community Development one of the objects of the C.D. programme is described as "...a minimum programme of area development of multipurpose character throughout the country". Nothing could be less concrete, more elusive than "area development". One is not even sure if the reference is to the land or the people. And what is "development of a multi-purpose character?" I should have thought that "development" was itself the "purpose", in fact the sole purpose, of the C.D. Ministry.

I suspect considerable confusion in the official mind about what is purpose. For instance, the Planning Commission's Plan Evaluation Report for 1961-62 has this to say: "Four villages were purposively selected from the project area in consultation with the Agriculture and Irrigation Departments for purposes of field investigation" (Page 101). Here is not only a purpose, but a purposive selection for a purpose.

I have to hurry on to deal with "implementation". Does a statement that a plan is implemented mean that the sanctioned money has been spent, and no more? But this quotation from the "Report on India's Food Crisis and Steps to Meet It"—otherwise known as the Ford Foundation Report—throws everything into doubt. Here it is:

"As the Centre implements its plan for inspection of all soil and water conservation work for which grants and loans are furnished, the extent and effectiveness of co-ordination among State departments of Agriculture, Forestry, Irrigation, Public Works, Revenue and the like should be a major consideration in the approval of schemes for soil and water conservation put forward for sanction." (page 169)

Does this put not only "Implementation" but "Co-ordination" before sanction? I am not sure. When reading such reports one is sure of nothing. This, it seems to me, is not merely a problem in semantics. In the absence of hard facts, simple information which they could "cover", the draftsmen seem to be "implementing" the purpose for which they are appointed and paid, with considerable linguistic agility.

## QUOTATION BOX

If Ministers work hard, officials will have to follow suit.

—Mr Krishna Ballabh Sahay,  
new Chief Minister of Bihar.

Public relations advisers are as important an adjunct of the White House in Washington as astrologers are to many of our Ministers and politicians here.

—"Darem" in *"The Sunday Standard"*

Although one knows all about the tyranny of files and the ravages of red tape, one cannot help remembering that Government by record was among the best contributions of British rule in India...Files are Himalaya-high even today; it is the concept of Government by record that is at a discount. The destroyer of honesty has been the telephone... On the telephone a Minister can issue instructions he would not dare to record...

—From an article in  
*"The Economic Weekly"*

Impressed by the rapid growth of political legs in the capital, a senior railway technocrat with an eye for the pragmatic has advocated "constructive" permanent political demonstrations. He feels that instead of wasting millions of man-hours in the often fruitless marches from Chandni Chowk to Vijay Chowk, political parties could invest the time in getting their followers to construct a few furlongs of road to be named after their favourite slogans. Some of the names he suggests are "Anti-CDS Communist Path", "Mr Asoka Mehta Treat-

ment for the PSP Road", or "Angrezi Hatao Socialist Marg" etc. The only help the Government might have to give is a loan of spades.

—A report in *"The Statesman"*

Solving the population problem depends on education and somewhat better living conditions. It is no good just getting a pill and making everybody swallow it.

—Mr Nehru

Lord Denning declared there had been no lowering of standards in public life. The difference was that public men had now become more vulnerable than they were. Scandalous information about well-known people had become a marketable commodity.

—*Agence France Press report on the Denning inquiry.*

No matter what policies are evolved by the Government or the Planning Commission, the country will not progress unless a spirit of co-operation was inculcated among the rural masses.

—Mr Jayaprakash Narayan

The founder of the Dravida Kazhagam, Mr. E. V. Ramaswami Naicker, was weighed against onions at Lalgudi yesterday. Onion is a favourite vegetable of Mr. Ramaswami Naicker and he mentions onions frequently in his speeches. In a brief speech, Mr. Ramaswami Naicker emphasised the need to carry out propaganda to achieve a casteless society.

—A report in *"The Hindu"*

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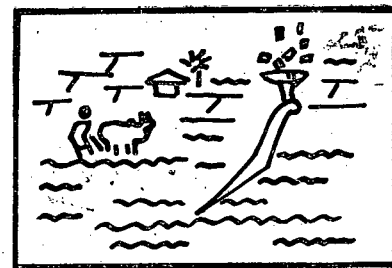




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## Section Two : Agriculture &amp; Rural Development

EFFECTIVE IMPLEMENTATION OF  
Agricultural Programmes

SHRIMAN NARAYAN

**A**GRICULTURAL production has been given the highest priority in the Third Five Year Plan. This is essential not only for achieving self-sufficiency in food-grains but also for ensuring the supply of essential raw materials to several important industries like cotton textiles, jute, sugar and oil. Our traditional exports of agricultural commodities still constitute a major portion of our foreign exchange earnings and every nerve has to be strained for stepping up the production of food and commercial crops both for internal requirements as well as for improving our balance of payments position.

In fact, our programmes of agricultural production are closely interrelated to industrial development and, as Dr Kuznets points out, "a marked rise in productivity per worker in agriculture is a pre-condition of the industrial revolution for any sizable region in the world"<sup>1</sup>. Dr W.W. Rostow, Counsellor and Chairman, United States Policy Planning Council, also significantly observes that "radical improvement of agriculture in Asia, Africa and Latin America is a fundamental condition for the maintenance of a high rate of development in those regions, specially their industrial development"<sup>2</sup>.

*Special Study by Central Teams*

**DURING THE LAST** few months, special efforts have been made to make the implementation of various agricultural programmes in the States much more effective and streamlined. Central Agricultural Teams, consisting of representatives of the Ministries of Food and Agriculture, Community Development and Co-operation, and the Planning Commission, visited all the States to gain first-hand knowledge regarding practical problems and difficulties with which the farmers were faced in different areas. These Central Teams spent two days in touring different C.D. Blocks in a district with a view to finding out how different agricultural schemes were actually functioning on the ground. Later, they spent three days in detailed discussions with the State Governments in order to take specific decisions for pulling agriculture "out of the ruts". The Teams were headed by the Ministers concerned and several Members of the Planning Commission. The visits of these Teams have, indeed, proved to be very helpful in focusing the attention of the State Governments on administrative and organisational shortcomings, and, if the States so desire, such

joint visits could become an annual feature for giving a concerted 'push' to agricultural development.

One of the positive results of the visits of these Central Teams this year was the setting up of special Agricultural Production Sub-Committees of the State Cabinets under the chairmanship of the Chief Ministers. All the concerned Ministers, including the Finance Minister, would now meet periodically to co-ordinate the activities of the departments of Agriculture, Animal Husbandry, Irrigation, Community Development and Co-operation. Another co-ordination committee would function at the official level under the chairmanship of the Chief Secretary. It has also been agreed that the decisions taken by the Cabinet Sub-Committee on agricultural production would be regarded as the decisions of the whole Cabinet and there would be no need to refer these matters to the concerned departments again. This step would be very helpful in streamlining the administrative machinery in the States in the sphere of agricultural production.

*Greater Outlays & Supplies*

**AS A RESULT** of the recommendations of these Central Teams it has also been decided to increase the financial outlays for minor irrigation, soil conservation and plant protection measures during the remaining period of the Third Plan. An additional amount of Rs 85 crore would be provided for agricultural programmes in different States out of which about Rs 16 crore are being allotted during the current year. It may be noted that during the first three years of the Third Plan, the State Governments have spent only 49.5 per cent of the total outlay on agriculture, as against 52 per cent of the expenditure for the Plan as a whole. The States have also been informed that, in future, they should not divert any funds from agricultural programmes to other sectors. If they do so, the Central assistance would be reduced proportionately.

In regard to the availability of foreign exchange for certain key materials such as fertilisers, pesticides and plant protection equipment, equipment for dairying and fisheries and boring and drilling machines for minor irrigation, it was found that several important agricultural programmes had suffered considerably. This matter was recently considered at a joint meeting of the Planning Commission and the Ministries of Food and Agriculture and Finance and it was agreed that the requirements of foreign exchange for fertilisers, small tractors,

<sup>1</sup>Lectures on Economic Growth by Prof. Simon Kuznets.

<sup>2</sup>Source : "Foreign Agriculture"

power tillers, pesticides, power sprayers and dusters, equipment for boring and drilling, dairying and fisheries should be met adequately during the remaining period of the Third Plan. It is envisaged that during the last two years of the Third Plan, Rs 35 crore and Rs 40 crore would be made available for the import of fertilisers as against the present level of about Rs 25 crore annually. Of course, programmes for the fullest utilisation of local organic manures, which do not involve any foreign exchange, will have to be organised with a keen sense of urgency.

The Central Teams drew pointed attention to the non-availability of cement and iron sheets for agricultural programmes, more specially minor irrigation. This matter was discussed with the Ministries of Food and Agriculture and Steel and Heavy Industries and it has now been decided that requirements of agricultural production for cement and steel would be given the highest priority next only to Defence. The States have been asked to earmark specific percentages of cement for agricultural purposes out of the total quotas allotted to them so that the execution of the minor irrigation schemes and the construction of rural godowns may not suffer in any way.

### *Credit and Personnel*

THE PROBLEM OF supplying adequate short-term and medium-term credit to the farmers through the co-operative and governmental agencies was also studied by the Central Teams. It has now been suggested to the States that the agricultural and co-operative programmes should be integrated through village and block production plans and adequate loans should be given for meeting all the requirements of fertilisers, seeds, improved implements and pesticides. As far as possible, loans in respect of agricultural supplies should be advanced in kind in order to avoid any misuse of funds for non-agricultural purposes. It must be conceded, however, that special efforts will have to be made for augmenting the short-term and medium-term co-operative loans during the remaining period of the Third Plan in order to reach the target of Rs 530 crore.

As against this target, it is estimated that the total amount of loans distributed by co-operative societies during 1962-63 would be of the order of only Rs 280 crore. During 1963-64, this figure is expected to reach the level of Rs 300 crore. Thus, there is still a big gap which will have to be filled up during the remaining two years. The Planning Commission proposes to convene a special meeting for this purpose in order to explore all possible methods for increasing the flow of institutional funds to programmes of agricultural development.

During the visits of the Teams it was noticed that at the State, district and block levels there was an urgent need for dovetailing the activities of the agricultural, Community Development and Panchayati Raj agencies. The National Development Council has already decided that 100 per cent of the time and energy of the Gram Sevaks should now be concentrated on agricultural and allied programmes like animal husbandry and co-operation. But this could be possible only if administration at various levels is effectively geared to these tasks through the preparation of detailed job charts for differ-



CONTOUR BUNDING, an important measure of soil conservation, helps to increase the yield.

ent functionaries. The recent joint conference of agricultural and Community Development Ministers has set up a Working Group to sort out the details of a streamlined and integrated administration and it is expected that recommendations of this Group would go a long way in bringing about a unified administrative machinery for assisting millions of our farmers efficiently and *in time*.

Steps are also being taken to enlist the co-operation of a large number of progressive farmers in various programmes of agricultural development. It is significant that while the yields per acre in India for some of the major crops are the lowest in the world, the rate of productivity achieved by progressive farmers in our country is also among the highest. It is, therefore, essential that the experience of these better farmers in different States is availed of by the Governments. It has been decided to establish advisory committees of good farmers at the State and district levels for involving these experienced peasants more actively and directly into development schemes.

### *Price Policy*

IT IS ESSENTIAL that the farmer must get a minimum remunerative price for his produce. The Government of India and the Planning Commission have already announced minimum purchase prices for wheat, sugarcane, jute, cotton and jowar. Further steps will have to be taken to make a realistic and scientific assessment of the actual costs of production for the major crops in different regions. Buffer stock operations for all these commodities will have to be made a permanent feature of our farm policy in order to ensure fair prices both for the producers as well as the consumers.

THE PLANNING COMMISSION, in consultation with the agencies concerned, is also trying to evolve a suitable system of collecting statistics for agricultural production at the block level from year to year. At present, such statistics are available only at the district level, and it is, therefore, difficult to fix any specific responsibility on the block staff for achieving farm targets. Pilot projects for the collection of block level agricultural statistics have already been started in one district in each State and it is expected that one more district in different States will be selected soon for extending this experiment. Once it is possible to check up statistics of actual production of major crops from year to year in each block, the C.D. authorities will be in a position to take effective action against those officers who fail to discharge their responsibilities adequately.

If the nation is really serious about augmenting agricultural and industrial production, our educational system at the primary, secondary and university levels will have to undergo a radical change. It must become farm-and-craft-oriented in the rural areas and small-industry-oriented in the cities. Mahatma Gandhi had placed before us a Basic system of education about twenty-five years ago. That system has not been able to make much headway because we perhaps never gave it a fair trial. Be that as it may, it is now imperative to make our schools and colleges more purposeful and creative by enabling the students to participate in productive activities in a scientific and organised manner so that they could learn through doing and also earn while learning. At the instance of the Planning Commission, the Central Advisory Board of Education has appointed a special Committee to formulate a concrete scheme in this regard and it is hoped that the recommendations of the Committee would pave the way for a much more fruitful system of educational instruction and training in India.

Above all, it is the *human* factor which must always be kept in view. We may arrange for all the material supplies of water, seeds, fertilisers and implements to the farmer through a chain of efficient co-operatives and Panchayats. But we cannot make him feel the glow of enthusiasm unless the land that he tills really belongs to him and there is no sense of uncertainty in his mind. We must concede that the progress of land reforms in the States has not been satisfactory so far. Special attention must be devoted to this aspect of rural life without any further loss of time.

### *Higher Productivity Essential*

IT IS EVIDENT that Indian agriculture would continue to depend in a substantial measure on the vagaries of the monsoon from year to year. Recent studies have indicated that at no time in future would it be possible for us to irrigate more than 50 per cent of the culturable land in India. Nevertheless, every human effort has to be made on an emergency basis to enable our farmers to raise their level of production by overcoming the uncertainties of nature to the maximum extent. Despite best efforts, it may not be possible to show steady increases in agricultural productivity year after year owing to climatic conditions beyond our control. It should, however, be our earnest endeavour to show a rising curve over the Plan periods of five years each.

While we cannot afford to be complacent in regard to the achievement of agricultural targets set out in the

Third Plan, there must be no undue pessimism or slackening of efforts in despair. It is no use trying to shirk our responsibilities and pass them on to others. This is not the time for mutual recrimination; the Central Ministries concerned, the Planning Commission and the State Governments must make a concerted drive to assist millions of our farmers to increase their yields per acre. I am convinced that the level of agricultural production in India cannot be raised by miracles or magical formulas. The real remedy lies in a more effective execution of all the programmes which have already been included in the Third Plan. Agriculture is a hard taskmaster; it would require every ounce of our energy to pursue various schemes at the Central, State, district, block and village levels in a planned and co-ordinated fashion from day to day, week to week and month to month. There can be no resting on our oars till the basic objectives are achieved in a satisfactory manner.

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*Apparent helplessness to correct what is known to be wrong*

## PROGRESS THAT ELUDES AGRICULTURE

M. L. DANTWALA

THE Third Five Year Plan has by now traversed half of its time-span and it is appropriate to pause and see whether it has covered half the distance towards its achievement targets. A quick retrospect immediately reveals that the sector in which the performance has been most disheartening is agriculture. Foodgrains production is receding downwards during the first two years of the Third Five Year Plan, with the consequence that the wholesale price index of food articles has registered a sharp increase, from 120 in 1960-61 to 137.5 in August 1963. Nor is there any significant increase in the production of several other agricultural commodities like cotton and oilseeds.

In our country, since agricultural production depends so heavily on the weather, it is not unusual to have a series of bad harvests consecutively. It is, therefore, quite likely that production during the last two years was severely affected by adverse weather. In view of this, it is the usual practice to measure the progress in agricultural production by a reference to what is called the additional "production potential" rather than the actually realised. The production potential is measured on the basis of physical achievements in regard to different programmes of agricultural improvement like irrigation, fertilisers, seeds, etc. and a yardstick formula for conversion into production figures. Though the method adopted for the purpose is far from satisfactory, we shall, in this article, ignore this aspect and try to see whether the progress as judged by the production potential generated is satisfactory.

### *Story of Shortfalls*

IT WILL BE remembered that the Third Five Year Plan had envisaged a target of additional foodgrains production potential of 23.7 million tons. As against this, from such information as is available, the production potential generated during the first two years of the Plan would be of the order of 5-6 million tons. If the higher of the two figures is used, for deriving a yearly average, the additional potential at the end of the Third Five Year Plan will be only 15 million tons—almost 33 per cent below the target. We can, of course, hope that in the remaining period of the Plan, progress will be accelerated.

As already mentioned, the aggregates given above represent the total of the contribution of different items in the programme of increasing agricultural production. We may, therefore, try to look into the progress in some of the key items like extension of irrigation, increased use of fertilisers and improved seeds. It should be

noted that the basis on which the appraisal is made is again far from satisfactory. Though there is considerable scope for improvement in the method and the machinery for the collection and compilation of the basic data necessary for the purpose, it should be conceded that in the nature of things, some of the information is extremely difficult to obtain and more so, to obtain it with a reasonable assurance about its accuracy.

The Third Five Year Plan document had envisaged a target of covering 12.8 million acres with minor irrigation. This was subsequently raised by 50 per cent—19.2 million acres. According to some current estimates, during the first two years of the Plan, the area benefited by minor irrigation is likely to be about 4 million acres, i.e. 30 per cent of the original Plan target and a little more than 20 per cent of the revised one. Financial allocation to minor irrigation has been stepped up, but even so, it would be unrealistic to hope that the revised target under minor irrigation will be reached by the end of the Third Five Year Plan.

The shortfall in the anticipated domestic production of nitrogenous fertilisers has already attracted much attention. It is now estimated that the supply from domestic production and imports in 1964-65 (fourth year of the Plan) will be 2.75 million tons as against the anticipated 5 million. The supply anticipated in the last year of the Plan was 10 million tons, 8 million from domestic production and 2 million tons from imports. Even if imports are stepped up, the total availability is not likely to be more than 6-7 million tons, resulting in 30-40 per cent shortfall. Obstacles in putting up a fertiliser plant in the private or the public sector are by now well-known and much is written on it. The difficulty of securing foreign collaboration, particularly in view of the control of sale prices of fertilisers and prospects of poor return on investment, is probably the major obstacle. But no such insuperable obstacles can be cited for the equally disappointing progress in the production and utilisation of rural composts or green manure. Over the first two years of the Third Plan, additional production of rural composts is estimated at 20 million tons which gives an average of 10 million tons per year as against the Plan anticipation of 30 million tons. As for green manuring, the area under green manure was perhaps no more than 16-17 million acres in 1962-63 as against the target of 22.7 million acres.

The performance in regard to coverage under improved seeds is no better. Precise estimates are not available, but in the first two years of the Plan, the additional acreage covered is probably not more than one-fifth

of the Third Five Year Plan target of 180 million acres. The shortfall is thus of the magnitude of 50 per cent. The same story of shortfall in achievement can be told about other programmes formulated in the Plan for achieving the desired increase in agricultural production.

### *Causes and Cures Known*

IT IS NOT difficult to list the factors responsible for this unsatisfactory progress in the agricultural sector. In fact, by now, the Planning Commission has acquired the requisite expertise in such listing. Being conversant with the practice of self-criticism, it has faithfully included in the list every conceivable factor that could possibly have had an adverse effect on the progress of the Plan. But, strange though it may seem, the very pervasiveness of the list robs it of its analytical and, more importantly, operational value. The multiplicity of the listed factors blurs the priority perspective and operational direction. A proof of this is provided by the fact that year after year the same list is courageously put forth—low priority, administrative and organisational bottlenecks, diffused and divided responsibility, clogged lines of communication, rivalries pertaining to the jurisdiction between different agencies, the ubiquitous lack of co-ordination and if anyone has any more to suggest, the Planning Commission, I am sure, would be glad to incorporate them in the lengthening list. There is now no point in saying that the major problem in planning is that of effective implementation, because this is now universally accepted. Further, we all, and more than any one else,

the Planning Commission, know what is wrong with implementation and even know the remedies—allocation of *top* priority, larger financial allocations, more liberal foreign exchange, decentralisation, co-ordination and the rest of it. The problem is that the Planning Commission and the Government have, it would appear, been completely helpless in correcting what they know to be the wrong. The Ministers concerned, it must be conceded, however, have not yet run out of fresh ideas. In fact, they have one for each new season. The Community Development Project has matured into the Panchayat Raj and the National Extension Service into the Intensive Area Development Project. The BDO and the VLW will now have the Village Volunteer Force and the Labour Bank to contend with.

Coming back to the point, what is wrong with our agriculture? Some years back, one had a few answers, but now that the Planning Commission has known all of them, one cannot invent new ones every time *Yojana* or any other knowledge-thirsty journals want to bring out a Special Supplement. There is a limit—the author is beginning to discover—to the verbal ingenuity of even a prolix professor. Time is not far when the only people who would be able to talk and write on planning would be politicians. One is, however, not sure when the time to do i.e. *give* top priority to selected programmes (not to different ones on different pages of Plan document), *remove* administrative and organisational bottlenecks, *establish* clear lines of command, *bring about* co-ordination between competing agencies for rural development, etc. etc.—is likely to arrive!

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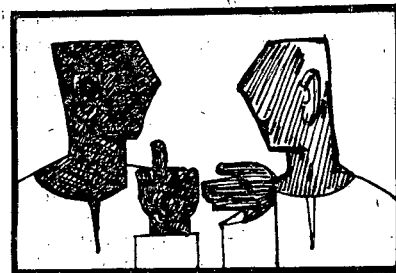
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*The movement must address itself to the poorest and the lowliest in the villages*

G. P. JAIN



## Future of Community Development

THE finest hour of Community Development in India was when the 52 development projects launched in October 1952 won universal acceptance in the areas they served and created the demand in other parts of the country for a similar programme. For the first time, Government servants were seen going to the villages as servants and this made a tremendous impression on the village people.

The following year, the programme was multiplied in the shape of National Extension Service with great expectations. But in the course of the nationwide extension and recruitment of a very large number of functionaries the personal contact of the district and State-level bureaucracy with the village-level personnel diminished and the latter gradually began to be looked upon as mere cogs. Emphasis came to be laid more on statistical reports than real work. The village level worker, the so-called 'kingpin' of the programme, was burdened with a donkey's load of registers and forms to fill.

The trouble was sighted when the people grew cold to the programme and the development personnel. Following this, the Government set up a committee of some wise men under the chairmanship of Mr Balwantray Mehta. The committee met and deliberated and decided on decentralisation as the key to the people's minds and hearts. Let the people themselves plan their programmes and carry it out, the officials being there only to help the people help themselves.

### *Panchayati Raj & Problems*

Thus began the third crucial stage of Community Development. Panchayati Raj, as it was called, was expected to bring "Ramraj" to the villages and strengthen democracy at the base. But disillusionment soon began. The Panchayats showed themselves up as hotbeds of factionalism, where no work of real worth to the community was possible. Everything the Panchayat did or planned was riddled with considerations of factionalism or private gain. There were a few bright exceptions, but on the whole Panchayati Raj was taken as dead by the officials as well as the people even before it had had a reasonable innings.

In this state the Community Development movement found itself standing at crossroads, not knowing which way to turn. Even the crossroads were hidden in a thick

forest of intertwining roads. Mr S.K. Dey, the Minister for Community Development, knew this predicament when he rose to invite the Prime Minister to speak to the Development Commissioners gathered for their eleventh annual meet in New Delhi. He asked Mr Nehru to give the programme a new push-off or a new mandate. Mr Dey, on his part, sorrowfully promised not to prescribe any more slogan or plan until all the previous slogans and plans had been faithfully carried out.

The Prime Minister, who appeared to be caught unawares, reiterated the need for all-out efforts for increased agricultural production. But after a pause he said warmly that more than anything else the community development movement should aim at the shaping of men and women in the villages. The uncertainty about the priorities implied in the Prime Minister's remark plagues the Community Development movement as it now enters the fourth stage. Its dilemma is: If it turns its entire attention to agricultural production it will be swallowed up by the Food and Agriculture Ministry. If it endeavours largely at improving the quality of men and women, the needs of today will remain unsatisfied and the programme will invite upon itself the wrath of the critics.

### *Gram Sabha Must Have Powers*

For what reasons does the programme find itself in such an unenviable state? The foremost reason is that it has failed to carry the people with it and has thus become weak. The people failed to respond to it, firstly because the village bodies under Panchayati Raj had neither adequate powers nor resources to do good to the people. The Panchayati Raj institutions, clothed with full authority and given the resources to carry out their programmes, would surely secure the loyalty of the people. But where the powers were given, the decentralisation process stopped short at the Panchayat, which drew its strength from factionalism. The Gram Sabha, made up of all the village adults, was not brought into the picture. Even where it was statutorily recognised, it was left ineffective. If efforts had been made to activate the Gram Sabha and bind the Panchayat to be answerable to the Gram Sabha, the poorest would have shone with a new glow on their faces.

Besides mass education, which has been neglected but which can undoubtedly prepare the people for their

new responsibilities, an economic programme aimed at the marginal and sub-marginal families is absolutely necessary. Firstly, those who desire to stay in agriculture should be encouraged to form homogeneous farming societies and pool their resources and make the best use of them through joint cultivation. This will lighten their load, give them more time for learning new things and will bring them higher farm profits. Secondly, a vigorous industries programme should be pursued for creating large employment opportunities and making possible a shift of the population from agriculture to industrial occupations.

To sum up, activation of the Gram Sabha backed with adequate powers and resources, education of the masses and a programme for co-operative farming and rural industrial projects are the three urgent needs of the hour. But does the Community Development movement have the strength to grapple with such basic matters?

Until the people support the programme, not the few who have benefited by it but the many who have still to benefit by it, the programme will live a meaningless existence and invite a 'coup' against itself sooner than expected.

The failure of Community Development is writ large on every village one may visit. There is no caste integration anywhere. "Equality with separation" is the guiding code. No community spirit is evident. The rich have helped themselves to Government aid—a strange example of self-help! The poor remain as they were. They have neither more land nor gainful occupation. The people still swear by the centuries-old dogmas and taboos. What has Community Development done to carry them on the road to a better and fuller life?

The success of the C.D. programme is not in the size of the army of paid officials and plumed non-officials but in how this army behaves. The crisis seems to be not so much of resources as of dedication in the officials as well as non-officials who can transform the villages. But where are such men?

The planners of Community Development have been groping for a way out. The 'Gram Sahayak' programme has fizzled out. The Village Volunteer Force promises no better results. The search will continue vainly until the programme is orientated to activating the poorest and the lowliest in the villages. To plan and execute such a programme, political courage is required.

## THE VILLAGE AS THE UNIT

*Only way to achieve increased agricultural output*

M. S. GURUPADASWAMY, M.P.

ANY programme of industrialisation and urbanisation requires a greater total food availability. Most of this increment must usually come from domestic output: That means that a radical programme for agriculture is necessary for an over-all economic development. The communist countries tried to revolutionise agriculture by the establishment of collective farms and conscription of rural labour. The Chinese likewise followed the same methods of extortion and coercion to bring about agricultural transformation. Many invocations and improvements were made a part of the programme of agricultural operations. But in spite of these organisational and technological changes, the results in these countries have been far from satisfactory. Perhaps the growth would have been more rapid if the State had placed less heavy a hand on agriculture.

In non-communist countries the attitude of Governments to agricultural innovation and community development is in sharp contrast. Their educated white collar officials tend to know little of village life and seem to care less. Some of these men are only a generation or so removed from village life itself. In our country agriculture is still regarded as an unprofitable and undesirable career, with little prestige value, small chance of promotion and few of the other rewards that go to attract young men into public service. This is partly due to the comparatively junior position which agriculture occupies. Even when very large funds are being allocated to agricultural schemes, the emphasis is still largely on industry. If it is our desire to achieve and accelerate the balanced

growth of our economy, the agricultural revolution must be as drastic as the industrial revolution. To achieve this goal, steps have to be taken to remove organisational and other inadequacies.

This is very much dependent on policy decisions, such as whether our agriculturists can significantly improve their operations within the present rural context, and must small holdings be continued. Do present landlord tenant relations need to be revised or abolished? Can agriculture be advanced without drastic alterations in the structure and organisation of hundreds of thousands of villages? Can anything be done within the existing rural framework?

It is supposed that absentee landlordship is one of the major reasons for the agricultural poverty. It is assumed that by the simple alteration in land ownership and tenure the output will be increased. It is generally held that steady occupancy and eventual ownership would provide cultivators strong incentive to increase their efforts. This is true only when farmers can produce and earn enough above their immediate consumption needs. And because of population pressure on land, fragmented holdings, lack of capital etc. the tenants are hardly in a position to produce surplus. In other words social change alone will not be adequate, though it is necessary, unless there is a significant change in the methods of production. Even if the entire landlord class were abolished, when the methods of farming remained the same, agricultural sector would still pose a problem.

If agriculture is to contribute to economic development both individual productivity and the productivity of land should increase. Means must be evolved to introduce aggressive entrepreneurship. Agriculture should move from 'subsistence' to 'modernisation'. This involves drastic changes in village life. Further the village and not the family should be the economic unit for agricultural operations. Units of cultivation at present are very small. Land reform does not normally result in increased output. However intelligently it is carried out, it will not provide full and adequate answer to agricultural development. Unless it is accompanied by consolidation of holdings, specialisation of output and capitalisation, which are very much in vogue in plantation areas, stagnation in agricultural sector is unavoidable.

Secondly, organisational inadequacies afflicting agriculture have to be removed. At present Panchayats are in particularly bad state. Block development units suffer from lack of adequate and competent personnel and expertise and far too many vague tasks which provide more scope for excuses for inaction rather than stimulation for work. Co-operatives are not functioning as dynamic levers of change as they are too much saddled by non-co-operative self-seeking interests. If people are really to be involved in over-all community development, faith and respect for these institutions have to be instilled in their mind by drastic elimination of laws and inadequacies.

Thirdly, rationalisation and modernisation of farming cannot be achieved unless the question of moving the unemployed rural labour into industry is not solved. Population pressure inhibits agricultural specialisation and investment. Where too many people are dependent for their livelihood upon not enough land, little remains for the market. There is no incentive for specialisation as it involves investment. If specialisation is undertaken the surplus which it produces will have to be marketed. This will involve people in transporting and trading operations which indirectly bring about the monetisation of rural sector.

Economics of innovation in agriculture and its rapid development can be made feasible if all the political and social organisations are put into service. India suffers from paucity of organisational potential. Not very adequate attempts have been made in the past to press into service even the available political and social institutions. Besides, Army personnel may also be drafted to carry on the work of agricultural settlements. This requires a different economic and social reorientation of the Army. A soldier can be easily made a pioneer in agricultural exploration. At present our Army is not useful otherwise except for defence. From the economic point of view expenditure on defence is a wasteful expenditure. But if it is used to perform economic duties it can really play a vital role in the development of the country besides fulfilling the task of defence. Then the expenditure on the Army will not be a drain on our economy. And this orientation in the functioning of the Army personnel will make them really the servants of the soil.

The Fertiliser Corporation earned a net profit of Rs. 1.38 crore in 1962-63 as against only 14 lakh in the previous year. The surplus income will be spent on the Corporation's new projects at Trombay (Maharashtra), Namrup (Assam), Gokharpur (U.P.) and Koiba (M.P.) which are in different stages of construction. Both the Sindri and Nagal factories have increased their output.

# TARGETRY

(Continued from page 17)

Detailed targets require balancing of inputs and outputs which demand expertise, information and simultaneous solution which are nearly impossible to obtain. The targets are inevitably "shallow" when formulated. Surely they need revision as information trickles in, as experience reveals "optimism" or miscalculation and underlines the foolishness of assuming perfect foresight. Targets, therefore, must inevitably adjust themselves and cannot always be implemented nor require to be. This "flexibility" in the face of imperfect foresight is the *essence* of good planning and it is wrong to judge non-fulfilment of pre-set targets as necessarily a failure.

(2) This, however, raises the further question as to whether the government *has an appropriate machinery for dealing with this element of uncertainty.*

For instance, if aid inflow in the Plan period turns out to be lower than estimated, does the Planning Commission have an *alternative* (reduced) programme to which it can switch? Or, say, agricultural output rises by less than the target; would the Planning Commission know how best to adjust to this? The Third Plan document indicates an ambivalence towards this type of preparedness. The detailed targets were apparently worked out for a higher agricultural output target (and a 6 per cent rate of growth on the average). However, a more pessimistic outlook on agriculture (and hence a 5 per cent growth rate) appears to have led the planners to present a *single* "5 to 6 per cent" Plan, instead of resorting to a clear formulation of what would be done under different alternatives. This is clearly an area where improved planning is required.

## Space Dimension Needed

I WOULD like to end by making a brief reference to another respect in which the Planning Commission can extend its target exercises. In the last few years, two valuable lessons have been learnt (though not always effectively implemented): the value of a *perspective* plan and the importance of a *phased* Five Year Plan are no longer in dispute. While this time dimension to target-setting and implementation has been understood, the *space dimension* has been missing so far. Let me illustrate this again with industrial targets. Almost always, the targets exist on a "national" level. The regional distribution of investment and output targets do not exist. Leaving the allocation of individual targets to different entrepreneurs and/or regions by licensing throughout the Plan period to the executive Ministry of Commerce and Industry leads to a series of sequential decisions where each State competes for allocation, resulting in the break-up of most targets between States with inevitably small, uneconomic plants and little regard for overall economy. Cannot the Planning Commission begin to address itself to the space aspect of targetry so that such irrationality is avoided?

The Hindustan Aircraft, Bangalore, has delivered the hundredth Orpheus engine for Gnat fighter planes for the Indian Air Force.



## Officials' Approach Needs Reorientation

# Administering Rural Change

J. P. BHATTACHARJEE

IN no other segment of our economy is 'social change' as integral a part of the process of development and, what is more, as essential a method of achieving it as in agriculture and other rural activities. In this extensive sector, social change, by which we shall imply changes in attitude, norm, motivation, behaviour and organisation whether of individuals or of groups, can hardly be looked at as the by-product of economic and technical programmes, or even their 'end product' turned out through a complex process, sometimes described for convenience as the dynamics of economic development. On the contrary, it is part of the intermediate process working out through different inter-actions of social variables with those of economic activities and technical programmes. Implementation of a plan for rural development can, therefore, be said to imply, tacitly or implicitly, some measure of responsibility for inducing and/or bringing about social change.

The objectives and approach of our Plans have, indeed, been based on a recognition of this interrelationship. The choice of strategies also shows this recognition, as will be apparent from an enumeration of the main items of the strategy adopted for the development of the rural community and the rural sector. First, the Government has assumed a large measure of responsibility for revitalising the existing social and economic institutions and organising or promoting new ones that are expected to subserve the social interests. The institutions covered in this way are, to mention a few, Panchayats, co-operatives, schools, associate organisations, etc. The methods adopted range from legislation to promotion, support and assistance. Secondly, institutional arrangements and systems determining land tenure, tenancy and the cultivation of land have been brought under a reform programme, the more important aspects of which are yet to be implemented. Thirdly, a country-wide organisation for community development and national extension has been built up in rural areas.

This has also meant an expansion of the Government's administrative machinery in coverage as well as depth. The points of contact of the people with the administration has increased at different levels. Fourthly, decentralisation of administration through Panchayati Raj has been instituted to involve people politically in the process of local development. Finally, emphasis has been placed on encouraging people's co-operation and promoting the growth of leadership as well as individual and group initiative.

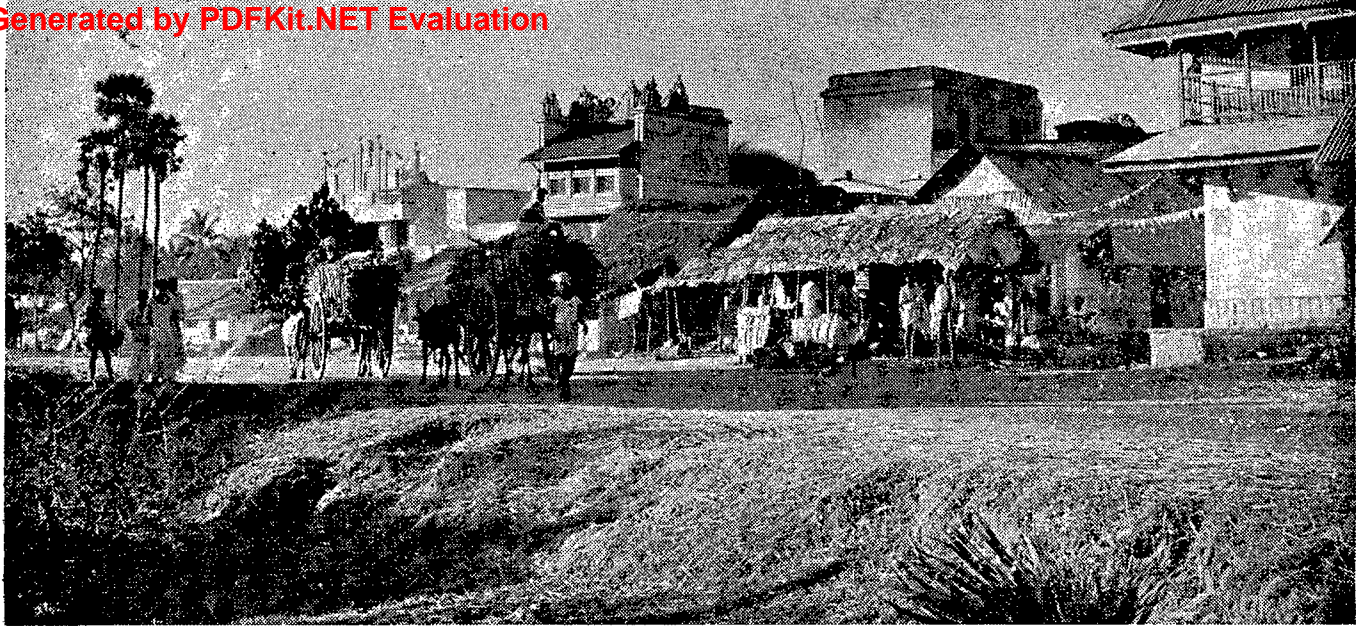
The overall strategy of change has been largely directed at the level of the community and important groups. Regulation and control on the actions and behaviour of the individual or the family is sought to be achieved through group processes at this level. Except in respect of land reform and some of the services provided by it, the Government does not, in principle at least, directly operate the rural development activities at the level of the individual; it reaches and influences him through the Panchayat and other institutions and groups. It has, however, reserved the right to bypass these institutions when they fail to deliver the goods.

### *Assumptions of the Approach*

THE working of this far-reaching scheme of induced and assisted change is based on a number of hypotheses regarding individual and group behaviour. The first hypothesis is that the village as a community is a living entity exercising a certain measure of direction over the economic and social activities of all its members. This community can be helped to grow out of its traditional setting and orientation, so much so that it will be able to undertake productive and welfare activities for the good of all sections. Another assumption is that leadership in the village community is generally informed of social purpose, not merely of sectional interests, and tends to subserve the overall national ideology and objective. Thirdly, individuals have the desire and the aspiration to rise above the restrictive and self-protective codes of traditional behaviour and identify themselves with the national society in ideology and behaviour.

Another hypothesis is that public co-operation for the purpose of accelerating social change can be promoted through administrative encouragement and sponsorship. In its more general form, this raises a basic question, whether and how far a climate or movement for social change can be created through an enlightened administration and accepted as such by the people.

Once the State has created the legal, institutional and material conditions—the infra-structure, the successful working of this strategy and scheme depends, on one side on individuals, groups, community and leadership functioning along the assumed lines, and, on the other, on the competence and efficiency of the administration to provide knowledge, guidance, training, assistance and support. Over the decade of planning, the general framework of this structure has been created. Hardly anybody would, however, be optimistic enough to say that it has started functioning smoothly and efficiently in the direction of steady progress. Weak spots are there both in structure and functioning and need strengthening. A few of these are discussed in the remaining part of this paper.



THE LOOK of prosperity. The village is from Madurai district of Madras State.

OUR plan for rural development includes programmes covering a vast field from agriculture, animal husbandry, co-operation and industries, to education, health, and social welfare services. In some of these areas, there is by now an established community approach in the sense that the members of the community, both individually and jointly, have recognised the need and importance of these activities and facilities and have been demanding their extension at a faster rate. The best examples are education, health, roads and some of the social services. In these spheres of activity, a part of the process of social change has already taken place, in the sense that aspiration, expectation and motivation have taken root. The furtherance of this process seems to have been integrated with the implementation structure discussed above.

There is, however, the other group of activities, mainly in the field of agriculture and other economic pursuits, where decision-making and behaviour are largely individual-centred and the 'positive' role of the community is not discernible in most operations. In these, individual behaviour does not seem to have changed very much in the direction of progressive rationalism underlying the plans and programmes. While it is true that there is a group process working even in these fields, the details of its operation and the channels of communication are not fully known yet. The way in which the village community can participate in and further this process has yet to be fully established. In other words, in respect of adoption of improved methods, practices and techniques the agents involved are still, by and large, the individual family or household operating within the limitations of his resources, skill, environmental and other uncertainty, and the economic institutions. Decisions and actions are taken largely by the individual within the framework of lessons derived from tradition and sanctioned by elders and neighbours.

The studies conducted by the Programme Evaluation Organisation on acceptance of practices, improved seed, irrigation, soil conservation and fertilisers bear this out. It appears from these studies that while more attention needs to be given to the group process, the break-through

in individual behaviour and the creation of suitable motivation for change in these fields require serious and concerted attempts even to work out the accepted extension methods. Some of these may be mentioned here as immediate areas of improvement. The technical programmes like improved seed, plant protection and fertiliser need to be demonstrated and proved to the cultivators far more effectively and successfully than has been possible in the past. This is not merely a question of increasing the number of such demonstrations; more often, it is one of their method, content and quality.

The need is for dissemination of technical knowledge relevant for satisfying the different problems and issues that different cultivators raise and face. Almost every farmer thinks he is unique in his problems. Secondly, the cultivator seldom looks at one single practice or method of improvement in isolation. In fact, he is more 'scientific' in this respect and will not be convinced by an apparent demonstration of success of, say, fertiliser use, unless he knows about its effect on future fertility of soil, its interaction with varieties of seed, its dependence on irrigation or assured rainfall and the risks and uncertainties when these as well as market are not normal. A simple answer that avoids all interrelated issues is seldom convincing. Thirdly, tenancy, credit, prices, marketing, are all interlinked in the calculation of farmers and have important bearing on their motivation and ability to adopt innovations. The greater the uncertainty in these respects, the weaker the motivation. Finally the approach to the question of incentives and inducements needs to be re-examined against this perspective.

Without going into further details, the point may now be restated about the need to reorient our extension methods with a view to focusing attention on problems of individual cultivators as much as possible. The aspects that need re-examination in this context are the soundness and applicability of the research findings, the channels of their communication, the method of their discussion and dissemination, and their integration with the motivation behind adoption and use.

(Continued on Page 38)

# OVERHAUL THE SET-UP

*Decentralised pattern suggested in which agricultural officers will work in close touch with farmers, take new knowledge to them and be squarely responsible for production*

N. K. A. RAO

IT is now realised that the economic and social development of India is dependent upon the technological improvement of agriculture. Recent discussions at the conference of State Ministers of Agriculture, in the Planning Commission and in Parliament have brought out that efforts made so far have not resulted in significant changes in farming practices. The numerous contributory factors have all been stressed, like intensifying irrigation and drainage programmes, increasing the use of fertilisers, stabilising farm prices, ensuring security of land tenure, and expanding co-operative credit and marketing facilities. While these developments are essential for achieving higher production, it is only efficient administration at all levels that can ensure the success of the programme. The question, therefore, arises whether the existing agricultural services in the States are geared to the task.

That people at the helm of affairs are not satisfied with the organisation as it exists is evident. In October 1957, the conference of State Ministers of Agriculture observed that "serious delays in the execution of several agricultural production schemes in the States were due to administrative complexities and over-centralisation of power". It recommended the setting up of a committee to suggest the right pattern of agricultural organisation. The report of the Agricultural Administration Committee (popularly known as the Nalagarh Committee) suggested several reforms. The Committee deplored the outmoded administrative machinery which "encourages and promotes mediocrity" and "bestows on them responsibility without authority". It emphasised that "the problem of increasing agricultural production in India is more an administrative problem than a technical one".

## *Who Will Bell the Cat?*

ALTHOUGH the Nalagarh Committee reported in October 1958, most of the States have yet to bring about the reforms suggested. The purpose of this article is not only to focus attention on the inadequacy of the administrative set-up in relation to the problems ahead but also to stress that reorganisation *would have to go beyond* what was indicated by the Nalagarh Committee.

Who will bring about the needed increase in agricultural production? The obvious answer is: each of the millions of India's farmers. They have to make the required investment in terms of inputs and have to be ensured that the resulting outputs are worth the labour

and money spent. The farmers, therefore, have to take part directly in the process of identifying their own problems, establishing goals, assessing resources, selecting alternatives, taking action and assuming responsibility for that action. It is clear that plans developed at the Central and State level but not accepted by the farmers, who alone can carry them out, remain only paper plans. The problem is to develop an administrative machinery which brings about an effective pattern of local planning and execution.

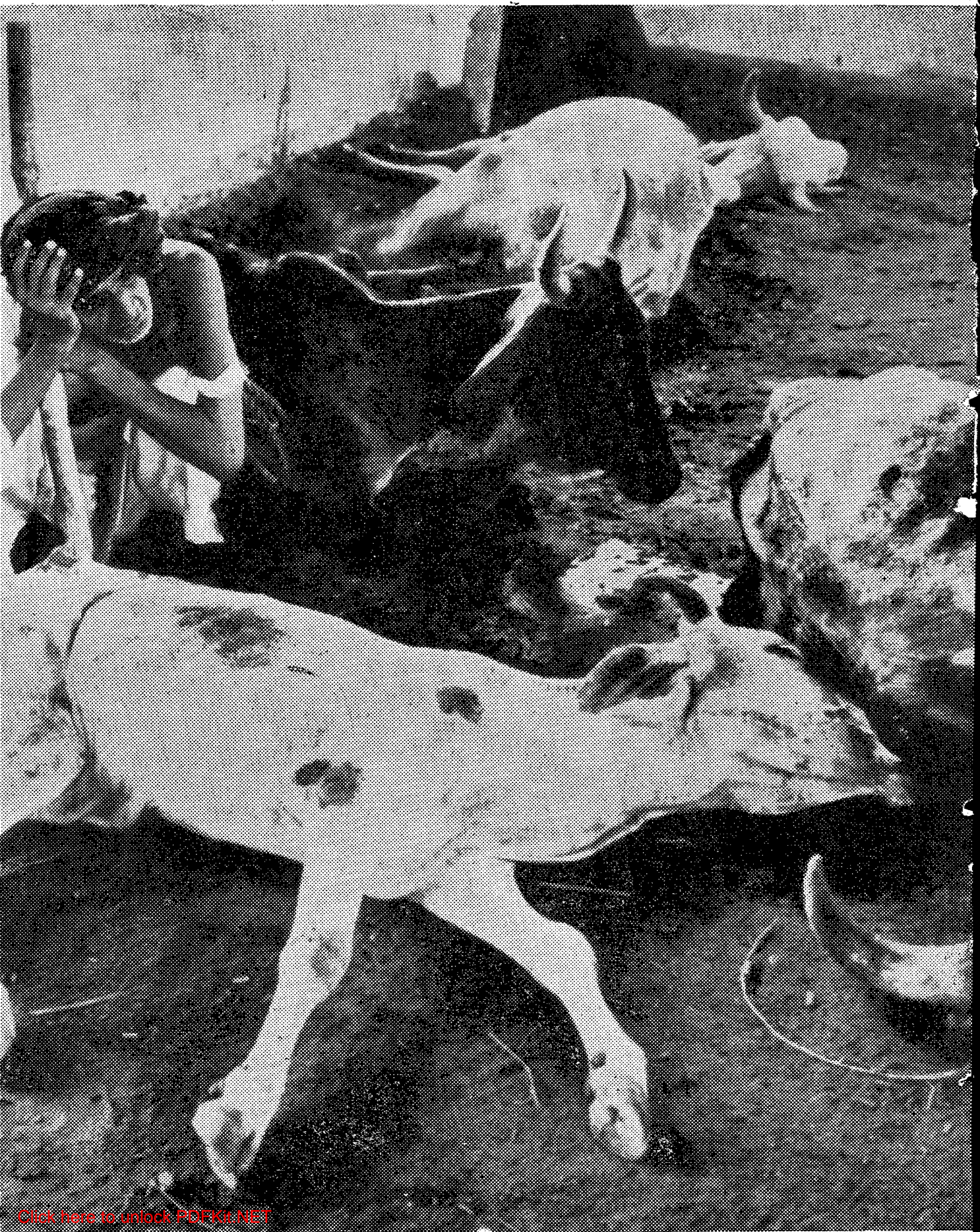
Who, in the agricultural service, is intimately associated with the farmer in his adoption of methods for increasing production?

The typical set-up of the Agriculture Department of a State is a Director assisted by Additional, Joint and Deputy Directors at the State headquarters, Deputy Directors for each of the regions of the State, District and Additional District Agricultural Officers at the district headquarters, Agricultural Inspectors and finally Field Supervisors. The Development Department provides a Village Level Worker for a group of villages. The Field Supervisors and the Villages Level Workers are the technical people functionally associated with the farmers in translating improved technology into actual practice but in terms of knowledge, pay and initiative they are at the lowest level of the organisation.

An agricultural extension programme can be effective to the extent that the improved practices it recommends to farmers are scientifically valid. These must not only be correct and applicable for a district or a block or a group of villages but must also be sound when applied to individual farms. Today all over the country one sees uniform recommendations of fertiliser applications for large areas comprising a variety of soil fertility levels



SCIENCE, full understanding of local conditions and the power to deliver the goods—these are needed



# Why should this happen ?

“Hundreds of cattle in drought stricken Kutch have been dying for lack of fodder and water. Scores of cattle have been abandoned as their desperate owners have been unable to provide them with fodder and water.”

—News Item in the Times of India, 4th August 1963

## This must be stopped

Each year, drought and malnutrition kill thousands of cattle—they die of hunger and thirst. Today, when India is striving to attain self-sufficiency in food, the large scale death of livestock can prove a major setback. Even though our cattle number two hundred million—almost half the human population—the milk yield is extremely poor because they are ill-fed. If all the milk India produces is shared among the people, there would be just 5 oz. per person per day.

## There is one solution

Scientific ‘Mixed Feeding’. This method is being used with great success in Western countries for both livestock and poultry. It consists of the right proportions of feedstuff in kind and quantity...provides the most nutrition with the least feeding labour...results in an astonishing rise in the production of milk, milk products, meat and eggs. It is absolutely essential that we achieve this...*mechanise our cattle- and poultry-feeding as quickly as possible*, set up feed milling plants, complete with storage units, versatile grinding, homogeneous mixing, molasses mixing, pelletising, sacking off and dust control equipment; in short, harness science to help us reach our food targets.

## Top priority for fodder conservation

Alpha alpha and other green fodder are of great importance to cattle in India. And vast quantities are spoilt

each year by rain! The conservation of nutritious fodder is of prime importance. Scientific drying methods are an urgent necessity. A Farm & Ranch Dehydrator can dry up to 7500 pounds of green fodder *in an hour*. It would take months by ordinary methods. And what's more, the fodder is converted to a rich concentrate full of the natural goodness of fresh cut forage! It can be stored...fed to livestock 12 months of the year.

## The need of the hour

Policy makers and technical experts acknowledge it; the Planning Commission, Union Ministries and State Governments have decreed that all impediments which halter food production should be removed. On the one hand, we must mechanise and bring up-to-date our cattle- and poultry-feeding; on the other, we must conserve fodder by adopting scientific methods. These two measures—if implemented immediately and in depth—along with others for irrigation and improved fertilisers, will find India well on its way to providing sufficient food for *all* of its millions.

*Sponsored in the interests of scientific food and agricultural productivity by LARSEN & TOUBRO LIMITED, suppliers of cattle- and poultry-feed making equipment, fodder dehydrating equipment, pneumatic and mechanical bulk handling and food grain storage equipment; plant for the production of tapioca/wheat macaroni including synthetic rice; agricultural and earth-moving equipment and plant & equipment for dairies.*

and soil management practices. Such recommendations not only fail to bring the expected results but waste valuable production supplies and destroy the confidence of the farmers. It is obvious that the unit of the agricultural organisation which is in constant touch with the farmer must have technical ability of a high order and delegated authority to try out practices adapted to the area and not merely implement directions from above.

### Officer Must Share Risk

WHEN a new practice is recommended the farmer has to find additional investment. If expected returns do not accrue, he faces loss. The risks are his, and not the agricultural adviser's. If things do not turn out as calculated, the adviser has nothing to lose since he is secure in his service. However, in a number of countries where agricultural extension or advisory service has made headway, the service is functionally decentralised and the adviser bears responsibility.

In Denmark, advisory work is not organised by the State but by organisations of farmers. The advisers are appointed by the local farmers' and small-holders' associations and their services are often shared by several neighbouring associations. The associations themselves pay the advisers, with Government subsidising the salaries according to specific rules. In U.S.A. the county agents who carry on agricultural advisory work with farmers are employed by County Governing Councils in consultation with the State Agricultural University or College and their salaries are met on agreed basis from the co-operative extension services made up of Federal and State Governments and the local county. The county agents have complete delegated authority to develop programmes in consultation with the farmers. In Japan extension activity is carried out by the central and local governments (the prefectures) in co-operation with each other, the local government receiving grants from the centre for the purpose and the agricultural officer working at the level of the farmer concerned with the proper demonstration of improved technology.

All this is in contrast to our system where the technically weakest person works at the village level. A hierarchical system in which he has to receive directions for his work will not infuse confidence in the farmers and will not bring forth local and group initiative.

### District as Basis

IF agricultural yields have to go up in our country, the district has to be regarded as the unit functioning as a technically independent entity in the matter of agricultural development. The country has already adopted democratic decentralisation and vested Panchayats and District Councils with local self-governing powers. It has now become essential to effect a similar decentralisation of the State Agricultural Service in its technical field so that local initiative and responsibility are readily forthcoming. The following organisational pattern is suggested for this purpose:

The district will have a District Agricultural Officer as at present. He will be responsible for all the agricultural development work of the district, with *freedom to plan and execute* services without necessarily referring to the Directorate of Agriculture. The link with the Directorate of Agriculture will be through annual or biennial conferences, where he will present his plans of work for discussion and advice. He will develop his

plans from actual experience of regional conditions, the resources available within the district and the willingness of individual farmers to work for goals set by them. The Directorate of Agriculture will make allocations of resources to each district according to the plans of the district. The target of production will be developed within the district and will not be laid down by the State as at present.

The District Agricultural Officer will have with him a team of specialists dealing with soils, crops, plant protection, horticulture, etc. There will be an experiment farm for each district which will be managed by these specialists under the District Agricultural Officer, and will be responsible for local research and practical experiments for extension work in the district.

The agricultural advisory or extension staff in each of the development blocks of the district will work under the District Agricultural Officer, though continuing to remain part of block personnel under the Block Development Officer. A more desirable arrangement might be that every Block Development Officer is technically trained in agriculture devoting a major part of his time to agricultural development within the block and assigning to other officers the remaining aspects of the Community Development programme such as social education and co-operation.

The Village Level Worker will not have more than five villages under his jurisdiction. Along with the Block Agricultural Officer he will be responsible for assisting individual farmers. The block will also have a demonstration farm under the Agricultural Officer assisted by technicians, each trained in a broad field of agriculture like agronomy (including soils and crops) plant protection, and farm management. This research unit will be concerned with trying out a combination of improved agricultural practices.

These specialists will work closely with the Village Level Worker in laying out demonstrations in farmers' fields. As in Japan, a number of result-demonstration farms will be set up by the Agricultural Officer in the farmers' fields to carry conviction to them about the efficacy of the recommended measures. As contrasted with the existing practice of demonstrations, these demonstrations will have originated in the work of the agricultural service unit at the block. Problems needing answers on more technical aspects would be passed on to the district experiment station.

In a set-up like the one described above, each demonstration has to be carried to its logical conclusion, while at present demonstrations are laid out only to fulfil targets fixed by higher authorities at the State level and the data are rarely collected or any valid conclusions arrived at. The integration between research and extension (the two-way traffic of which much has been talked but precious little seen in practice) will become more meaningful as the parties concerned are at the spot intimately connected with each other and working under the conditions faced by the farmer.

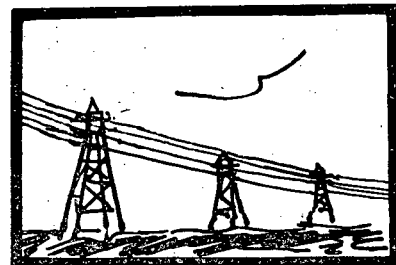
How will the district agricultural service operate?

Funds for staff salaries will have to be placed at the disposal of the District Council (Zila Parishad) and the Block Committees as also the funds needed for the entire agriculture programme of the district including the operations of the district experiment and the block demonstration farms.

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## Section Three : The Industry-Energy Complex

### STUDY OF IMPLEMENTATION PROBLEMS SHOWS WAY TO MAXIMUM EFFICIENCY & REGIONAL PLANNING



# Rational Approach to Power

C.M. TRIVEDI

THE tempo of power development has been rising over the Plan periods. As against the aggregate installed generating capacity of 2.3 million kW in December 1950, the First Plan witnessed an addition of 1.1 million kW and the Second Plan of 2.1 million kW. The Third Plan envisages a further addition of 7 million kW. The latest appraisal places the total installed generating capacity by the end of the Third Plan at about 12.5 million kW, which, if achieved, would mean more than a fivefold increase since 1950. Obviously, implementation of a power plan of this magnitude and the efficient operation of power systems call for a tremendous effort and incessant vigilance, which it is the object of this article to spell out in broad detail.

#### Problems of Implementation

EXECUTION OF POWER projects involves the following steps: (a) investigations and preparation of a project report; (b) technical scrutiny by the Central Water and Power Commission, recommendation by the Advisory Committee on Irrigation, Flood Control and Power Projects and approval by the Planning Commission; (c) allotment of foreign exchange; (d) preparation of specifications and invitation of tenders; (e) placing of orders and issue of import licences; (f) land acquisition; (g) procurement of key materials such as steel, cement, welding electrodes, etc.; (h) execution of civil works; (i) arrangements for transport of machinery from ports or manufacturing shops to works site; (j) erection, commissioning and testing. Slipback in these would dislocate the construction programme with consequent postponement of benefits.

Realising the crucial significance of timely implementation of the power plan, a team of officers from the Centre visited all the States in August-November 1961, and discussed with the State authorities how best the construction of power projects on hand could be expedited and what, if any, were the bottlenecks and how far these, including procedural delays, could be eliminated. Some of the findings of the team throw useful light on the problems of execution. The team noted that in many cases there was inadequate appreciation of the importance of realistic time schedules of construction and of the need to adhere to them to the maximum feasible extent. Target dates of commissioning of plant indicated earlier were often broken with impunity. In many cases, there was no periodical review of the progress of works at the governmental level and this was partly responsible for worsening of time schedules.

The immediate outcome of the team's discussions was the setting up of a separate Directorate in the Central Water and Power Commission and of a special cell in the Ministry of Irrigation and Power, devoted exclusively to watch the progress of works on projects and to assist the State authorities in the procurement of key materials, release of foreign exchange and obtaining of import licences. Some of the procedures for release of foreign exchange and issue of import licences have been streamlined.

#### Investigations

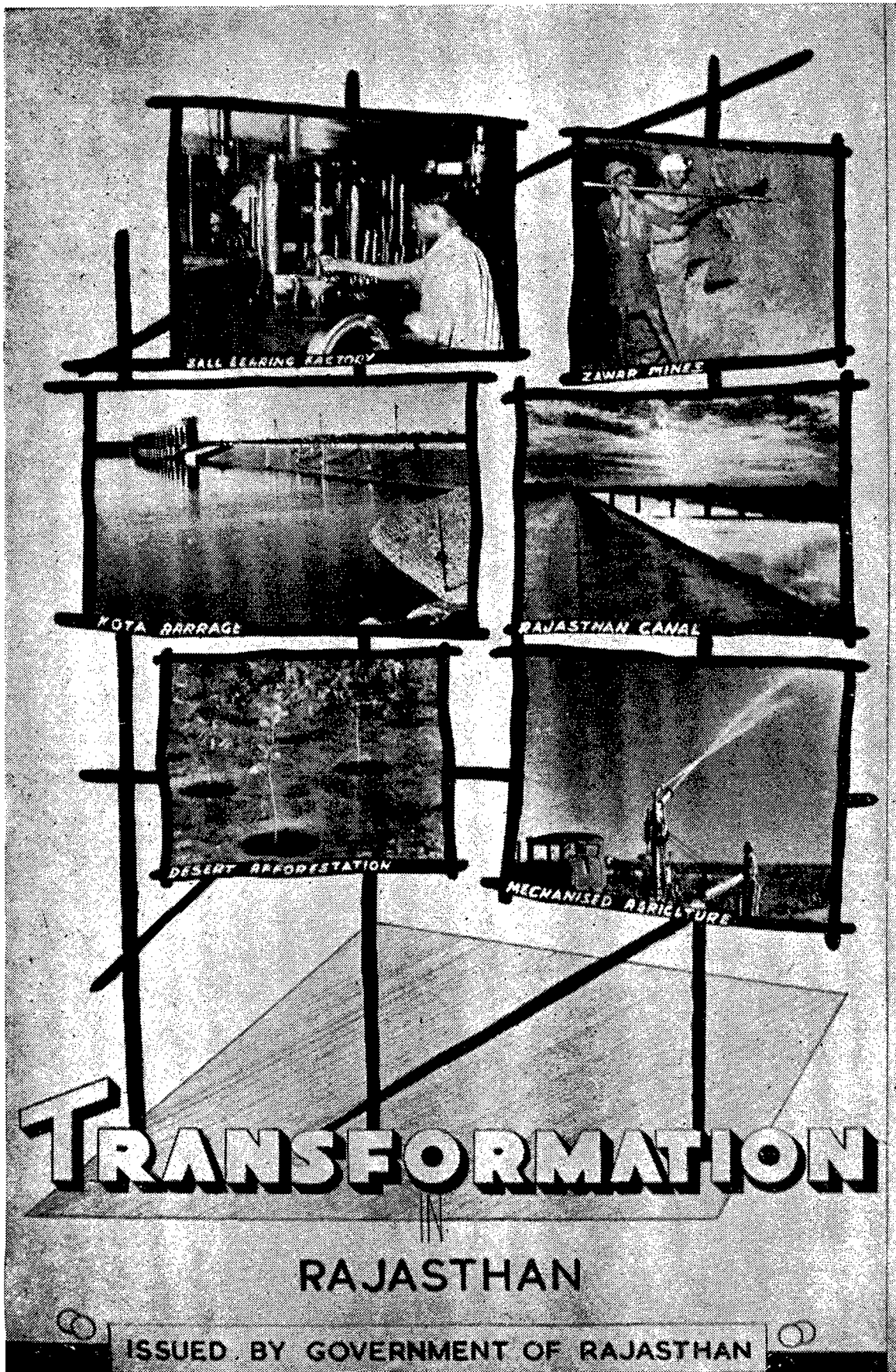
ONE OF THE causes of slow progress on projects is the lack of thorough and detailed investigations before deciding to go ahead with the schemes, either hydro or thermal.

Incomplete investigations of projects have in the past often resulted in under-estimate of costs and over-estimate of benefits. The lesson is that States should undertake full-scale and comprehensive investigations of as many projects as possible and select the most economical ones for inclusion in each Plan for execution. Progress in this matter has not been quite satisfactory and deserves careful attention of State Governments.

#### Exchange and Plant Self-sufficiency

HITHERTO, THE bulk of the power plant has had to be imported from abroad, involving a sizable drain on foreign exchange. Indeed, this was the most serious limiting factor in the implementation of the power programme in the Second Plan. The consequent power shortages in many parts of the country in the early years of the Third Plan called for urgent remedial measures. High priority was assigned *inter alia* to power schemes in the Third Plan for release of foreign exchange. During the first two years of the Plan most of the Third Plan power schemes had already been either tied to some foreign aid or arrangements made for procurement of the plant through trade agreements or indigenously from Heavy Electricals Ltd.

Experience thus shows that unless we achieve the largest possible measure of self-sufficiency in plant and machinery, implementation of a large programme of power development as envisaged is likely to be handicapped for lack of foreign exchange. The generating capacity to be added in each year of the Fourth Plan is expected to be of the order of 2 million kW and that in the Fifth and Sixth Plans will be far bigger.



Government are going ahead with the setting up of heavy electrical projects to meet the future needs of the country. In addition to the one set up already at Bhopal, a second plant at Hardwar and a third one at Hyderabad are under construction. With the completion of these factories and attainment of capacity production therefrom, it is anticipated that the needs of the country in heavy electrical plants will be more or less fully met for several years.

#### Tenders and Schedules

THE TEAM referred to earlier has drawn attention to another aspect bearing on the time schedules, i.e. preparation of specifications, invitation of tenders, decisions on tenders received and placing of orders. The team noticed that in some cases, abnormal delays occurred in deciding on tenders—sometimes more than a year. Decisions need to be taken promptly.

Cases of lack of co-ordination in scheduling of various components of projects were also brought to light—power plant having been received in time and civil works remaining incomplete; timely ordering of switch-gear without corresponding procurement of control cables and other accessories etc. In some cases, failure to acquire land in time accounted for delays in execution of projects. These examples highlight the need to draw up construction schedules to the minutest detail and adhere to them as closely as possible. It is realised that delays in the receipt of imported equipment occur sometimes. While this is largely beyond our control, it is essential to keep a vigilant eye on their delivery periods and to do at all levels whatever is feasible to minimise these delays.

#### Procurement and Transport

IN THE CONTEXT of our large plans for industrialisation, shortages of certain key materials, such as steel, cement, welding electrodes, etc., are inevitable. This calls for procurement action well in advance of actual requirement of the materials.

Very often, transport of imported consignments from ports to works site or from manufacturing shops to the site of a power station have led to considerable delays in erection. In large projects, where a number of consignments are expected from abroad, it may be desirable to post

a full-time liaison officer at the port to receive materials, arrange for railway wagons and book them to destination. Special well-wagons suitable for carrying heavy and bulky equipment are in short supply and have to be requisitioned in good time.

#### Recruitment and Training

RECRUITMENT of an adequate number of experienced technical personnel in proper time is another factor which may affect the progress of works on projects. After construction, staff will also be needed for operating the plants efficiently. Advance planning is necessary for arranging for the requisite number of technicians and for training them adequately while construction is proceeding.

#### Efficient Operation

EFFICIENT USE of fuel is of particular importance in the case of thermal power stations. An organised attempt to operate the units at the highest attainable efficiency can reduce consumption of coal and thus lower generation costs. Reports of the National Fuel Efficiency Service in U.K. indicate that the adoption of (i) acceptable standards of instrumentation and (ii) improvements in boiler operation and computation of heat balances by means of which the energy actually used is compared with the theoretical energy required, would result in substantial savings in fuel consumption.

A fuel efficiency cell has recently been formed in the Central Water and Power Commission with the object of studying all aspects of the problem. It is not commonly known that the capital investment needed to save a ton of fuel is often less than that required to produce the same additional amount of fuel.

Other factors which influence efficiencies of thermal generating plant are the characteristics of the generating plant and the load and power systems. Size of units and parameters of steam are some of the factors in respect of the former category to be taken note of in planning. Thus, installation of large thermal units with higher steam temperatures and pressures would result not only in increased thermal efficiencies, but also in reduction of capital costs per kW of installed generating capacity—a matter of paramount importance in view of scarcity of capital in our country coupled with the

highly capital-intensive nature of electricity supply industry. The following figures are indicative of the progress achieved in this direction as furnished in a report of the United Kingdom Electricity Council:

Size of thermal units and efficiency		
Unit size	Thermal efficiency per cent	Capital cost of complete station £ per kW. of supply output
30	26.0	67 (Rs. 893)
60	29.0	57 (Rs. 767)
100	32.0	58 (Rs. 773)
120	34.0	53 (Rs. 706)
200	36.0	50 (Rs. 667)
275	36.0	41 (Rs. 547)
500	36.5	39 (Rs. 520)

Based on these considerations, the Third Plan envisaged installation of larger sizes of units wherever feasible. About fifty turbo-alternator units of 50/60 mW size, seven units of 75 mW and eleven units of 100-140 mW sizes are included in the Plan. The largest size of power unit which can be installed in a system is of the order of a sixth to a tenth of the system load and this limits the size of the largest unit in a system.

Load characteristics which affect the efficiency of operation are load and utilisation factors. These are inter-related and improvement in one will lead to improvement in the other. Staggering of loads, staggering of office hours and offering tariff incentives for off-peak consumption are some of the measures calculated to improve these factors. Also interconnected and integrated operation of power systems will be of great benefit in this respect. Thus, in the States of Madras, Mysore and Kerala which have fully integrated grids, the load factors in 1960-61 were 55.8, 65.6 and 50.6 per cent and the kW hrs per kW of installed capacity 4120, 5200 and 4200 respectively. In Assam, with isolated power stations, the corresponding figures were 38 per cent and 2200 kilowatt hours per kW of installed capacity.

#### Transmission and Distribution Losses

IN MANY STATES, there is scope for reducing transmission and distribution losses. By reinforcing distribution lines, installing power factor corrective equipment and adopting higher distribution voltages, considerable reduction can be effected. To this extent, additional power would become available for consumers.

Reference has already been made to the advantages of integrating power systems of adjacent States into regional grids. These are:

The total system generating capacity to meet the loads would be less on account of diversity of load demands between different systems;

Requirement of standby would be less;

Large generating stations could be located at the most economical sites in the region for meeting loads in adjacent States;

Thermal and hydro stations could be operated in a co-ordinated manner resulting in more effective use of machine capacity at hydro plants;

Large-size thermo-electric generating plants could be used thereby reducing capital and running costs; and

Mutual assistance could be arranged during times of emergency.

A concrete illustration of the advantages that accrue is that of the interconnected operation of Rihand Power Station with the Bihar-DVC-West-Bengal grid during a few critical months in 1962-63. Although the available surplus at Rihand was only 20 mW continuous, the interconnected and parallel operation of the two

grids enabled DVC to avail itself of 100 mW of peaking power.

In the context of these advantages and also because of the uneven endowment of energy resources in the different States, national interests demand that future planning for power should be on a regional basis and large power stations should be set up at the most economical sites and power transmitted to the adjacent States. This approach to the planning of power development was visualised in the Third Plan and it is proposed to adopt it in the Fourth Plan in consultation with State Governments.

### Rural Electrification

THE IMPLEMENTATION of a large-scale rural electrification programme is beset with several difficulties. The large number of small villages with populations of less than 500, the low density of power demand with poor load factors and the large investments required to bring electricity to these remote parts make these schemes uneconomical.

In order to achieve maximum result with minimum investments, sustained effort should be made to reduce capital costs of transmission and distribution lines and to improve the power demands in villages. The

former could be achieved to a certain extent by adoption of reduced factors of safety, lower ground clearances, using wood poles or other low-cost supports and using all-aluminium conductors in place of copper.

### Surpluses from Undertakings

BY 1965-66, the aggregate investments in the electricity supply industry in the public sector is expected to be of the order of Rs 1,830 crore. Further large investments are visualised in future Plans. It is, therefore, imperative that the public sector electricity undertakings should not only be self-supporting, but should also earn reasonable surpluses to finance, at least partly, the expansions from year to year.

At present, the revenues of some Electricity Boards are not enough even to cover operation and maintenance expenses, depreciation and interest charges. Surpluses should be secured by framing appropriate tariffs and improving operation and administrative techniques. In view of the importance of a rational price policy for the public sector electricity undertakings, a Working Group on "Price Policy for Electricity Undertakings" has been set up to study the subject and to recommend appropriate policies in regard to tariffs, depreciation and redemption of capital.

## Rural Administration

(Continued from page 30)

ONE of the problems that the Government administration will have to face in implementing the strategy of induced social change underlying our plan of rural development is that, in the last analysis, it will have to bear the responsibility for achieving the objectives, and securing the progress stipulated in the plan. It is less difficult for an administration to accept this responsibility as long as it is directly responsible for executing the different activities. Administrative experience and expertise in this country have generally been built up around such activities, whether it is in the field of revenue administration or public works or even education. The methods suitable for this type of work have become a part of our manuals and generally involve decision-making at the highest level and execution of decisions successfully at lower levels through orders and their compliance.

This method works successfully in respect of schemes where responsibility and obligation have been placed on the people either as individuals or in groups, through legislation or executive order. When, however, there is no such authority behind the Government functionaries, they will have to operate through new methods mainly relying on advice, counselling, guidance, persuasion and

inducement. Administrative experience of such methods does not have a long history and needs to be built up from the lowest level. For this purpose, the training and orientation of functionaries from the village level worker to the district officers will have to be given some fresh thought.

The last point that needs reconsideration is the extent to which the extension agency or the rural administration should be kept away from programmes or policies of a controversial or political nature. It is generally recognised that a climate for successful agricultural extension in rural areas cannot be created in an air-tight compartment where the heat of land reform and similar programmes will not be allowed to enter. While this approach may succeed in keeping the administrative machinery non-involved in local politics it also tends to make the social education and other programmes, or even some of the economic programmes somewhat emaciated. This, however, raises some questions which it is beyond the scope of this paper to go into. Nevertheless, it is a fundamental issue bearing on the administration of rural development and social change. In the last analysis, the extent of economic and social change brought about through development will depend on the way in which people and the administration identify themselves with the ideology underlying the plan and co-operate in implementing the legal and other obligations.

# WE MUST MAKE Fuller Use of INDUSTRIAL CAPACITY

P. N. MATHUR

NOT to utilise the installed industrial capacity to the fullest extent is to block scarce capital in an unproductive venture. This is as harmful to the economic growth of a nation as the ostentatious consumption of social snobs. Indeed it has a worse effect on growth, for ostentatious consumption affects savings only, while unutilised capacity not only misuses savings but also misuses the foreign exchange that has gone into procurement of the unutilised capital goods.

In the following pages an attempt is made to gauge the extent of utilisation of Indian capital resources during the first two years of the Third Five Year Plan and to uncover the reasons leading to this state of affairs.

## *Extent of Utilisation*

(a) *Small-scale Sector:* For most of the small-scale industries there is hardly any way for estimating the extent of utilisation. However, it may safely be assumed that utilisation in small-scale industries will usually be less than that in the large-scale sector, because the causes of under-utilisation, like lack of demand or lack of raw materials and power, are likely to hit the smaller units much more than their bigger counterparts.

Mr Gulzari Lal Nanda, in a speech on December 21, 1962, estimated the utilisation of capacity in small-scale industry at about fifty per cent. This is further corroborated by a quick survey of 79 engineering firms conducted by the Engineering Association after the declaration of Emergency. They found that the magnitude of idle capacity in them was about three and a half lakh machine hours per month, which was about half of their capacity. A survey of 246 industrial units made at the end of the Second Plan showed that 47 per cent of the units had to slow down production for a period ranging from one day to nine months while 19 per cent suspended production in the year. This was attributed to the shortage of coal. In the middle of 1962, the supply of coal was reported to be only 55 per cent of requirements<sup>1</sup>.

(b) *Large-scale Sector:* In the large-scale sector on the other hand some idea of the extent of utilisation can be got from the Monthly Statistics of the Production of the Selected Industries in India. Of the major industries, pig iron,\* aluminium\* and copper\* among basic metals; road-rollers, railway rolling stock,\* machine tools, automobiles, ball and roller bearings, and sewing machines among metal products and transport equipment; electric transformers, A.C.S.R. (Aluminium) conductors,<sup>2</sup> paper insulated cables,<sup>2</sup> electric fans, electric lamps, dry and storage batteries and radio receivers in the electric machinery industry; penicillin and D.D.T. manufactures among chemical industries and rayon and synthetic fibre and plywood among others, were working more or less full capacity during the first

two years of the Plan. Even among most of these industries, there is scope for increasing production with the already installed capital equipment, by increasing the number of shifts worked.

The table below gives the per cent capacity utilised in the large-scale sector of some other major industries.

Per cent capacity utilised in some major industries

S. No.	Industry	Per cent capacity utilised		
		1960-61	1961-62	1962-63
1.	Steel ingots*	55	71	90
2.	Ferro manganese*	56	65	68
3.	Lead	62	52	56
4.	Cast iron pipes <sup>2</sup>	78	84	84
5.	Steel wire ropes <sup>2</sup>	54	40	60
6.	Industrial machinery	63	60	55
7.	Boilers	14	28	13
8.	Motor cycles & scooters	97	80	47
9.	Bicycles	95	74	78
10.	Grinding wheels	70	63	75
11.	Clocks and watches	42	38	30
12.	Electric motors	65	76	89
13.	Bare copper conductors <sup>2</sup>	57	42	27
14.	Rubber and plastic insulated cables <sup>2</sup>	47	53	58
15.	Nitrogenous fertilisers	62	60	50
16.	Phosphatic fertilisers	93	73	61
17.	Heavy chemicals	68	75	71
18.	Sulpha drugs	40	43	49
19.	Plastics	62	75	80
20.	Paints and varnishes <sup>2</sup>	61	71	72
21.	Starch and glucose	49	50	50
22.	Rubber tyres*			
	(a) Automobile	90	90	83
	(b) Bicycle	73	93	80
23.	Paper and paper board*	83	89	82
24.	Cement*	84	85	90
25.	Refractories	67	72	79
26.	Insulators	50	61	69
27.	Woolen cloth	100	33	43
28.	Fibre Board	60	53	53
29.	Vanaspati	75	67	72
30.	Power & industrial alcohol*	50	73	82

\* Capacity calculated on three-shift basis

<sup>2</sup> Capacity calculated on two-shift basis.

Some comments on the table above are in order. The large under utilisation of steel capacity, in spite of chronic steel shortage, has been "due to inadequacy of preparatory studies. A few raw materials reckoned upon from nearby sources were found unsuitable like Korba coal for Bhilai or limestone for Rourkela. This lengthened the transport leads and added to the strain on Railways. High ash content of coal and inferior quality of limestone affected maximum output."<sup>2</sup> Capacity for ferro-manganese had to remain partly unutilised

owing to lower production of steel. Domestic production of lead is hardly sufficient for 15 to 20 per cent of domestic demand; even so capacity could not be utilised owing to various shortages.

One of the major causes of the under-utilisation of many industries has been low availability of iron and steel apart from the chronic paucity of power and coal. Industries like cast iron pipes, steel wire ropes, industrial machinery, boilers, grinding wheel and other engineering industries had to keep a large idle capacity owing to the non-availability of the requisite quantity of pig iron and steel. Further, most of these could have increased their capacity almost threefold but were not allowed to increase the shifts owing to power shortage.

An industry like boilers, the demand for whose products is heavy, could only work about one-fifth of its capacity owing to shortage of alloy steel. Similar is the case of ancillary automobile industry and spring manufacturing. Scarcity of welding electrodes led to some fabricators to stop production; and this scarcity was due to shortage of wire rods for electrode manufacture<sup>3</sup>. Three leading Calcutta firms of Vanaspati closed down owing to lack of tin-containers, which could not be fabricated for lack of tin plates.

Overall shortages are not the only causes of unutilised capacities. Wrong proportioning of production of various types has created new bottlenecks. "Large quantities of steel gathered dust in stock yards. Fabricators could not put them to any use because of the lack of matching sections needed in fairly small tonnages. Heavy sections are lying in stores while the requirements are for light sections, the latter being produced much less as the production of the former is conducive to increasing the total tonnage produced by the steel mill, by which its efficiency is judged"<sup>4</sup>.

A revealing case is the story for manufacturing electric conductors. First the industry for manufacturing bare copper conductors developed. Afterwards it was discovered that the capacity for refining copper ore and producing electrolytic copper was limited. A shift had to be made to all-aluminium conductors to save copper. Now the capacity of the latter is fully utilised, while the former is utilised only one-third. This is not an isolated phenomenon. Such instances can be multiplied.

### *Physical Balances*

Thus it is evident that it is the various physical bottlenecks that are at the back of this pernicious existence of unutilised capacities in such a large extent. Our overall planning procedure is primarily financial and aggregative. The primary instruments of planning have been the balancing of investment and savings; and highly aggregative capital output ratios which jointly give rates of growth and perspective. D-tailed programming of individual sectors and industries are the responsibility of the concerned ministries and industries. "Government fixed value targets, but formulated no schemes for achieving them. The textile machinery ad hoc committee drew up plans for textile machinery industry, but not for stores and accessories"<sup>5</sup>. There is hardly any co-ordination of the outputs and inputs of different industries. The industrial licensing procedure is only tuned to ensuring overall investment ceiling and protection of small investors. Ensuring the availability of inputs

and necessity of output is no part of their function. Of course there would be no problem if every input not available within the country could be imported, but this hardly justifies putting the blame of our failure to plan for balanced development on the shortage of foreign exchange.

### *Prospects and Opportunities*

It is necessary to rephase the investment programme in a well-thought-out way so as to reduce the present and likely bottlenecks. The decision of the Railways to use wooden sleepers rather than iron ones is a welcome effort in the right direction. A temporary reversal of construction technology from iron-intensive to wood-intensive may go a long way to relieve iron shortage. The timings of electrification of railways in East India may be re-adjusted to release power in the Calcutta region. These are only two examples.

If we had used techniques that would have ensured a more balanced development and constructed only the right capacities, our industrial growth rate would have easily been fifteen per cent per annum rather than a mere 7.5 per cent. It would then have ranked with the much talked-of post-war economic miracles of Japan and Germany.

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## FAMILY PLANNING

*(Continued from page 16)*

If a couple has come as far as the fifth stage and actually practised family planning they deserve all credit. But there is one more barrier which can render the postponement of prevention of a pregnancy impossible. This is the effectiveness of the particular method of family planning or the particular contraceptive used. An ideal contraceptive must be completely effective, cheap, harmless, easy to use and acceptable from the aesthetic point of view. Some of these factors depend on an individual's attitudes and tastes. Many wives consider contraceptives messy and bothersome and some husbands regard contraceptives as something that robs the sex act of its spontaneity. Further, some couples who already have two or three children desire a permanent method of conception control. To such husbands and wives one may recommend vasectomy and salpinjectomy as the case may be. The choice of the method depends on how effective it can be in preventing a pregnancy to a particular wife.

In a word, success will be attained only if all the steps outlined above are attended to by every family planning clinic or organisation. Otherwise the movement is bound to fail.

# SMALL-SCALE INDUSTRIES

*More Earnest  
Search for  
Enterprise Needed*

## *Why not Government Partnership?*

BALJIT SINGH

Two recent reports, one by the International Perspective Planning Team on Small Industries<sup>1</sup> and the other issued by the Unesco Research Centre on Social and Economic Development in Southern Asia<sup>2</sup>, provide a perspective on the development of small-scale industries in India from two different angles, viz., economic and social. Small-scale industry forms a major segment of Indian industry and the Government of India has been alive from the very beginning of planning in the country to its role and problems which, as pointed out by the International Planning Team in 1954, are centred on the issues of modernisation, rationalisation and expansion. The objectives set by the planners for small-scale and village industries are (i) to meet a substantial part of the increased demand for consumer goods and simple producer goods; (ii) to create large-scale employment at relatively small capital costs; (iii) to mobilise unused resources of capital and skill; (iv) to ensure a more equitable distribution of national income, including the spread of industry over different regions of the country; and (v) to counteract tendencies towards concentration of economic power by a widening of opportunities for new entrants and for medium and small-sized units.

At the present time when the country is endeavouring to achieve rapid industrialisation and establish a socialist pattern of society, it is essential that while most efficient techniques be adopted in all industries, monopoly capitalism should be strictly eschewed. Fulfilment of this condition requires that small-scale industries should be in a position to assert themselves and expand on economic and technological considerations rather than on the basis of any ideology favouring them on other grounds. Small-scale industries have come to denote those manufacturing establishments that have a fixed capital of less than Rs. 5 lakh and have to be distinguished from village industries and cottage handicrafts. In 1960, such small-scale factories were responsible for 38 per cent of the total factory employment in the country and produced 33 per cent of the gross output of factory industry.

THE International Perspective Planning Team has rightly pointed out that there is considerable scope for the expansion of small industries in the country. In order, however, that small manufacturers may be able to realise their full potential, existing programmes for assistance to small industries need to be more sharply focused and certain basic policy adjustments carried out. At the outset small industries have to be treated separately from 'village industries' in future planning and policy formulations. The small plant and industry is an integral part of modern industry while the 'village industries' with their emphasis on handicrafts are not necessarily so.

Further, the small factories are important producers of capital goods as well as of consumer goods and can compete successfully with the medium and large-scale industry as the pattern of organised manufacture becomes more complex and specialised. According to the Team "the chief requirements of modern small factories in order to achieve their integral role in India's rapid industrial expansion are equal access to raw materials and industrial finance, plus selective technical and management assistance." Under the present conditions they appear to be seriously handicapped in comparison with larger units in the allocation of scarce raw materials and imported components. This tends to arrest not only their further development but in several cases even the utilisation of their full capacity. On account of this latter aspect the International Team has concluded that "foreign exchange available for small units should be utilised more for the import of raw materials than for additional capital equipment, and that any loans in the near future should be provided on this basis."

This conclusion has serious policy implications and can be challenged in the overall interest of the development of national economy. Excess capacity here and there is inevitable in the initial stages in the development process. But excess capacity in one segment of an industry small or large cannot be used as an argument for arresting its development all over. A correct policy would be to fix no priorities in this respect and to examine each proposal on its own merits.

ANOTHER important recommendation of the Team relates to the functions of Central and State development organisations. It is urged that the Central Small Industries Organisation (CSIO) should be prepared to disengage itself from activities that it has demonstrated and that can be carried forward by others so that it can concentrate its own efforts on the greatest developmental impact. It is, however, essential here that the qualifying condition that the demonstrated programmes can be carried forward by others should first be fulfilled; otherwise there will be a void. The Team has rightly emphasised that the Directorates of Industries at the State level

<sup>1</sup> Development of Small-Scale Industries in India—Prospects, Problems and Policies. Report submitted to the Ministry of Commerce and Industry, Government of India, July, 1963.

<sup>2</sup> Social Aspects of Small Industries in India—Studies in Howrah and Bombay, UNESCO, 1962.

should be properly staffed and manned and work in close liaison with the CSIO. Another main bottleneck to the development of small industries is the shortage of technical personnel and guidance. Efforts should be made to meet these shortages and a stepped-up personnel training programme is urgently indicated. In certain cases, training facilities are also seriously under-utilised and there must be a co-ordination of these facilities with the trainee demand.

Another important recommendation of the Team is with regard to the industrial estates. For some time now it has been clear that there is something amiss in the establishment of industrial estates in many States. An industrial estate is expected to provide a locational advantage to small industry. But if the estate itself is wrongly located its establishment does not overcome, but rather aggravates, the locational disadvantage. It is, therefore, essential that before an industrial estate is established its economic viability be proved and such estates be planned in combination with such other elements of industrial development as large factories, training facilities, civic amenities and housing, supply of transport and power, availability of material and labour inputs and the market for their output. Ancillary relationship with large units is an important potential source of strength to small industrial units though it does not necessarily mean that there should be segmented licensing in the large and small industry sectors as in the present common production programmes.

**F**INALLY, there is need for dispersal of industry and small industries can play a major role in this respect. At the same time locational advantages of nearness to large industry, transport and power facilities etc., cannot be ignored in the establishment of small industries. In brief, as the Team has rightly pointed out, small industry is no more immune to the laws of economics than is large industry and as such "a policy of trying to implant large amount of industries in the most backward areas or directly in villages is doomed to failure and cannot be justified economically." Actually, the villages should be developed through handicrafts and village industries while further industrialisation should be located around the growing towns and cities.

**T**HE Team, possibly on account of its terms of reference, failed to tackle with a most serious bottleneck in the development of small-scale industries in the country, viz., the scarcity of entrepreneurship. The differential rates of growth during the last ten years in the various parts of the country in the development of small industries can to a large extent be explained by this factor. Some serious thought should be given to analyse the determinants of this determinant.

Enterprise depends more on the character and spirit of a people, on their culture and values, on their aspirations and outlook, and on the social climate around them than on the availability of raw materials, finance or markets. This demands, as has many times been emphasised, that 'science should be in the air' and the traditional occupations of a leisured class be at a discount.

This brings us to the social aspects that act and counteract on small-scale industries. The Karve Com-

mittee at the time of the Second Five Year Plan built a case for small industries mainly on the basis of the social security aspect. The argument that owing to their high labour-capital ratio the small industries are more suited to our conditions than large industry is only as strong as the argument that these could help in the establishment of an equalitarian society. The UNESCO studies in Howrah and Bombay of selected turning shops, blacksmithies and art silk units form part of a series of studies in Southern Asia to throw light on the social implications of small-scale industry in the region. In Howrah under the shadow of many large industries there have developed a large number of small engineering establishments. These turning shops functioning in their own right serve as feeders and ancillaries to the giant industrial machinery in the town. In addition a large number of blacksmithies have grown up for turning out simple products using scrap as raw material.

The work group in the units studied in Howrah was small enough for face-to-face contest and the form of ownership was primarily personal. There have been little changes in ownership or product structure over the last five years, reflecting essentially a conservative one-man-controlled business organisation with a low turnover and depending on self-made or second-hand machines. A limitation of the Howrah study is that it is only of a pilot character and does not exhaust the range of social implications of small industries so that any deep probe is not possible on the basis of these results.

The metropolis of Bombay where a parallel study on art silk units was carried out accounts for a marked concentration of small industries along with its large-scale establishments proving the point that the locational advantages for small-scale manufacture inhere in large-scale industry. With minor exceptions the entrepreneurs in the industry are either Gujaratis, Jains or Punjabis with trade and commerce as ancestral occupation in most cases. Previous industrial experience did not count much in making an entrepreneur. As in large industry the small-scale entrepreneurs too were found to be having little in common socially and culturally with the workers whose mother tongue was mainly Marathi or Tamil and other Dravidian languages. Labour was thus largely impersonal as in large industry in contrast to the work group in the small engineering industry in Howrah which was founded on kinship or village ties. In a sense the Bombay art silk small industrialist represents a more advanced stage of entrepreneurship than that of Howrah where domestic and business accounts are undifferentiated. On the whole the study of these units at Bombay and Howrah are significant in throwing light on growth of enterprise, work practices, work attitude and motivations and the social background within which the small-scale industries operate.

**I**N the Indian context the problem of equalisation of opportunities and that of removal of social handicaps have both first to be tackled in the context of groups rather than individuals. In tackling them as in dealing with the employment problem there is little doubt, that small industries not only can make a major contribution but form perhaps the most potent weapons in our armoury. But this requires bold action by the State

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# INDUSTRIAL PROJECTS IN THE PUBLIC SECTOR

## *Preparatory Planning Is Inadequate*

K. S. GILL

THE creation of an adequate base of key industries—metal, engineering, chemical, petroleum etc.—forms the core of the process of industrialisation initiated by the Second Plan. Naturally enough, in the initial stages of development, the creation of such a base has been largely outside the competence of private enterprise. The public sector has, therefore, been called upon to play the leading role in setting up key and basic industries. This has been reflected in a sharp increase in industrial investment in the public sector. Such investment rose from just Rs 57 crore in the First Plan to Rs 820 crore in the Second Plan. The Third Plan target (financial provision) has been set at Rs 1,470 crore. This amount is about 26 times the First Plan actuals. In the Second Plan, and more so in the Third Plan, the public sector has been responsible for a large number of major projects that are of strategic importance for the progress of industrialisation.

It would be unfair not to acknowledge the progress made so far. It may be appreciated that, as could be expected in pioneering fields, great initial difficulties had to be overcome. The fund of experience with the public sector related to overheads rather than modern basic industry. The projects involved complex technology and were among the biggest of their kind in the world. Progress often depended on factors outside government control.

It would, however, be irresponsible not to take note of, and seek to eliminate, the various impediments to implementation; a lot hangs on how the public sector industrial projects progress. The plain fact is that these impediments are quite serious. As a result, few projects progress on schedule. Shortfall in targets is the rule; completion on time is a rare event. This was the case with the Second Plan projects, and this is the case today. The shortfalls in vital targets have hampered the progress of the economy as a whole. A few instances may not be out of place.

### Lagging Behind Mostly

THE Second Plan target for finished steel was set at 4.3 million tons. Actually only 2.37 million tons were produced in that year, mainly on account of the three public sector projects slipping behind schedule. An output of 4.3 million tons is expected to materialise only in 1963-64, i.e. three years after the original target date. The Third Plan target was set at 6.8 million tons including

0.3 million tons from Bokaro. The actual output is unlikely to exceed 5.5 million tons in 1965-66. The shortfall would be mainly due to behind-schedule progress of the expansion projects of the public sector plants. There is little chance of the Third Plan target being realised before 1968-69, again a delay of three years. As regards alloy and special steels, so important for the engineering industry, the targeted output of 200,000 tons in 1965-66 was to be accounted for to the extent of 48,000 tons by the Alloy and Special Steel Project (ASP), Durgapur, and another 50,000 tons by the Kanpur and Ishapur ordnance factories. Not a ton can now be expected from the ASP and the Kanpur factory in 1965-66. The ASP is unlikely to realise the Second Plan target before 1967-68. Delay in the implementation of public sector projects has necessitated much heavier steel imports than planned and has, in various ways, hampered industrialisation.

Fertilisers are as vital to agriculture as steel to industry and construction. The Second Plan target for nitrogenous fertiliser was set at 2,90,000 tons in terms of fixed nitrogen. The actual production in 1960-61 was only 97,200 tons (as against 79,000 tons in 1955-56). In 1962-63 production was about 200,000 tons. The Second Plan target is most unlikely to be realised even in the third year of the Third Plan. These delays are accounted for by the fact that the implementation of public sector projects has seriously lagged behind schedule. According to the Second Plan document, the Neyveli fertiliser plant was expected to be in full operation in December, 1960. Actually it is unlikely to go into production before 1965-66 and would definitely not reach capacity production by December 1965, i.e. five years after the original target date. The Rourkela fertiliser plant was expected to be in full production (at the original capacity of 80,000 tons) by the end of 1959. Actually it started operation only in the second half of 1962-63 and would not yield 80,000 tons even in 1963-64, a delay of over three years. The Nangal fertiliser plant, too, was expected to be in full production by December 1959. Actually it started production only in February 1961. In 1961-62, it produced a little over half its capacity output. As regards the Third Plan projects, only the Trombay fertiliser plant is likely to be in full production in 1965-66. The Gorakhpur and the Namrup projects are unlikely even to start production by the close of the Third Plan period. The recently taken up Korba project would, of course, spill over into the Fourth Plan.

In the Third Plan, the public sector has been entrusted with several important machine-building projects,

particularly in the field of heavy and precision machinery. With the exception of the projects entrusted to the Hindustan Machine Tools, the progress is generally considerably behind schedule. Even though half the Third Plan period is over, several of these projects have made little headway. These include the first and the second heavy plate and vessel works and the heavy structural works, the ball and roller bearing project and the heavy compressors and pumps project. Several others have not yet advanced to the stage of even commencement of construction. These include the two precision instruments projects, the second ship-building yard and the marine diesel engine factory. As regards the strategic Heavy Machine Building Plant, the Foundry Forge, the Heavy Machine Tool Plant, the Coal Mining Machinery Plant and the Heavy Electrical Projects, there is little chance of their realising the capacity and production targets set for 1965-66. It would be unrealistic to expect full production (corresponding to the capacity target for 1965-66) before the second half of the Fourth Plan period. The lag in the implementation of the machine building projects would add to the difficulties of putting through an adequate Fourth Plan. The shortfall in domestic output would necessitate larger imports of plant and equipment.

Delays have occurred also in the implementation of chemical and pharmaceutical projects. The Organic Intermediates Project, the planning of which started as far back as the early years of the Second Plan, still remains in the doldrums. The Soviet offer of credit for the drug projects was made as early as April, 1958, but the two main projects at Rishikesh and Hyderabad are unlikely to go into production before 1965-66.

The National Coal Development Corporation (NCDC) is no exception to the general rule. As against the Second Plan target of 13.4 million tonnes, it produced 8.06 million tonnes in 1960-61, 6.05 million tonnes in 1961-62 and 8.43 million tonnes in 1962-63. Could it be hoped that the Second Plan target would be realised in the third year of the Third Plan? The Third Plan target for the N.C.D.C. has been set at 30.9 million tonnes. A heavy shortfall looks almost inevitable.

### Study Committee Suggested

THE impediments to implementation deserve serious investigation and effective remedial action. The subject would no doubt be under constant review in the public enterprises, the administrative Ministries and the Planning Commission. An internal assessment is, however, often likely to suffer from the bias towards shifting the responsibility to someone else. An examination by a high-power *ad hoc* committee of officials and non-officials would, perhaps, be more objective and fruitful. The main concern of such a committee should be to draw proper lessons rather than to apportion blame. There has been enough experience, positive as well as negative, during the last seven years to justify such an investigation.

While recognising that only a thorough probe like the one suggested above could bring out fully the various impediments to implementation, one may venture to refer to a few of the more obvious ones. This is attempted below.

### Vague Formulation

AN industrial project can be taken up for implementation only after it has been properly formulated.

In particular, the scope of the project in terms of its product pattern must be clearly defined. This often entails the preparation of a preliminary project report or a feasibility study. In the case of several projects, this essential *planning* step had not been completed by the time the Third Plan was finalised. In the case of some other projects, the scope was defined vaguely in terms of the value of output. What is needed is definition in physical terms. Clearly, all such projects, though included in the Third Plan, were not ready for immediate implementation. In the case of some of these, this step still remains to be completed, even though we are half way through the Third Plan period. Inadequate planning is thus one major factor responsible for delays in implementation. Neither the Ministries and the public enterprises nor the Planning Commission are yet adequately equipped or psychologically geared for expeditious and timely formulation of plan projects. This is reflected in the slow progress with the formulation of the Fourth Plan programmes in such long-gestation fields as iron and steel, machine building, fertilisers and basic chemicals initiated in the summer of 1962.

### Vicious Circle About Exchange

THE time taken in the finalisation of arrangements for meeting the external cost component of projects has been another major cause of delay. The Third Plan has been heavily dependent on external assistance. Out of the estimated Rs. 2,030 crore foreign exchange cost of the Third Plan investment programmes, no less than Rs. 1,900 crore were expected to be obtained through external assistance. This meant that projects could be proceeded with only if and when external assistance was available. In some cases such assistance has not been forthcoming at all. In several other cases, the offer of aid was followed by fairly prolonged negotiations regarding the exact terms and the precise allocation of this aid so that considerable time elapsed before the project could proceed to place orders. Of course, in several cases, delays in arranging foreign assistance were also due to the fact that projects concerned were not yet in an advanced enough stage of preparation. When projects depend upon external assistance, there exists a sort of vicious circle. The formulation of projects cannot be carried far enough till there is some indication of the likely source of external finance for them. On the other hand, such projects may not qualify for external assistance till these are advanced enough for quick utilisation. This vicious circle has been operative to some extent in recent years.

Following the formulation of the scope of the project, a number of steps have to be completed before construction could commence. The more important of these are listed below:

- (1) Choice of location.
- (2) Acquisition of land.
- (3) Preparation and approval of detailed project report.
- (4) Award of contracts for plant and equipment.
- (5) Preparation of working drawings for construction.
- (6) Award of contracts for structural fabrication, civil work and erection of plant and equipment.
- (7) Procurement of construction materials to be supplied to contractors.

- (8) Finalisation of arrangements for bought-out services (power, water, etc.) for construction.
- (9) Preparation of construction and commissioning schedules.

Generally these steps take several years, often longer than actual construction. Existing arrangements and facilities for the completion of these steps are generally very inadequate and the procedures very dilatory. The delay in the implementation of several projects has been due very largely to the under-estimation of the time required for the above steps.

Delays occur in the construction phase also. Often it takes much longer than necessary or anticipated to set up a proper project authority. Physical scarcities, the absence of a detailed Annual Plan to serve as a guide for the allocation of scarce materials, and inadequate administrative arrangements for the enforcement of allocational priorities combine to cause delays in the procurement of constructional materials and facilities. The fact that generally the bulk of the equipment has to be imported involving considerable lead times adds to the difficulties of timely deliveries. Moreover, construction of modern industrial complexes is a much more specialised job than the construction of roads, canals, administrative buildings etc. It calls for the creation of specialised construction organisations. In the absence of such agencies, the construction organisation has to be set up afresh for each scheme and has to be disbanded on its completion. This is very wasteful in terms of time, cost and useful experience. The need for setting up specialised agencies for designing and construction was recognised in the Third Plan document. Pending implementation of this recommendation in regard to specialised organisations for the construction of modern industrial units, a gap in the needed facilities continues to make itself felt.

### Unrealistic Estimates

THE planning of construction and commissioning schedules is often unscientific and unrealistic. Little progress has yet been made in adopting modern programming techniques such as the critical path method to work out schedules that dovetail the various parts of the project properly and cut down construction time to the minimum practicable. Discipline in the matter of adherence to schedules is also quite loose. Behind-the-schedule progress being the rule, there is no shake-up of project authorities and other administrative agencies even when the most important of the projects slip by years.

Finally, there are delays in the utilisation of the capacity created. Some of these delays are inescapable. It is impossible to avoid teething troubles altogether. There are, however, quite a few others that could be avoided through better programming. For instance, one has a serious apprehension that in the case of the heavy machinery enterprises now being set up, the gap between the creation of capacity and its full utilisation may extend over several years. Delays in the recruitment and training personnel, setting up product design organisations, procuring adequate orders, and arranging for the supply of bought-out materials and components are some of the factors that lend substance to this apprehension.

Limitations of space prevent even an outline reference to the required remedial measures. The present article is, therefore, confined to posing the problem, making a brief reference to some of its more obvious elements and inviting attention to the urgency of serious investigations and effective remedial action. The object is not to run down the public sector but to press for measures for its invigoration commensurate with its key role in industrialisation. Only a sincere friend would care to offer constructive criticism; a wise foe should consider silence more promising.

## SMALL INDUSTRIES

(Continued from page 42)

as much in the social field as in the economic. The 'subordinated' groups at the margin rather than individuals in these groups have to be given facilities and encouragement to rise in the social status scale through a system of preferential treatment for the establishment of small industries. But it will not be enough for the State to play the role of a "facilitator". In order that small industries may fulfil their proper functions in the industrialisation of the economy and in the socialisation of its structure the State will have to be an initiator as well as a partner. For this purpose, along with the establishment of industrial estates, complete blue-prints have to be prepared for the different units that could be located therein; arrangements made for their capital equipment and raw materials; facilities of power and transport given; training programmes undertaken to augment the supply of needed skills; and State-partnered co-operatives of the workers organised to undertake these units. Such programmes should be phased according to a time-schedule both in and outside the industrial estates. The State may gradually withdraw from the older units as its workers gather the necessary experience to run these undertakings on co-operative lines without State partnership. It is a positive programme of this type, rather than a facilitating programme of the type undertaken hitherto, that is required to push forward the small industries from the viewpoint both of their employment potential and contribution to industrialisation on the one hand and establishment of a socialist pattern of society on the other. Hence it is time that economic planning in the country be reappraised in the light of the needs and potential of small-scale industries.

The Third Five Year Plan envisages a scale of national effort far exceeding that of the preceding decade. A statement of its objectives and targets can scarcely convey the scope and range of the tasks which the nation has undertaken to fulfil during the next five years. In the last analysis the Plan rests on the belief that the requisite effort will be forthcoming and that, at each level in the national life, within the limits of human endeavour, an attempt will be made to implement it with the utmost efficiency. Of the many assumptions on which a Five Year Plan is based, this is not only the most important but also the most difficult.

—Third Five Year Plan, Page 276

# COST REDUCTION

*Corporation Will Help***S.K. MURANJAN**

UNDER a free economy such as prevailed in our country before 1939, control of costs is automatic. Unless competition gives rise to monopoly or oligopoly, every unit has to strive to check its costs if it is to survive and make a profit. As entry is by definition free, large profits cannot be retained long without reducing costs or facing new competing units. The penalty of sustained high costs is swift and certain losses and ultimate extinction. Internal competition is not, however, the only restraint on costs. Although tariffs protect to an extent certain selected industries, the check of foreign trade is not less real or less inexorable. Every industry has to maintain itself against more or less keen competition from scores of active or potential sources of foreign supplies and it can do so only by means of competitive prices and quality of its goods. As inefficiency or mistakes are sure to be penalised, no outside authority is required to keep a watch over or interfere with production costs.

What is equally important, every producer is more or less completely in control of his own costs. This is not to say that even in unplanned, free economies, the Government has no influence on business costs. But its direct concern with those costs is limited to economic overheads which it undertakes to provide. Rail transport and road facilities were in this country almost the only overheads for which Indian Government accepted responsibility in pre-1939 days. It was possible by building roads on a certain pattern or fixing railway rates in a particular manner to encourage or discourage trade or industries in particular directions. Even in those days, Government could have expanded the provision of overheads to include power and water without exciting adverse comments as interference with private enterprise. But as industrialisation was hardly the policy of the British Government for this country, it is hardly surprising that it never thought of this.

With the adoption of planning, the double check of internal and external competition has been suspended to a material extent. In the first place, for reasons which are well-known, a public sector has come into existence. It has, therefore, become necessary to prevent undue competition for investment resources, real or financial, between the two. Besides, there are priorities, high or low, in each of the two sectors and employment of resources has to be in accordance with those priorities. A system of licensing has, therefore, come into vogue which covers capital issues, establish-

The views expressed in the article are in the author's personal capacity and have nothing to do with his official position.

ment of new units, expansion of capacity, diversification or addition to products, etc. Free entry is more or less severely restricted and the incentive to incessant reduction of costs visibly diminished.

The prohibition of, or more or less severe restriction on, imports of luxury goods or goods which minister to production of such goods does not explain the origin of our present import controls. Such prohibitions or restrictions have become familiar to us now as conserving our foreign exchange resources or domestic investment resources. But the original impulse to quantitative import restrictions did not proceed from the needs of planning at all. The war ended in this country as in many other countries with large pent-up financial resources and, therefore, pent-up potential demand with certain classes of people. These threatened now and again to break out into inflation and adverse trade balances. The demonetisation of thousand-rupee notes proved a mockery. The devaluation of 1949 even did not correct the situation firstly because it was devaluation against the dollar only and more so because the continuation of controls sustained the rising reservoir of pent-up financial resources.

It is a moot point whether in a country with its trade balance in good trim, the adoption of planning with deficit financing, even such as we have adopted, must needs involve quantitative import restrictions. The answer will depend on two questions: whether tariffs are enough to take care of growing industries and whether priorities of planned investment would allow adequate weight to the need of an expanding export trade. If these two questions are answered in the affirmative, quantitative import restrictions need not be an inseparable adjunct of planning. True, in the absence of import restrictions, growing industries would have to compete in quality at least with foreign goods and export industries would divert to themselves more investment resources. But for all that, the economy would enjoy more sturdy health as the state of the trade balance would, time and again, hoist the danger signal against inflation or rising costs.

As things happened, no serious effort was initiated in pre-planning or initial planning days to eliminate quantitative import restrictions. As planning got more and more into trade balance difficulties, further and further import restrictions were superimposed on pre-existing restrictions. This is how quantitative restrictions have spread to even essential requirements like vital raw materials and even capital equipment. Quantitative restrictions have even developed an attraction of their own on the ground that countless users' licences obtain their raw materials, etc., at approximately international prices and their ex-factory prices at least can be frozen at moderate levels! In any case the dismantling of quantitative

import restriction can now be only a long-term objective and during the interim period efforts must be made to bring our costs and prices into parity with foreign costs and prices.

The aggregate effect of the present situation is that the check of foreign competition has also become largely inoperative and domestic costs and efficiency have parted company with foreign costs and efficiency.

### *Government Responsibility*

THIS is how Government has become responsible in several industries for the size, expansion and number of individual units and even the quality and design of their products. But this is not all. Planning involves social objectives, many of which have a serious bearing on the efficiency of the whole industrial structure. One such social objective is regional development which in practice is sometimes difficult to distinguish from regional political pressure for location in particular areas. In certain cases no doubt, physical conditions dictate location. But in others, many alternative locations are possible and it is not always the case that efficiency and viability are allowed to prevail over political expediency. Another social objective is the protection of the small-scale sector or the traditional sector both of which are somehow identified with maintenance of low incomes but widespread employment. This has meant discriminatory taxation or physical restrictions on the large-scale sector with inevitable consequences on its progress and efficiency, which call for careful investigation.

This planned regulation of size, number, location, technical condition, etc., of units in many industries raises two difficulties. Self-evidently, decisions on size, number, location, technological condition, etc., cannot be reached except on the basis of study of relative efficiency, i. e., costs. Secondly, with the restriction of free entry, conditions of shortage prevail in many industries for more or less long durations unless it is feasible to allow new units or expansion of old units without much delay. In such circumstances, the incentives to efficiency are very much weakened and there is every danger that the country may have to carry indefinitely the load of inefficient units and industries in the name of planned development. A vigilant watch on cost-trends is thus the only alternative which could take the place of competition which is necessarily more or less suspended under planning.

### *Industrial Costs*

THE actual procedure of cost-analysis involves not a few difficulties. If the industry under investigation is composed of a few units, it would be possible to cost all the units. But if the industry is composed of scores and hundreds of units, some selection has to be made. In the study of relative efficiency and the factors which influence it, the most suggestive contrast should lie between the most efficient and the least efficient units. But it is not easy to frame an over-all index of efficiency which would be an unerring guide to allocation of units to one group or the other. The ratio of gross or net profits to sales, physical productivity per unit of some outstanding factor of production, etc., could be suggested but every such index has its own special limitations. A good deal of discretion and judgment, particularly in

the light of past record of each unit, must necessarily enter into the final decision.

In the interpretation of the assembled costing data, it is necessary to guard against certain dangers. It rarely happens that the relative levels of costs are decisively influenced by a few outstanding factors like power, labour or raw materials. The efficiency and ultimate viability of a unit are the outcome in the aggregate of countless cost elements. Each unit is at an advantage in relation to certain factors and at a disadvantage in relation to other factors. A unit which is ideally situated in relation to all factors must always be a dream and a dream is not a sound basis for reaching practical verdicts for a practical world. At the same time, it must not be overlooked that in a dynamic world, levels of costs are high or low only in relation to a particular situation or set of circumstances and one must not be oblivious of new forces which are already knocking at the door and are bound to assert themselves sooner or later.

Secondly, it is important to distinguish between cost-elements which are the effect of forces which influence, by and large, the industry as a whole and those others which are more or less clearly peculiar to each individual unit. It is obvious that an outside authority like the Government could operate only on the general forces at work which bear a share in the cost levels of any industry. Factorwise costs throw quite important light on effects of location, capacity, use of raw materials, standardisation of products, etc. which are important considerations in issue of licences. Processwise costs—where production is split into distinct processes—bring out many times the wisdom or unwisdom of employing particular kinds of equipment—which again is obviously a matter of general policy. As regards deficiencies which are clearly special to individual units, the matters have to be taken up separately with each unit concerned. Quality and problems of labour, patterns of production, availability of funds, sources of power and raw materials are examples of difficulties which are more or less special to each individual unit.

### *Raw Material Costs*

THE discussion has related till now to industrial costs or what are sometimes appropriately called conversion costs. But many of our industries are largely based on agricultural products like cotton, sugarcane, oilseeds, etc., and this raises some of the most difficult problems of our economy. These raw materials have to be grown in competition with food grains and, because of the precarious balance of our food situation, cannot be allowed to overstep certain acreage limits. For one thing, therefore, we have to arrange for the utmost economic use of the limited supplies of these products with proper regard to the purpose in view. In the case of raw materials like cotton or oilseeds, it cannot be said that we have yet achieved the most economic allocation possible.

Much more difficult is the problem of the prices which industry has to pay for them. Stabilisation of agricultural prices is no doubt most desirable in the interests of all classes—farmers and non-farmers. But the levels at which they are to be stabilised involve conflicts of interests which are hard to reconcile. As in some other countries, farmers in India are potentially a

great political force and there are sufficient indications that they are fast becoming aware of their strategic position in the governance of this country. In other circumstances, international markets would impose a ceiling on the extent of the exploitation which farmers would achieve at the expense of non-farming classes and the country generally. But planning with its severe restrictions on foreign trade has created a situation in which abuse of political power could become a grave danger to the health of the economy. The alignment of prices of different agricultural products on a rational and scientific basis which is understood by all interests is much more than overdue if this country is to maintain and improve its position in the world markets and achieve the proper trade-balance. As things are, cost-data for agriculture hardly exist at present.

All are agreed that the only economic and final solution of the farmer's problem is an increase in the per acre yield of all crops which by any standard is too low and not an increase in prices from time to time under political or class pressure. Unfortunately, despite three Five Year Plans, practically nothing has been achieved on this front.

### *Price Fixation*

It is important to distinguish between procedures for price fixation and cost reduction which self-evidently are not identical objectives. Price-fixation, the need for which arises from a more or less temporary shortage, proceeds on the presumption, right or wrong, that during this short interval at least nothing should be done to aggravate the shortage by curtailment of production. There is no such limiting condition in cost reduction studies which are essentially inquiries into causes of efficiency or inefficiency of industries. Elimination of these causes must cover a very wide field including government policies, structure and organisation, relative merits of different technologies, price-policies regarding raw materials, etc. which hardly fall within the ambit of price fixation. It would be no exaggeration to say that by and large price-fixation is backward-looking while cost reduction is forward-looking. The number, classification, character and even content of costings involved in the two procedures are quite different and it is not likely that efficiency studies of diverse industries could (as in the case of price-fixation) be ever reduced to a pattern or routine. When it is recalled that industrial efficiency is a function not merely of domestic conditions but must take note of foreign trends, the much wider perspective of cost reduction studies becomes still more clear.

### *Productivity Studies*

STUDY of productivity has an obviously close relationship to that of cost reduction and it is necessary to indicate the relative position of the two. In erecting and working a factory, some decisions have to be made on purely financial grounds while in others, both financial and technical considerations are intertwined. Given the technical conditions of production, location of a factory is almost entirely an economic or financial decision. But in installing a particular type of equipment, while technical considerations are predominant they must also take account of the economic conditions in which the equipment is to be set up. The

role of productivity analysis is subsequent to technical and financial decisions. Given the technical conditions as they are, productivity analysis investigates why the results are not better than they actually are. This is why productivity investigations are valid for each unit for itself but rarely embark on generalisations for the industry as a whole. Inter-factory productivity comparisons are apt to be as barren of finality as international productivity comparisons for the simple reason that the financial outcome and not quantum of physical product decides the success or failure of production. As conditions differ from unit to unit and productivity is the joint outcome of more than one factor, differences in productivity are hardly to be traced to any particular cause or set of causes. It is possible to make experiments in the same factory with appropriate controlled variations in conditions of working. But it would hardly be feasible to make the required variations in more than one factory to arrive at a solution of a particular issue in question.

### *Expansion of Exports*

THE problem of costs has become very acute with the difficulties of our trade-balance and export trade. When the First Plan was on the anvil, it is doubtful whether the farmers had even a vague notion of the importance of expanding exports to the implementation of our Plans. It was only actual experience which brought the realisation that as our Plans progress, there would be more and not less need of foreign exchange. Even if the realisation had dawned earlier, it would not have been easy to formulate our planned priorities so as to allow for the need for expansion of export trade. It is not easy to select particular lines of production exports of which offer the maximum advantage to the exporting country. While a country can export almost any product which it can offer at competitive prices against its rivals, it can never be proved that it could not produce some other products even more cheaply and, therefore, export with still greater advantage. The question of alternative choices arises because over the short period at least resources for investment are limited. Under competitive conditions, the actual fact of exports is the only proof, of a *post facto* character, that investment resources have been most advantageously allocated. But under planning, no index can be invoked to prove that one industry is better suited for export production than another and, therefore, investment priorities should conform to one pattern rather than another.

The difficulty is somewhat allayed in the case of what are called our traditional exports. We inherit these traditional exports from pre-planning and pre-war times. There is, therefore, some presumption that these lines of production are economically suited for exports. The development and expansion of these traditional export lines for the purpose of more export need not cause fear of misdirection or frustration of investment.

But investment under our planning has till now been dominated by concern for domestic development and has recorded by and large a distinct shift from traditional lines to new lines of production. In the industrial field in particular, many new industries have made their appearance. As indicated above, it is not possible to

*(Continued on Cover Page iii)*

## Section Four : Work and Welfare

# SOCIAL POLICY IN A DEVELOPING ECONOMY

V. K. R. V. RAO

*Based on a speech delivered at the inaugural session of the Planning Commission's Seminar on 'Social Welfare in Developing Economy'*

Only a reawakening  
of conscience will  
help us solve  
the new social  
problems

THE basic objective of the economic development is of course an increase in production of goods and/or an increase in national income. This increase in national income is obviously intended for the purpose of raising the quantum and quality of welfare in the community. In this process of development, however, certain changes take place, both structural and psychological that have a direct impact on social welfare. It becomes, therefore, necessary that along with the emphasis that is given to production and distribution in economic development, attention needs also specifically to be paid to social welfare. The object of this brief note is to indicate the policy measures which are required to prevent, on the one hand, adverse effects that development may bring about in social welfare and, on the other, to increase the quantum of social welfare accompanying development.

Development involves industrialisation, urbanisation and modernisation of the economy with application of science and technology for the process of production. India's economic development has also evolved along this general pattern. Thus, the last 12 years of planning in our country have seen a big spurt in industrialisation. The factories have increased in number with substantial increases both in investment and in labour and employment; output has been significantly diversified, and an increase of more than 100 per cent has taken place in the over-all index of factory output. Urbanisation has also been accelerated. Though the proportion of urban population to total population has not risen significantly during the last Census decade, there is substantial absolute increase in the number of urban residents with the total urban population standing at a figure of nearly 78 millions in 1961. Scientific and technological education has increased apace during this period and one can see visible signs of the application of science and technology to the processes of production in Indian economy.



SUCH changes inevitably affect the welfare of the people. With development comes a change in the attitude of the people, their sense of belonging, their sense of personality fulfilment, their sense of social identification and their feeling of happiness. Industrialisation, for example, brings a large number of people for the first time under industrial discipline. People

who might have been working at home so far and who with all their low standard of living had a greater sense of personal freedom, now find themselves working in factories in conditions of mass production. Commodities cease to be a reflection of individual personalities and become standardised and mass-produced. Work becomes almost wholly a means to an end and ceases to give any psychological satisfaction in itself. Industrial discipline involves changes in habits, customs and ways of life that require a considerable measure of both individual and group readjustment. From pasture, agriculture, hunting, tribal life and hand industries to pass on to factory discipline which requires working with machinery in an organised group and during regular hours—all this calls for changes in attitudes which, if not deliberately promoted and eased, may well lead to a reduction in the sum total of social welfare. Thus, for example, despite 50 years of industrial development in Jamshedpur one cannot still say that the tribal people who constitute the original population of the place have either been fully integrated into one pattern of living or obtained the full benefits of the progress in the methodology of production. Our development programme has resulted in the establishment of a number of industrial townships, in what are called virgin areas, that is, regions which hitherto had not known the intimate impact of industrialisation; and the establishment of more industrial townships is also likely to follow from our further development programmes.



A PART from changes in work psychology, industrialisation, as well as the urbanisation that accompanies it, also creates welfare problems. Urbanisation means that a large number of people go out from villages to the towns. When they go there, where do they live? What happens to their housing conditions? I think every city that has grown up in this country, not excluding our own city of Delhi, has had slums and has been finding it more and more difficult to solve the problem of slums. The Prime Minister has times out of number thrown his entire personal weight behind the programme of eliminating slums and in spite of it he has not been able to make more than a dent upon the problem. If there are any vacant places in a town, labourers soon swarm there and convert them into *jhuggies* and *bustees*.

Must slums always be an accompaniment of industrialisation and urbanisation? Or is it possible for us to so plan our new cities that right from the start some space is found where casual and temporary labour could be housed in conditions that are not entirely uncivilised?

Then again urbanisation involves problems of juvenile delinquency, of social education, of family life. Take one important problem about which we have done very little in spite of a dozen years of planning in this country—that of women workers. In the last five or six years the number of women who work for a living has grown rapidly, especially in what are called white-collar jobs. Now it is extremely difficult for these women, single women or married women whose families have been left behind at home, to find accommodation even in a city like Delhi. Working women's hostels are almost conspicuous by their absence even in the bigger cities, let alone the smaller towns. Problems such as these are not directly related to questions of investment and targets of production of goods and services. They reflect the changes that take place during development which affect the human being and disturb the content of his or her welfare.



LET us turn to the consequence of the introduction of science and technology. Science and technology do not merely mean learning to handle machinery. They mean rationality, or what the Prime Minister describes as the scientific temper. They mean the shedding of superstition and of age-long taboos and inhibitions. The scientific temper consists in asking questions and seeking rational solutions not only to economic affairs but also to all the other affairs of a modern industrial society. Now, how do we bring about this rational attitude? How do we accustom the population to accepting the discipline that accompanies an industrial civilisation? Until now we have not bothered very much about it and taken it as incidental to economic growth. That may be all right in an unplanned economy, but when we are having a planned economy, we have some responsibility for seeing to it that the transition from a pre-industrial society to an industrialised urban society is as smooth as possible. If we want social welfare to be paid adequate attention in a developing economy, we must find the right answers to three questions which I shall now examine.

First, positive action must be taken for facilitating the change from a pre-developed economy to a developed economy, not so much in physical terms as in psychological terms. The sense of frustration, loneliness and strangeness that comes upon people when they leave their families and come into an industrialised and urbanised society has to be taken care of. Most of us are urban-born and bred and, therefore, we cannot understand this problem fully, but a large number of people who are drawn in by the processes of economic development come from social and psychological surroundings which are entirely different from those to which we are accustomed. How could we facilitate this process of change? Through education? Through voluntary institutions? In physical terms, should we set apart open spaces from the start for casual labourers that come into a town where they can stay and where a few mini-

mum amenities are provided for them? Should we not have a special machinery in all growing towns whose sole business would be to receive new-comers, facilitate their settling into the new environment, and help them to find solutions to their problems of accommodation, education, employment, etc.? All these are questions that need answers if we want to promote social welfare in the context of a developing economy.

Apart from this preventive aspect of social welfare, attention must also be given to the curative aspect. This is something with which we in the Planning Commission are concerned and about which the Central Social Welfare Board has done a great deal within the limited resources placed at its disposal, namely, taking counter-action against the disabilities that accompany the process of economic development. These disabilities mostly fall on the weaker sections of society—children, women, handicapped persons, and older persons, broadly all those who are not able to take care of themselves or organise themselves.

Now to the third objective. I have been disturbed over what I think are the trends that I see emerging—maybe because as one grows older one rather tends to become idyllic about one's past—in the way in which social values are altering amongst the younger generation. Somehow there seems to be some falling off in the standards of values that we used to have 25 or 30 years ago. It is important, therefore, to try and find out how to ensure the maintenance of social values. If we want economic development we cannot escape materialist dynamics. We shall have to emphasise material production, material incentives, and what may be called self-regarding activities. There can be no economic development with *sannyas* and renunciation. And yet how do we, along with the materialist dynamics of economic development, maintain, to the maximum possible extent we can, the social values of solidarity, cohesion, compassion, sympathy and identification? That seems to me the most important problem of social welfare in the context of our developing economy.



THERE are three methods by which we can try and ensure the maintenance of these values in the context of materialist dynamics. One is by promoting, as much as possible, what I would call collective consumption. Collective consumption of social services is the only way by which we really can look after the handicapped and the weaker sections of community. Through Governmental initiative and public support, we must expand this field of collective consumption of social services, schools, hospitals, parks, gardens, playgrounds and theatres. The more we are able to weave such social action into our plans of economic growth the more I think we will be able to prevent the materialist dynamics from dominating the picture of economic development.

The second approach consists in the work that voluntary agencies can do. People who had visited Madras twenty years ago would have seen—or failed to see—a little shack of a building called the Andhra Mahila Sabha. If they went there again they would see an impressive institution. Mrs. Durgabai Deshmukh did not achieve this by being a Member of the Planning

(Continued on page 57)

# SOCIAL      Priorities need to be POLICY      defined more precisely

V. JAGANNADHAM

THE object of social policy is the "right ordering of human relationships". It is concerned with the establishment and promotion of such human relationships as would bring about, what Radcliffe Brown calls "Coaptation" or "fitting together." A distinct characteristic of "social coaptation," according to him, is that "the behaviour of the individual members of a society shall be standardised in some way." Human society since earliest times has been guided by some principles in this process of social coaptation and these constitute policy, for, policy, broadly speaking, is a "body of principles to guide action". The four stages of policy are: (1) Gestation, (2) Formulation, (3) Confirmation and (4) Implementation. The ingredients of a sound policy consist of: (1) a clarification of goals; (2) an exhaustive evaluation of the situation to be met; (3) the selection of a course of action by weighing the probable consequences of various alternatives; and (4) the determination of optimum means for carrying out the action decided upon.

Policy, therefore, includes a statement of goals and a plan of action. It implies a conscious attempt at shaping the social customs, traditions, institutions and actions so as to reach the stated goals.

Social policy does not easily lend itself to a simple or clear statement because of its pervasiveness and vagueness. Social, economic and political policies impinge upon one another and are inextricably tied together. Social policy also could never be created in vacuum because social life is an "on-going process" with roots in the past, efforts in the present and dreams about the future. Social policy in India is also faced with certain peculiar tasks such as "conservative surgery" and "skilful grafting", both of which are expressed in the phrase "selective assimilation". This phrase implies that (1) we could separate the good from the bad in the inherited culture, (2) conserve the good and discard the bad in the traditional society, (3) similarly graft the good in the modern industrial urban, democratic-socialist culture on the pruned traditional society, and (4) eschew the harmful features of the modern culture. The fulfilment of these tasks requires, in addition to oral homage to a wishful ideology, a great capacity among leaders of thought and action clearly to separate the good from the bad in one's own and reference cultures and implement them peacefully with a courage of conviction and boldness of purpose.

EVERY SOCIETY has a social policy of its own. This may be implicit or explicit. The social philosophy and the folklore and the institutions and folkways reflect everywhere the theory and practice of social policy. With the advances in science and technology, leading to systematic exploitation of physical resources for social purposes it is now common to make explicit statements of social

policy and implement them by means of planned actions and programmes of governmental and voluntary organisations. This is particularly the case with developing countries like India. A brief statement of India's social policy under the plans and the attempt at its implementation may therefore prove of wider interest.

Social policy in the traditional Indian society was in theory founded upon the fourfold goals of Dharma, Artha, Kama and Moksha, the twofold means of Varnashrama-dharma related to a multi-proportionate variation of Satva, Rajah and Tamah qualities among individuals which characterise human nature. Caste and the joint family system which embody in them the community responsibility for training and sustaining the individual in the arts and crafts, and in the rights and duties in group life, served the people in the predominantly agriculture-oriented Indian village communities to live in peace and harmony and to withstand the strains and shocks of normal day-to-day life and political and cultural invasions.

Modern society in India, as in every other country, is confronted with the problem of adapting itself to the ideological and material changes brought about by liberal-democratic and scientific-technological revolutions. In this adaptation, old ideas and institutions are becoming obsolete and dying or resilient and adapting. The leaders and people in this new situation are inspired in their thoughts and actions by the concepts of (1) liberty of the individual to develop his personality, (2) the equality of every person in religion, before law and for public offices and (3) the fraternity in endeavour through large-scale organisation towards mutual promotion of the well-being of all. If Dharma pervaded the traditional social order, justice underlies the modern social policy in India. Static stratification of society into castes is sought to be replaced by the dynamic mobility of individuals from one status group into another in the social order. Deep-rooted traditional structures are slowly substituted by rational organisation of social institutions. Faith in divine dispensation of the social maladies is modified by scientific assessment and approaches to resolve them. The modern society in India is directed towards becoming more secular, rational and individualistic than ever before. Indian social policy is moving in this direction. These goals and institutions, attitudes and endeavours, are very well reflected in our Constitution and in our Five Year Plans.

The spirit of the present-day social policy consists in the development of the personality of the individual by ensuring a rising standard of living, more even distribution of wealth, horizontal and vertical mobility of labour, provision of social services including work, health, education, housing, recreation, income security etc. The social policy is concerned with "*the building up, through effort and sacrifice widely shared, of a society, without caste, class or privilege which offers to every section of the community and to all parts of the country the fullest opportunity to grow and to contribute to the national well-being.*" The social objectives and economic development

programmes and *vice versa* are sought to be dovetailed into one another with emphasis upon regulation and prevention of new stresses consequent upon the economic development and social transformation.

TO IMPLEMENT the above policy, social legislation of a far-reaching nature was enacted after independence. On the negative side, the Constitution and subsequent legislation had abolished untouchability and several disabilities associated with caste and sex. The enactment of certain social security and social welfare laws is evidence of a positive promotive policy.

The three Five Year Plans have made the following allocations for the various types of social and welfare services:

(Rs in millions)

Plans	Educa- tion	Health	Housing	Wel- fare of Back- ward Classes	Social Welfare, Labour, Welfare	Rehabi- litation
First Plan	1660	1400	490	320	120	1630
Second Plan	3070	2740	1200	910	580	950
Third Plan	5600	3418	1420	1139	1490	400

The quantitative expansion in the number of laws, services, beneficiaries, institutions and training programmes\* in the several fields of social development make one complacently believe that the implementation of social policy and realisation of the socialist pattern of society are well taken care of. This is far from the case.

Social policy in India suffers from a lack of precise statement. Our social policy embodies a homage to certain concepts rather than reflect a set of principles suited to the socio-cultural conditions of the country. The logical implications and the costs of implementation are not thoroughly worked out and carefully adopted. To take but one example, the principles of equality and justice are noble ones but there is no appropriate machinery for the implementation of social reform legislation and social welfare services embodying these principles. The principle of evolving a casteless society is facing rough weather in so primary a matter as the abolition of untouchability notwithstanding the appointment of a special officer called the Commissioner for Scheduled Castes and Scheduled Tribes and his assistants at the State level.

The moneys voted for the uplift of scheduled castes suffer from maladies of maladministration. A new trend towards a vested interest in backwardness of caste is becoming prominent. Social security legislation suffers from an absence of comprehensiveness in concept, a lack of integration in organisation and a deficiency of vigour in administration. Little progress has been made in creating in the people a sense of joint or mutual responsibility and in pooling of risks and resources. At the same time even the investment upon social services like education and health to develop human resources shows a decline in percentage allocations from one Plan to another, from 22.75 in the First Plan to 19.60 in the Second and 18 in the Third.

\*For fuller details, please see article by the author entitled: "Review of Developments in Social Administration in India" Indian Journal of Public Administration, Vol ix, No. 3.

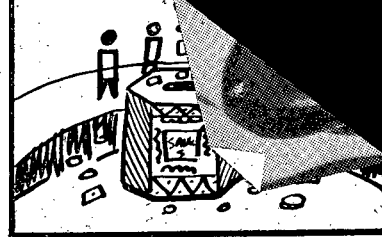
Further, these services also lack the support of proper legislation. Social welfare legislation and services and the arrangements to implement them at the Central, State and urban governmental levels leave much to be desired by way of rational organisation, administrative machinery, personnel training and co-ordinated action. Space does not permit an elaborate reference to example in these fields.

THE SOCIAL POLICY in India is committed to the realisation of a liberal, democratic, socialist society in an industrial-urban environment. But this is more a paper than a people's commitment because of the lack of a proper environment, organisation and leadership to remove the psychological blocks to development. There is considerable confusion about social policy. A feeling exists that economic development in underdeveloped societies leads to "turning societies upside down". A counter-feeling is that we can temper the process of change with the past classical values. Whatever are the arguments on both sides, the evils of poverty, disease, ignorance, squalor and misery which are rendered remediable by developments in science and technology should be remedied. Social policy in India is oriented to this task but it needs precise statement of priorities as to preventive and relief steps and firm enforcement thereof.

To be broadly identified with State policy in respect of liberty, equality, fraternity and justice, social reform, social services, social security and social welfare is not enough. Adequate supplementing by positive and promotive activities of infrastructural organisations like political parties, occupational or professional associations, voluntary welfare organisations and the folk mores of the bulk of the people is necessary. Only when a broad consensus is established in the State policies between the formal and informal agencies of implementation could the gulf between aspirations and achievements be narrowed. This consensus is conspicuous by its absence because the implications of social policy are not worked out and communicated. The implementation of our social policy suffers from an absence of earnestness in communication in a language that appeals to the common man. This leads to a failure in mobilisation of all but a few intellectuals at the top.

A great debate is going on whether through democratic processes the transformation of the agrarian-rural-status-culture into industrial-urban-contract-culture could be achieved in India. What was possible in other countries and cultures should be possible here also; but our difficulties arise on account of the ambivalences about the synthesis of the new with the old values, and the democratic processes to achieve this synthesis. The choice is made in favour of these; but the leadership should rise to meet the challenges of this type of change and work out the administrative tasks of implementing the policy with a greater degree of concreteness and thoroughness. The statement of goals and priorities in programmes and the plan of action, which constitute the subject matter of social policy, require a greater degree of concreteness in statement, adaptation to conditions and earnestness in implementation. Social policy also requires, as in economic and industrial policy, quinquennial review and re-appraisal by Parliament and the nation for enabling the people to educate and dedicate themselves.

# SUCCESS OF LABOUR POLICY



## *Wage Element in Cost of Production Kept Steady*

B. N. DATAR

THE First Five Year Plan was drawn up in the context of growing consciousness of importance of labour in the national economy. It gave certain assurances to labour in recognition of its rights, which had long been neglected. These assurances included raising of their living standards, share in the fruits of increase in productivity, guaranteed minimum wages, a measure of social security, improved housing facilities and working conditions, and so on. Much of what had been said in regard to labour policy in the First Plan has held good in the successive Plans. However, in the light of socialist pattern of society within which setting the Second and Third Plans were framed, suitable alterations in labour policy had to be made. This implied that while laying continued emphasis on speeding up the realisation of assurances given to labour, labour policy was to be oriented towards industrial democracy.

We had long realised that for the successful implementation of labour policy, the consent of employers and workers' organisation was essential. This explains the Government's constant endeavour to get these policies debated and settled at tripartite forums before they are implemented. Even the manner and extent of their implementation and the possible improvement in them could be and occasionally were the subjects of tripartite debates. To review the progress of implementation in the labour field in the current Plan is merely to assess the proceedings of the latest Tripartite Conference (July 1963).

The emphasis in the field of industrial relations has been on promotion of co-operation between labour and management through collective bargaining, voluntary arbitration and the 'codes' like the 'Code of Discipline in Industry' and the 'Code of Conduct'. The Industrial Truce Resolution adopted in a tripartite meeting in November 1962 laid emphasis on increasing production. Industrial production increased at the rate of 8 per cent in 1962-63 as compared with 6.5 per cent in 1961-62. In spite of recent setbacks in the number of man-days lost (the recent increase as compared to the period November 1962—March 1963), the policy pursued has generally worked well.

Two seminars were organised to acquaint employers and workers with the philosophy and technique of joint management councils as a part of 'workers' participation in management'. Evaluation studies on the working of such councils have shown that where the parties want to operate them in the spirit in which they accepted the obligation, the working of the councils has helped in improving industrial relations, securing stable labour

force and through it increasing productivity. There are also cases where the working has been poor. Special efforts will therefore be called for to ensure that labour-management co-operation becomes a normal feature of the industrial relations system.

The workers' education programme continued to make progress. By the end of January 1963, as many as 135 education officers, 2,589 worker-teachers and 46,166 workers received training under the scheme.

### Increasing Benefits

A SPECIAL feature of our wage policy, so far as it relates to the machinery for the settlement of wage demands, is the setting up of tripartite wage boards. Over the last six years about two-thirds of the industrial labour force have derived benefit or will be benefited by the wage board awards. The Bonus Commission, which is similarly constituted, will be laying down principles of bonus fixation for all workers.

The Employees' State Insurance Scheme at present covers 20 lakh workers as compared with 16.7 lakh workers at the beginning of the Plan. Preparatory steps have been completed to extend the scheme to Ahmedabad and Calcutta. Shortages of equipment, medical personnel and building materials are responsible for the slow progress made in the implementation of this scheme.

The Employees' Provident Fund Scheme has been extended to 23 additional industries with increase of membership from 29.3 lakh to 36.3 lakh. In four industries, the rate of contribution has been raised to 8 per cent. Similar enhancement has been effected in coal mines. By March 1966 membership of the Fund is likely to increase from 29.3 lakh in 1961 to about 40 lakh. The total funds to its credit will go up from Rs 274 crore to about Rs 700 crore. This scheme therefore can be said to have contributed substantially to the small savings raised during the Plan.

The Industrial Truce Resolution, 1962, has emphasised the need for increasing production. In order to achieve this objective, Emergency Production Committees have been set up at the Central and State level. About 590 enterprises have established unit level committees. These committees are dealing with problems of production, productivity, absenteeism, reduction of costs etc. Provision of adequate working conditions continues to be secured through a stricter enforcement of labour legislation. A committee has been constituted to draw up a scheme for the institution of National Safety Awards and giving suitable incentives to workers in establishments where absenteeism goes down.

*(Continued on page 59)*



# YOUNG MOTHER of HATIPATTA



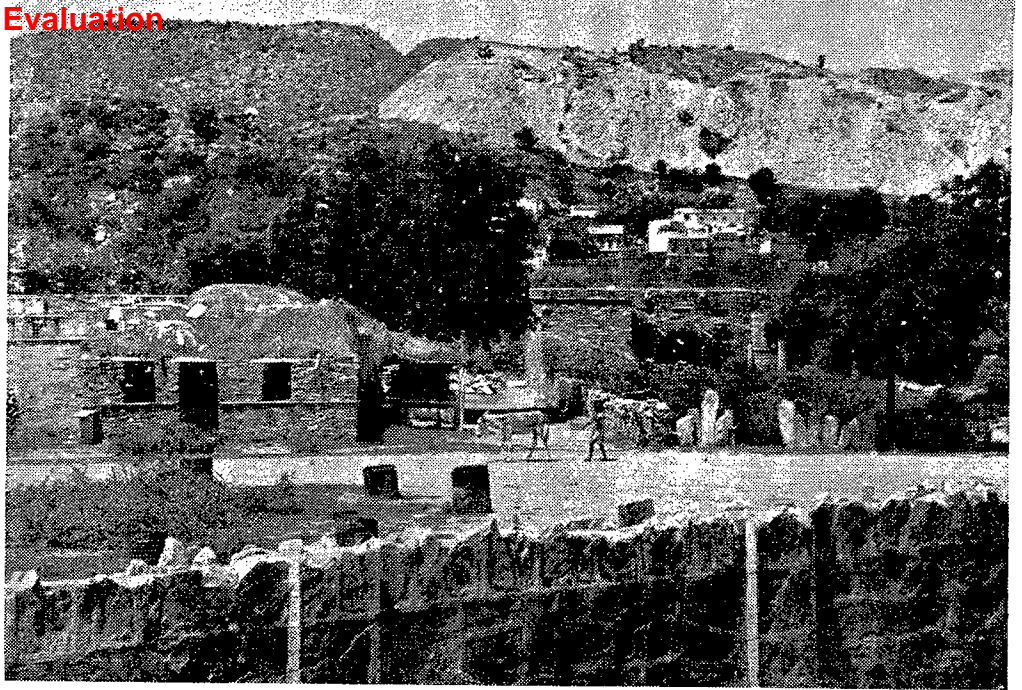
*Soni walked from her village Hatipatta to Srinagar. In her arms was Banwari who had spent sleepless nights from an abscess below his ear.*

*With Soni went her mother, Bori. The two waited in the verandah of the primary health centre as Banwari was taken to the dressing room—Bori with her fingers clasped in prayer and Soni sitting like a statue.*

*The considerate doctor came out to reassure them that all had gone well. Up went Bori's folded palms in gratitude.*



*It was true. Soni saw Banwari coming out. There was relief on her face, and amazement too, at the big bandage.*



AND HER MORNING

AT RURAL CLINIC

*A view of Srinagar.  
Its primary health  
centre serves 99  
villages.*

**Text by Kali Biswas**

**Pictures**

**by T.S.**

**Nagarajan**

**A** CHILD'S pain is the mother's pain. A cut, a prick, a little bruise or the harrowing hold of fever, when a child feels it, the mother feels it.

In Srinagar—not the city by the Jhelum in the famed Valley, but a small town far away amidst the green-backed Aravallis in Rajasthan—I saw to myself how the mothers of our countryside are turning more and more to the new medicine to relieve their children from pain.

I sat in the primary health centre



*Reunited with his mother, Banwari whimpered and Soni lovingly wiped his tears. See report above.*

of Srinagar, which is morning's ride from Ajmer, breathing the clean, cool air of the place, listening to the creaking and bells of bullock-carts and gazing at the throng of villagers who had come in search of the best gift a human being can have—health.

There were mothers and fathers and children. There was Gyandi, a matron who evidently had a large family; there was Aphu from Manpura; there was the gaunt Dhanna from Barliya whose daughter rode his shoulder.

A small family caught my attention. It consisted of three people whose names I found out. Bori, the wispy grandmother, had a face that had seen much suffering and skin that was wrinkled like the kernel of a walnut. The little boy, Banwari Lal, looked dazed from the pain of an abscess at the back of his head. Then there was Soni, the young mother who looked like a figure from the Rajasthani paintings come to life—graceful of limb and demure in movement.

Soni's eyes narrated a whole drama as she brought her son with hope and a little fear to the health centre, as she sat in suspense when the child was taken inside to have the boil opened, as she heard with relief the reassuring word the doctor put in and, finally, as she held, those same eyes brimful with gratitude, her little boy again in her hands.

**B**ORI and Soni and the boy were soon on their way back to Hatipatta from Srinagar—but other patients were there for Dr P.C. Mehra to deal with.

Dr Mehra is from Uttar Pradesh; he studied medicine at Calcutta, and he works in Rajasthan—a one-man example of how the skills from any one part of India are at the disposal of other parts of India.

He has been in Rajasthan for ten years and now heads the Srinagar centre which looks after the needs of



99 villages. The centre has a small staff of a dozen people. Besides the doctor there is a compounder, a midwife, a sanitary inspector, a social worker, a lady health visitor, a vaccinator besides helpers in the wards.

They are all overworked—as in everyone of the country's 3,000-odd such health centres. They have few comforts and little leisure. Not all of them even have staff quarters.

What makes them go on, day and night, is the sense of service that is at the core of the medical profession. It is to these people that rural India looks up in sickness and in suffering.



**TOP RIGHT :** Women and children wait at the door for their turn to see the doctor.

**ABOVE :** Dhanna, with his daughter.

**RIGHT :** The staff of the Srinagar centre, all except sanitary inspector and vaccinator. In the middle is Dr. Mehra.

# RESPONSIBILITY FOR FARM PRODUCTION

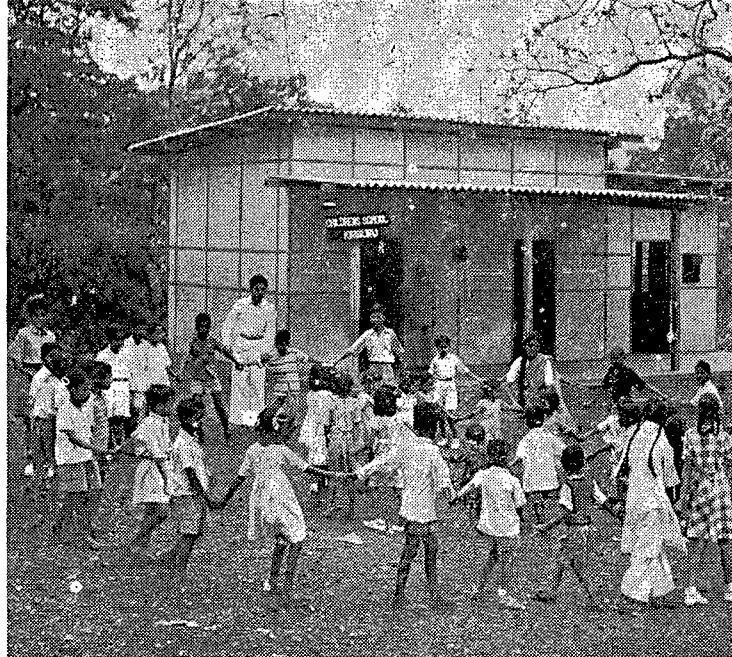
(Continued from page 34)

The total funds will be made up of grants from the Central Government, State Government and the local government units. This would mean that a substantial share of the present budget of the State Department of Agriculture will be placed at the disposal of the districts. Once total allocations for a district are made by the State, it should be left to the officers at the district and to the extent necessary at the block level to spend the allocations conforming to financial rules framed for operation by the local bodies, namely district councils and block committees. The Nalagarh Committee has already made valuable suggestions to liberalise financial rules to execute agricultural development plans expeditiously.

The block committees and district councils should be represented in the process of the selection of the agriculture staff for their respective jurisdictions. Needless to emphasise that for a technically decentralised agricultural development programme, the staff employed at the district and the block level should have a high technical ability received through training in first-rate agricultural institutions with emoluments high enough to attract talent. At each level the units and officers should be given *clearly defined, managerial and inescapable responsibility with full authority to discharge that responsibility*. They should be judged by their initiative, their ability to push through the programme, and by their concrete accomplishments in increasing agricultural production. Appraisal of their work should be done by councils consisting of representatives of block and district committees, State Department of Agriculture, and the State agricultural institution with the District Judge as chairman. Such councils should also have the responsibility for selection of the staff for the district unit of agriculture service and appointments made by the concerned local governing bodies. Services of those who do not measure up to the challenge should be terminated on the recommendation of the councils named above.

With the agricultural service decentralised at the district level, the State Directorate of Agriculture will concentrate its energies on regional and State-level research. It will also have capable technical officers on whom the District Agricultural Officers could rely for assistance in the solution of their specific problems. Further, the Directorate would ensure the needed agricultural supplies on a State-wide basis and enforce laws to regulate marketing, seed certification etc. The Directorate would also develop organic relationship with the universities and State colleges of agriculture to evolve an integrated programme of teaching, training, research and extension. Much of the Directorate will consist of only senior officers who could form a part of the All India Agricultural Service.

Only when such integration between research and extension is developed and the district is made a consolidated unit for agricultural development with its staff held responsible for showing positive results, can the present stagnation in agricultural development end.



PRIMARY school in one of the new townships that have sprung up under the impact of industrialisation—Kiriburu, the mining town in Orissa

## SOCIAL POLICY

(Continued from page 50)

Commission or being Chairman of the Central Social Welfare Board. This is an illustration of what voluntary social agencies could do. We all know that voluntary agencies play a very important part in the social life of developed countries like the United States. In our country, too, voluntary agencies played an important part in the pre-Independence days. I am not at all sure whether after Independence voluntary agencies in our country are occupying the kind of dominant place that they should occupy in the context of the developing economy. Anyway one of the problems of social welfare in a developing economy is how to stimulate the formation of voluntary agencies, how to get them to play a much more important role in social welfare than they are doing today, how to see to it that the voluntary organisations do not all the time look to Government for grants, how to ensure their effectiveness and how to get workers and personnel for them.

I come to the third of the approaches. This is something where all of us have a responsibility whether we are in the academic profession or in politics or in any other profession—and that is the subject of social conscience. Social conscience is extremely important in the maintenance of social values. But somehow, in spite of the efforts at national development, social conscience in this country has been undergoing a certain ossification. Therefore, I was not entirely unhappy when in Parliament there was a debate on the average income of the people, whether it was three annas or seven annas or fifteen annas. Irrespective of the statistics involved, what was made conspicuously clear, almost brutally clear, was the fact of mass poverty in India. The awakening of social conscience is the most important pre-condition of ensuring the maintenance of the kind of values which we require and without which it would be very difficult to deal with the problem of social welfare in a developing economy.



**O**N A SUMMER-SCENTED EVENING long ago, an exquisite princess is being married to a young Marwar prince. The eternal vows are on their lips when, suddenly, a blood-stained messenger stumbles in: "My Prince! Make haste, the enemy..." The young prince dons armour and rides away.

He is killed the same evening. The princess hastens to the battlefield and looks at her dead prince. "Let music

commence, read the sacred texts," she commands, "for I shall now complete the marriage." She mounts the pyre and sits next to her prince. As the air trembles with the chant of Vedic hymns and the weave of gay lutes, the flames lick away...

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# IMPLEMENTATION

## A Conceptual Framework

(Continued from page 2)

tions. Disciplining may not have a necessarily disagreeable connotation. An effective supervisor should apply rewards just as often as sanctions, if not more often. The important thing is to institute a schedule of rewards and sanctions, make it known to all concerned, and then administer it in an objective manner. Disciplining is essentially a constructive activity, and it may be said to be successful only if it motivates subordinates towards constructive compliance.

### Controlling

A control system may be viewed as the mechanism which seeks to assure that actual progress of work in an enterprise is being accomplished in accordance with the established standards.

Conceptually, devising a control system is a rather simple task. First, it is necessary to identify meaningful control units. They could comprise the end products in a particular operation or selected items may be picked. Then the need is to isolate the critical aspects of the control units which are sought to be controlled i.e., quantity, time use, quality, public acceptance, etc. Then, standards need to be established for each one of these aspects. And finally a reporting mechanism needs to be worked out, in order to measure the actual performance as against the established standards taking the control units as the basis.

The initial establishment of the standards is a difficult task. But fortunately they do not have to be too precise right from the start. Experience should provide the needed information to refine them over time.

The devising of the reporting mechanism is quite tricky. Generally there should be separate, but brief and concise, reports for each of the critical aspects showing actual performance as against standards. Then they should be combined in an over-all performance report, if possible, in chart form giving a visual rather than narrative presentation. Many formats may need to be tried for such control reports. Indeed, there is generally always room for improvement. But with resourcefulness and goodwill it should not be too difficult to devise a meaningful control system right from the start.

To summarise, the following may be re-emphasised. Programming must have money, materials (including machines) and personnel requirements fully spelled out and tied to the sequential progress of output schedules. Only then would it be useful as a basis for actuating and control. Actuating means that the supervisor must effectively communicate with his subordinates, so that they not only understand what is expected of them but accept it, motivate them so that they are inspired to accomplish it, and be ready with rewards and sanc-

tions so as to insure their constructive compliance. Controlling involves identifying the control units, isolating their critical aspect, establishing the standards for the critical aspects, and devising a reporting mechanism which would measure actual performance as against the standards.

The variances thrown up by the control mechanism would form the basis for a reappraisal of the original standards and the process of implementation. This reappraisal becomes the feed-back for the modification, if necessary, of the total administrative process.

## LABOUR POLICY

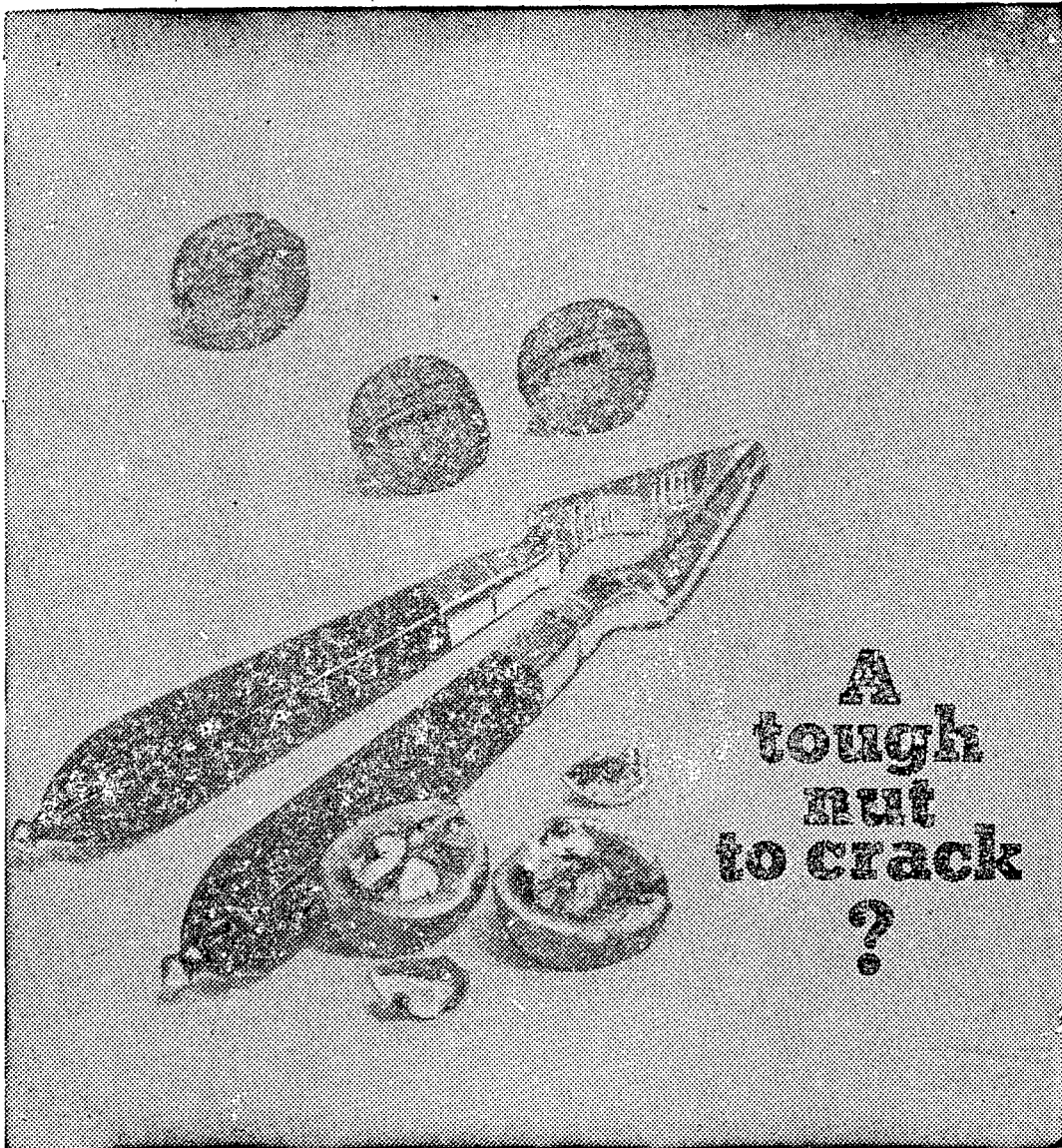
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AGAINST a Plan target of opening 151 industrial training institutes, 144 institutes have been sanctioned. The number of additional seats sanctioned is 52,664 against a Plan target of 57,848 seats. Training of craft instructors, which is vital to the success of craftsmen training programme, has perhaps been slow. To meet the requirements of craftsmen owing to the Emergency, an accelerated training programme has been drawn up to train personnel already enrolled for defence. Although performance in the field of expansion of training facilities, by and large, has been satisfactory, a number of problems like shortage of equipment, instructional staff, unutilised capacity and inability of backward classes to fully utilise training opportunities offered to them require close examination. The quality of trainees coming out of these institutions has also to be improved.

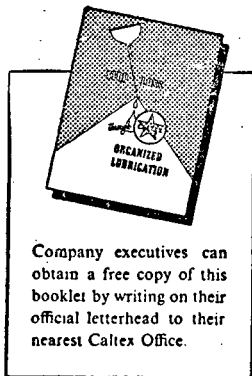
### Satisfactory Progress

The Apprentices Act, 1961, makes it obligatory on industry to admit a specified number of trainees in approved trades. About 5,200 apprentices on a full-time and short-time basis have been engaged under the Act so far against a Plan target of 10,000. Against a Plan target of opening 98 exchanges, 78 exchanges have been sanctioned. Other schemes continue to be implemented according to the phased programme. The scheme of the Central Institute for Labour Research is however making a slow progress.

If therefore we look to the Labour Plan in its two parts, programmes and policy, we find that in both areas progress is satisfactory. The physical targets in terms of workers to be educated, production committees to be set up, training institutions to be built up etc, will be achieved even at the present pace of implementation. The labour policy pursued so far has the unanimous approval of employers' and workers' organisations. Wage element in the cost of production has been kept steady; in fact in the last few years it is showing a fall. The demands for an increase in real wage have been there but they are not such as to affect adversely the rate of industrial production by frequent work stoppages. With an adequate supply of industrial raw materials the performance of industry could substantially improve with benefit to all and in such improvement labour will not fail to play its role.



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**SHORTAGE OF TECHNICAL PERSONNEL SIDE BY SIDE  
WITH INCREASE OF PEOPLE SEEKING UNSKILLED WORK**

# The Prospects for Employment

M. L. GUPTA

**T**HE back-log of unemployment at the beginning of the Third Plan was estimated at about 9 million. The growth of labour force during the Third Plan period was reckoned to be of the order of 17 million. As against these requirements, the Plan aimed at 'holding the unemployment line' and placed the actual employment potential at 14 million—10.5 million in non-agricultural sectors and 3.5 million in agriculture and allied activities.

There is a dearth of data in essential respects which makes it difficult to assess the employment performance of the Third Plan now when it is half way through. Employment Market Information, which has been developed during the last few years, now constitutes an important source of data on employment in the organised sectors of the economy. Two hundred and twenty-three Employment Market Areas are known to have been set up by March 1963. When the geographical coverage of the EMI programme is completed, it should be possible to build up directly a picture of additional employment generated in these sectors. At present, on the basis of output-employment ratios and outlay-employment norms as applied respectively to the physical targets so far achieved and the Plan expenditure incurred, it is estimated that the additional employment generated during the first two years of the Plan and likely to be generated by the end of the third year (1963-64) would be about 4.9 million out of 10.5 million non-agricultural employment target for the Plan period as a whole, or 40 to 45 per cent of the total five-year target.

In the agricultural sector, the method of estimating additional employment has been in terms of requirements of labour for every acre of net additional irrigated area or one acre of net additional area benefited by soil conservation measures and the like. Following this approach, the additional employment in the agricultural sector works out at 1.6 million during the first three years (slightly less than half) out of the five-year target of 3.5 million.

## *Creating Jobs in the Countryside*

A SPECIAL FEATURE of the Third Plan in the realm of employment has been launching of the Rural Works Programme. The Plan envisaged tentatively that the programme as a whole might entail an outlay of Rs 150 crore by 1965-66 and provide employment to about 2.5 million persons during the slack agricultural seasons by then—last year of the Plan. Outlay on the programme in 176 projects which functioned effectively at the end of March 1963 was of the order of about Rs. 1.5 crore

resulting in the creation of additional employment to the extent of a little over 76 lakh man-days.

At this rate of development, it is estimated that possible achievement against the Third Plan tentative targets might be about one-fourth in terms of expenditure and one-third in terms of additional employment.

Another measure adopted recently under the Third Plan is the introduction of Rural Industries Projects having the objective of bringing about a co-operative agro-industrial economy involving all-round development and expanding non-agricultural employment. Forty-five areas were selected in various parts of the country in 1962 for trying out the projects on a pilot basis. Survey work in most of the areas has been completed and the survey reports are being examined in the Planning Commission. With the starting of actual execution of the projects in the near future, rural industrialisation will get a new impetus. The projects are likely to have a wholesome effect on the employment situation, especially since they are intended to be integrated in the Rural Works Programme.

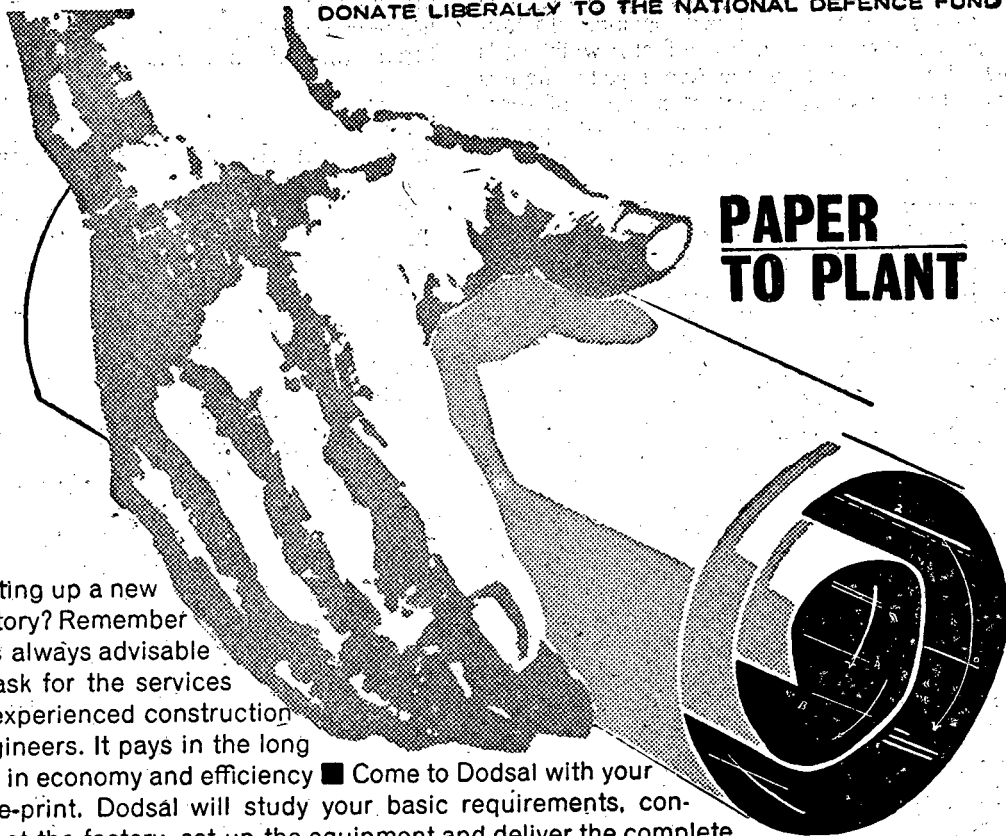
THE SHORTFALL IN creation of additional employment opportunities seems to be reflected by the growing size of the live registers of employment exchanges in the recent past. In view of the existence of a seasonal element the live register data are analysed below as at the end of March of every year from the beginning of the Third Plan. Since the latest live register figures available now are for June 1963, these data are analysed also in terms of the position as at the end of June every year during this period.

Month and year	Number of exchanges	Number of applicants on the live register	Number of applicants on identical exchanges functioning at the beginning of the Third Plan
(Figures in lakhs)			
March 1961	307	15.61	15.61
March 1962	334	18.54	18.32
March 1963	349	24.83	24.16
June 1961	312	17.55	17.52
June 1962	342	20.63	20.23
June 1963	350	26.85	26.06

It would be seen in the table above that the number of applicants on the live registers has been increasing considerably since March 1961 and more especially during 1962-63. Part of the increase may be associated with the increasing number of exchanges since the Plan began. In order to arrive at a comparable base over this period, *first* the live register figures of the new exchanges opened after March 1961 have been separated from those of the other exchanges already functioning, and *secondly* an adjustment has been made for transfer of applicants' cards from the old exchanges to the new ones. Thus the adjusted figures given in the last column

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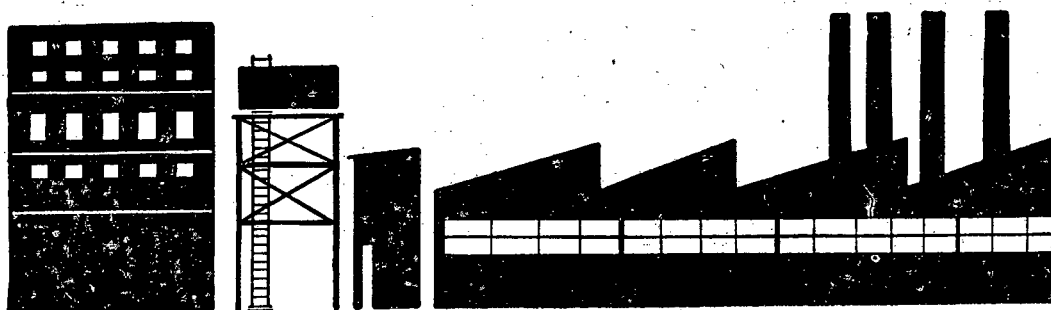
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of the table above relate to the 307 exchanges existing at the start of the Third Plan.

The rate of increase during 1962-63 (whether we take the period March to March or June to June) works out at almost double of that experienced during 1961-62. Even in the interpretation of these adjusted figures, there are important limitations. In the first place, it is well-known that all the unemployed persons do not register themselves at the exchanges—a factor which calls for an upward adjustment in the live register figures for estimating total unemployment at a point of time. Secondly, many applicants already employed register themselves at the exchanges only to improve their employment prospects. This factor calls for a downward adjustment in the exchange figures when total unemployment is to be estimated. Thirdly, the Compulsory Notification of Vacancies Act, 1959, has been operating for the last three years. During March 1961-March 1963, the vacancies notified to the exchanges increased from 5.7 lakh to 8.3 lakh and the placements effected from 3.2 lakh to 4.8 lakh. This trend is continuing as the June 1963 figures (not given for want of space) show. The increasing number of vacancies notified denote wider use of the exchanges by the employers in the public and private sectors. The increase in placements effected indicates better success of the exchange machinery in securing jobs to the applicants. These factors thus generate expectation among those who register and there is a rush of registration by other applicants who follow. Even allowing for this factor, the rise in the live register figures has to be viewed with concern and some deterioration in the employment situation is evident from the exchange statistics.

### *The Educated Unemployed*

THE MAGNITUDE OF unemployed among the educated persons (matriculates and above) has been sizable for some time. Their number on the live register increased from 4.9 lakh at the beginning of the Third Plan to 7.8 lakh at the end of June 1963. In this group, the matriculates alone account for about four-fifths of the

total followed by intermediates accounting for about one-tenth and graduates accounting for the rest.

Along with the significant increase in the number of educated registered with the exchanges, manpower shortages have been experienced for certain categories of professional and technical personnel such as engineers, draughtsmen, chemists, pharmacists, surgeons, physicians, teachers and certain categories of craftsmen including fitters, turners, tool makers, electricians and the like.

### *Impact of Emergency*

The national emergency has had its own impact on the development programmes under the Third Plan and consequently on the employment situation in the recent past. A recent assessment of the Third Plan contents showed that the bulk of the Plan was essential from the defence angle also. However, a lowering of priority to social services (the employment content of which is relatively large) and the severe stringency in the wake of the Emergency tend to have repercussions on the employment situation. On the other hand, the step-up of recruitment of personnel to the defence forces, acceleration of defence production and related factors have resulted in some additional employment which may not be presented here quantitatively.

From the foregoing analysis, it should not be inferred that the original employment targets of the Third Plan will not be reached as much will depend upon the progress made during the rest of the Plan period in the Plan implementation. From the very recent mid-term appraisal of the Plan in respect of different sectors of the economy, it appears that there may be shortfalls in the implementation of quite a few important programmes of development. On the other hand, the nation's determination to further strengthen the country's armed forces already initiated under the Emergency may create employment opportunities for a large number of persons. It is difficult to make a forecast at this stage as to the net effect of these two opposite trends in the sphere of employment.

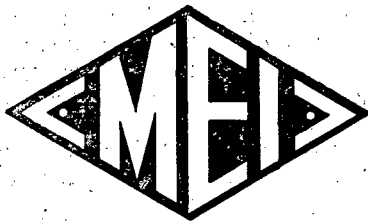
## Approach to Administrative Reform

*(Continued from page 4)*

the Panchayati Raj bodies. To this extent, it is the responsibility of the higher branches of administration, specially at the State level, to provide the necessary guidance as well as protection.

STATES are in some ways the more important partner in the effort to raise levels of living, to develop human resources and to achieve the maximum benefits from the new skills and capacities which are being established throughout the country under the Five Year Plans. Their responsibilities have grown and no one will question their very considerable achievements. But the tasks now in hand and immediately ahead are far bigger than is generally realised. The administrative apparatus and methods and the machinery for technical and econo-

mic planning in most States must be urgently strengthened if the burdens of development are to be fully sustained. What has to be done is in itself exceedingly difficult, whether we think of agriculture, irrigation, power, social services, employment or, for that matter, any other aspect of national life. In each case, these tasks call for an enormous amount of integration between different agencies and much greater comprehension of the objectives and, at the same time, there must be scope for far more initiative and drive and better quality in performance. Along with these two conditions, a third condition has to be met, namely, achieving results in the context of a functioning democracy and continuous response to the public. On a broad view it can be said that the essential elements for high levels of achievement already exist. With greater concentration by the Centre and the States alike upon administrative and operational problems, it should be possible so to strengthen the apparatus and methods of Plan implementation and administration as to realise the benefits of development in much greater measure than has been possible so far.



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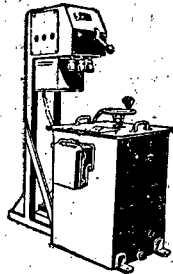
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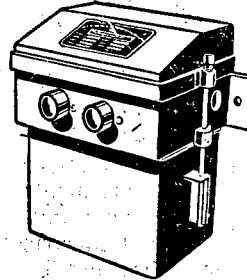
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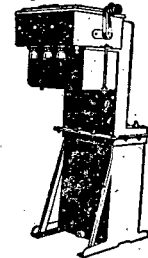
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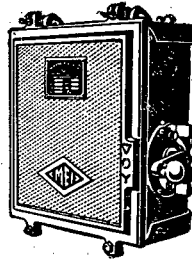
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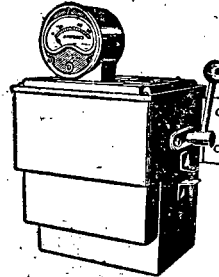
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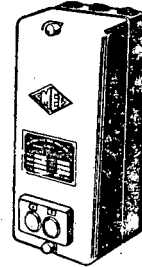
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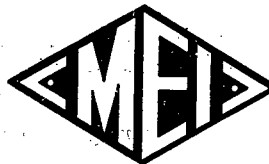
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# COST REDUCTION

(Continued from page 48)

judge *ex-ante* whether they are suited to be export industries. The course of their historical performance alone will indicate their place in the domestic consumption or export sector. Meanwhile, for purposes of export, the approach has to be unitwise rather than industrywise. In each industry, there may be units which are in a position to export their products competitively. A study of the costs of these units relatively to those of others should be useful as indicative of the export problems or generally the efficiency factors of the industry. Unitwise concentration on exports may raise the paradox that efficient units will be penalised while less efficient units will reap the benefit of high domestic prices but the paradox can be met by suitable arrangements.

If the need for control of costs under planning is conceded, it is necessary to think of a suitable organisation for the purpose. It will not make much difference to the character of the organisation whether cost investigations undertaken are regular and periodic or merely *ad hoc* as indicated by actual circumstances. The choice of either alternative will affect only the size of the organisation. The functions to which the organisation must conform proceed from the conclusions of cost reduction studies. The positive conclusions of cost reduction studies should cover (a) general policies regarding size, location, technological preconditions, etc.; (b) cases for expansion or amalgamation; (c) identification of units fit only for liquidation; and (d) correction of individual deficiencies.

This would be a very difficult and ambitious programme for any organisation. General policies emerging from cost studies do not call for any special remarks. The need for expansion or amalgamation of existing units arises from the basic conditions of planning. In case the number of units in an industry is small—and this is the case with most of our new industries—economies would be well achieved by expansion wherever necessary. But in those cases where the number is sufficiently large and further increase in total capacity is not possible, amalgamations offer the best means to achieve economies of size. Sugar manufacture is probably the best example of an industry which will benefit by discriminating amalgamations.

The existence of units which are not likely to attain viability but are a mere drag on the progress of an industry presents a still more difficult problem. Such conditions exist in old, established industries like cotton textiles. It is a mere waste of resources to allow such

units to drag on indefinitely and become mere obstacles to the expansion of progressive units or the establishment of new units. The liquidation of such units and reallocation of their usable equipment must involve, however, difficult procedures. Finally, the correction of individual deficiencies revealed in the course of cost investigations is primarily the concern of the unit concerned but in the context of planning it must attract some vigilance from the public authorities.

The foregoing description of the conclusions likely to emerge from cost reduction studies would indicate an Industrial Vigilance and Reconstruction Corporation of which cost reduction studies would be the core and amalgamation, liquidation, allocation or disposal of discarded assets, etc., the main executive activities. The vast powers and technical expertness implied in such decisions would make one hesitate in recommending a corporation or office of this kind. Yet it is difficult to avoid the conclusion that planning must necessarily involve all such responsibilities for the planning authority.

One important point is still left over. The responsibility for level of costs does not rest today entirely or even predominantly with any single agency. The Government, i.e., the planning authority, influences cost levels firstly by its policies regarding new units and the industry generally; secondly, by its efficiency in regard to public sector industries which supply the raw materials or fabricated goods to the private sector; and, thirdly, by its decisions regarding price-fixation of commodities which fall under price-control and which are the raw materials of other industries.

Outside the area falling under Government regulation, the private business man has to strive to reduce his costs and maintain or improve his quality to the utmost that he can. It is clear that responsibility for costs is today very much divided and divided responsibility always incurs the danger that the agencies concerned will merely frustrate each other or one agency will tend to reduce the other to a state of helplessness. Since business enterprise is expected to work and live, there is the danger that it will seek to survive by adoption of devious means like sabotage of quality, illicit gains outside the area of control, etc. It is, therefore, a most urgent need to explore the means of widening the freedom of honest enterprise to use and demonstrate its skill and potentialities. The first step towards this end should be stern and ruthless action against the dilatory and procrastinating working of the administrative machinery—particularly that part of it connected with economic matters. Democratic administration does not mean encouragement to intriguing idlers and unpatriotic mercenaries.

## FORTNIGHT IN YOJANA BHAVAN

**MR ASOKA MEHTA** has been appointed Deputy Chairman of the Planning Commission. The Prime Minister introduced him to the Commission on September 23. Until such time as Mr Mehta returns from the U.N. General Assembly session being held in New York, Mr C.M. Trivedi, Member (Natural Resources), will act as Deputy Chairman. He took over on September 26.

Mr. G.L. Nanda, Minister for Home Affairs, relinquished his temporary charge as Minister of Planning. Mr. B.R. Bhagat relinquished the office of Deputy Minister of Finance and took over as Minister of Planning on September 24. Mr. Nanda will remain a Member of the Commission.

Mr. B.P. Patel, Adviser, Programme Administration, and Mr C.R. Seshadri, Director, Agriculture, have left the Planning Commission.

Professor M.S. Thacker, Member (Education), has been nominated Chairman of the Board of Governors, Indian Institute of Technology, Delhi.

Mr. Narayan Prasad, Director, Asian Institute for Economic Development and Planning, Bangkok, came to Yojana Bhavan on September 27 and met Dr. K.S. Krishnaswamy, Chief, Economic Growth and Policy Division.

Mr. Kuldip Nayar has taken over as Information Officer, Planning Commission.



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"Madras, Kerala, Mysore..." interrupted Fison.

"Maharashtra, Gujerat," cried Ralli,  
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# YOJANA

No - 21



## ABOUT YOJANA

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

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

The Advisory Board of the journal consists of the Minister of Information and Broadcasting (chairman), Mr. S. K. Dey, Dr. Ram Subhag Singh, Mr. T. N. Singh, Mr. Shriman Narayan, Mr. C. R. Pattabhi Raman, Mr. Akshaykumar Jain, Mr. Nawab Singh and Mr. T.P. Singh.

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COVER: Interior view of the new factory of the Hindustan Machine Tools at Pinjore, Punjab, which has gone into production. Picture by KUNDAN LAL

(See page 26)

## CHIT FUNDS DON'T HELP

MAN's habit of borrowing is as old as himself. In fact the human species is composed of two distinct classes—the lender and the lendee. Man borrows not only in his individual capacity but also in his collective capacity e.g., State borrowing. Again, borrowing is of two kinds: (1) for productive wants—to start a new business, to improve the existing one, to open a new factory, and (2) for unproductive wants—to buy a radio, a sofa set, a safe, furniture, etc. Though productive borrowing is healthy in character, unproductive borrowing brings in its wake miseries. The example is not far to seek. This borrowing habit for unproductive wants, such as religious ceremonies, marriages and customs, have reduced our once flourishing peasantry to serfdom. Once the total debt was estimated to be of the order of Rs. 4,800 crore! The *sahukars*, landlords and Jagirdars used to suck the blood of our peasants.

Time has wrought many changes. Religion is losing its hold and old customs are yielding place to new. We are trying to spend less on marriages. But at the same time we are making our daily life costlier. We are becoming socialist in outlook but individualist in our behaviour. To raise our standards we resort to borrowing. But we forget that if we cannot cut our coat according to the cloth at present we shall not be able to measure our future wants and also pay our debts. The result is that when time for repayment of the loan comes we find ourselves surrounded by new wants and previous debts. This in most cases results either in litigation or new debts.

Chit funds pay us only 60 rupees for our 100 rupees. This means that we buy goods worth Rs. 60 for Rs. 100. This is the most unprofitable kind of borrowing; nay, it is ruinous.

New Delhi.

D.R. BHATIA

## Over to you

### Eradicating Corruption

THAT corruption exists both in its real and imaginary forms is clear from the recent speeches of our leaders. Mr. Shriman Narayan has correctly stated (*Yojana* September), "Too much talk about corruption without suggesting definite steps in that direction leads to an unhealthy atmosphere of frustration and bitterness which helps no one."

Corruption cannot be eradicated without a systematic attack being made on its allies such as bribery, favouritism, confusion, delay, indiscipline, leniency, irregularity, wrong prejudice, cheap popularity, false promise, boast and bluff. For example, confusion may be created to provide a cover for corruption; delay may be devised to break lawful and moral resistance; wrong prejudices may be propagated against an upright man; false promise may be given to delay a timely and correct action; cheap popularity may be acquired to cover lack of firmness of character; and indiscipline may be fostered to create confusion.

According to an analysis of what has recently appeared in the press the following steps might be adopted for eradication of corruption and its allies:

- All Government departments and sections may be asked to show concrete results of their performances. A group of productivity experts can be deputed to check their performances and give them timely advice.
- All responsible citizens should undertake to train at least five persons per year in their line of vocation or work and also give lessons on morality to produce a trusted force of

personnel capable of taking over key positions whenever necessary.

The step (a) will no doubt be irksome to those who have never worked for results, but after a few months of exerting pressure on them an interest will be created and the work will call for greater abilities and more concentration. In fact it is the lack of emphasis on the practical ability to produce sound results which is at the bottom of all social evils in India.

Bhilai

R.M. AGARWALA

### Interesting Reading

QUITE a few articles in *Yojana* of September 29 are interesting reading.

The fine example of self-help in Thanjavur is inspiring. Mr. M.K. Pardhy's article on successful joint farming in the Dhulia district is fine fare for common people. It seems, besides enlightened self-interest and capacity in the leaders of co-operative movement in Maharashtra, there is also idealism based on patriotism. This noble trait in the people of the State should mean much faster progress in the years to come.

Ajmer is lucky to have Dr. G.S. Mahanot as District Animal Husbandry Officer. It is his enthusiasm combined with sound practical knowledge of the subject together with fine salesmanship so uncommon in officials that are responsible for popularising poultry farming in the area.

Simbhaoli (Meerut)

SAJJAN SINGH

### Not Mobile Enough

I saw your editorial asking readers how to improve *Yojana*.

My suggestions are: Be bolder. Move about more. And make some arrangements by which *Yojana* can be seen at and bought from the news-shops.

Jaipur

M. R. SHARMA

# PLANNING IN A FEDERAL SET-UP

DEMOCRACY is government by discussion, in words made famous by Professor Ernest Barker. In a federal democracy this discussion is not only among the people themselves and their political parties, and between the people and the Government, but also among various Governments that function within a country. For in a federal structure the Governments are not arranged hierarchically. There is no line of command, but decisions are arrived at by discussion, agreement and compromise. Our Constitution is predominantly federal in character. Although the Government of India is referred to popularly as the 'Central Government' the Constitution recognises it only as the Union Government. There is a demarcation between the functions of the Union Government and those of the State Governments, although there is also a Concurrent List.

It is wrong to think of the Constitution as only the legal framework of our country. The Constitution is important as much for its spirit as the body it inhabits. Just as in a well-knit family the mutual relations are more than the merely legal and are kindled by affection and love, in our national life, too, the relations between the States and the Union are more than the formal. They reflect the kinships and ideals owned during the national struggle. The Indian Union, as one commentator has rightly pointed out, is the creation of the people of India and not of constituent States. That is why it is a perpetual and indissoluble Union, with no right of secession for the States.

Why then, it might be asked, should it not have been a unitary State? The founding fathers of our Republic went into this question deeply and saw that a country of our size, history and diversity, would do better under a federal system than under a unitary one. For federalism would make the blessings of self-government more real and direct, and would, while permitting the personality of the parts to develop to the full, ensure at the same time the unity and strength of the whole. As we know, the Constitution does, in times of Emergency, give overriding powers to the Union Government. In normal times, however, the federal structure prevails, requiring continuous consultation and discussion between Delhi and each State capital.

The Prime Minister recently referred to the great complexity of planning in a federal set-up. This truth needs to be widely understood. Planning is a means to achieving the hopes and promises embodied in the Constitution. Its function is to usher in speedily a social

order which is marked by social, political and economic justice and which guarantees (1) adequate means of livelihood for all, (2) social direction over resources and (3) prevention of concentration of wealth.

This goal is to be achieved throughout India and the agency for undertaking this task is the Union and State Governments. Economic and social planning, it must be borne in mind, figures as item 20 on the Concurrent List. The Planning Commission itself is an advisory body giving advice to the Union Government as well as the State Governments. The advice it gives is the result of close and continuous discussion with every interest involved in development. At every stage of planning, from the formation of working groups to the formulation of the final Report on a five-year plan, the Planning Commission proceeds after detailed consultations with the two sets of Governments. In determining priorities and making allocations among regions and sectors this consultation is specially ticklish. It is the Planning Commission which attempts reconciliations in a manner satisfactory to all competing interests. And all this has to be done within the four corners of economic desirability and technical soundness. Thus the Planning Commission combines in itself both detachment and involvement. Although there is ministerial representation in its membership, the Planning Commission is "essentially a non-political advisory body" and a "staff agency". It is neither a pure research institute nor out of touch with the political, economic and administrative problems.

The recommendations of the Planning Commission are further gone into by a higher-level advisory body, the National Development Council, which consists of the State Chief Ministers and the Planning Commission members, with Union Ministers attending the sessions. They then go to the Union Cabinet and the State Governments who take the final decisions, subject to the approval of Parliament and the State legislatures. The actual responsibility for the Plans is that of these Governments. "The Planning Commission", as Mr V.T. Krishnamachari has said, "may advise but cannot claim that its advice should be accepted." It has no sanctions of its own, to quote another authority. But it remains the major co-ordinator of all policies and plans bearing on economic and social life.

Federalism implies that power is shared by two sets of government. In any federal structure conflicts and clashes of interest are bound to occur despite the commonly-cherished objectives. Each federal country has to evolve its own institutions to resolve and reconcile such executive differences. The Planning Commission, as the Prime Minister rightly pointed out, is the best organisation we have for doing it.

# BETTER USE OF MINERAL

WHENEVER the development of mineral resources comes under discussion, attention is repeatedly directed to the necessity for detailed study of the distribution, quality, quantity and peculiarities of the deposits of the particular minerals concerned. Such studies and assessment concern all minerals which are potentially useful, whether for local consumption or for export. The more important minerals which have been under study for some years are ores of iron, manganese, chrome, gold, copper, lead-zinc and aluminium amongst metalliferous minerals and limestone, dolomite, barite, pyrites, clays, etc. among industrial minerals. Special effort was made by the Geological Survey of India (G.S.I.) during the First Plan to train a number of geological officers in modern techniques of mineral investigation such as detailed structural studies and mapping at the surface and underground, with the help of geologists of the U.S. Geological Survey. During the Second Plan, the original trainees were encouraged to extend their work to other deposits such as those of Kolar Gold Fields and to train some younger geologists placed under their care. In recent years, the Economic Geology Division of the G.S.I. appears to have been disbanded and its personnel scattered. As a result, the officers who were given special training in mineral investigation are trying to do other work for which they were not specially trained. This would be readily apparent if an examination is made of the present disposition of these officers and the type of work they are now doing.

*Iron Ore:* Iron ore deposits of Singhbhum in Bihar and the adjoining districts of Bonai, Keonjhar and Mayurbhanj were mapped some 25 to 30 years ago but no revision has been made in recent years in spite of the fact that a very large staff is now available numerous enough to undertake all types of essential work. Only a few deposits which were to be exploited as suppliers of raw material for the Bhilai, Rourkela and Durgapur steel plants have been investigated by drilling. A number of other deposits still remain to be assessed according to modern standards. Though such deposits are not likely to be exploited for several years to come, an overall assessment of all resources in iron ore must be carried out, as such assessment will lead to a proper and balanced development of the most useful deposits in future.

## S. T. C. and Iron Ore Trade

A number of iron ore deposits are being worked in various areas for supplying ores to the overseas markets through the State Trading Corporation. The coming in of the S.T.C. into the business of mineral exports in general and iron ore export in particular has not necessarily been in the best interests of planned development of iron ore or other minerals. It is understood that the S.T.C. has contracts with foreign buyers for the supply of 2 to 4 million tons of iron ore or more per annum, the agreed standard grade for export being 65 per cent iron with less than 5 per cent silica and with low phosphorus and sulphur. In view of the fact that there has been talk about exporting 5 million tons or more per annum, it is doubtful if, in spite of our excellent

*More Sensible  
Balance Must Be  
Struck between  
Internal Demands  
and Exports*

M. S. KRISHNAN

*Director, National Geophysical Research Institute, Hyderabad*

resources in high grade ore, we can maintain such high quality for any great length of time without seriously affecting our own needs for the future.

There was a time, less than 40 years ago, when the United States thought that it had abundant and even inexhaustible resources of high grade ore in the Lake Superior region, but even before the end of the Second World War that country had vigorously to adopt various processes of beneficiation of low grade ore and to look to foreign sources like Venezuela, Brazil, Liberia and north-west Africa for import of high grade ores. At present, much of the domestic production of the U.S.A. is of a low grade and has to undergo extensive and costly beneficiation. This is supplemented by imports of several million tons of high grade ore from other countries.

The undesirability of fixation of such high grade as the standard composition for export was brought to the notice of the S.T.C. and it was suggested that the standard might be fixed at 60 per cent iron. But this suggestion received little or no attention. The high grade for export was adopted by the S.T.C. probably because, unfortunately, there are some competing private producers who seem to be prepared to guarantee the supply of ore of 65 per cent grade or better. It would be desirable to examine this question carefully in order that a rational policy may be adopted in the matter

# RESOURCES

of quality of exported ore. An alternative suggestion would be to stop the export of raw ore and replace it gradually by the export of pig iron of standard quality. This would ensure that our raw ores will be treated within the country and all conservation measures adopted.

## A Policy for Manganese

*Manganese Ore:* A large part of the important manganese belt of the former M.P. was mapped in detail between the years 1950 and 1955. There are some deposits in other parts of India which require the same detailed attention. Only a summary of the results of investigation carried out before 1955 has so far been published but it is not known when the full report on the manganese belt will see the light of day. It would also appear that no arrangements exist for keeping a watch on the developments taking place in these deposits year by year, by officers who were formerly connected with the study. As at least 40 to 50 per cent of the manganese ore reserves need beneficiation in order to be able to be readily saleable in foreign markets, intensive beneficiation tests will have to be undertaken side by side with the detailed assessment of the ore reserves. Drilling will also have to be conducted to confirm the belief that the deposits probably extend to depths exceeding 1,500 feet over the whole manganese belt.

The manganese industry has suffered a great deal by the unsteady and vacillating policy of taxation and quotas for export. Frequent changes of policy in regard to these have contributed to the dislocation of the trade and to the loss of some of our foreign markets. A firm policy for a fairly long period, say, for four to five years at a time, will go a long way towards stabilising the markets, even though it may be impossible to recapture the lost customers. Such a policy will have to be drawn up by persons familiar with international mineral trade and the problems of the mineral industry.

*Gold:* The only gold mines which are at present working are the three mines of the Kolar Gold Field and the Hatti Mines in Raichur District. Recent investigations in the K.G.F. have shown that there are large reserves of low grade ore, the successful exploitation of which would require high efficiency in mining and even special incentives by way of tax reduction. The Kolar mines were nationalised a few years ago by the Mysore Government and they have recently been taken over by the Central Government. Whichever agency works the mines should have a large amount of freedom in carrying out the mining operations with no interference beyond the observance of certain well accepted financial procedures. The low grade deposits can be worked only if they are placed under efficient technical management with full freedom to run them as commercial mining enterprises. Otherwise, the mines will have to be closed down soon and may become unworkable in future because of rising costs. This would be tantamount to great national loss, for the operations, so long as they do not involve loss, will provide employment for several hundred people and will produce gold which will always be welcome. In the case of Hatti Mines, it is

necessary to expand the size of the operations to make them economic; the daily output will have to be increased from the 300 tons or less of ore per day at present, to something of the order of 800 to 1,000 tons per day.

*Copper:* India has at present one producing copper mine, namely that of the Indian Copper Corporation in Singhbhum in Bihar with an output of about 8,000 tons of copper per year. The mines can produce more if the number of working faces can be increased and the area of lease is also increased. There are certain other deposits such as those of Khetri and Daribo in Rajasthan and Bhotang and others in Sikkim which are expected to be of workable size. The development of the Khetri deposits seem to have been postponed probably because the whole of the belt has not yet been investigated in detail and the ores not as high in grade as originally envisaged. However, full data will have to be obtained of the deposits by further investigations, in order to ensure that the development plans are based upon hard facts and not on surmises. The same remarks would apply to the other deposits.

*Limestone & Dolomite:* Our expanding steel and cement industries will require large quantities of limestone and dolomite. Investigations on limestone and dolomite deposits have not kept pace with possible demands though the need for such investigations was pointed out in 1955-56. It is necessary to ensure that data are available on all limestone deposits throughout the length and breadth of the country so that the proved resources are always kept ahead of the demand for consumption.

*Ceramic & Other Clays:* There is a large and growing demand for various types of clays by the ceramic and other industries. Numerous deposits of clay of varying characters occur in different parts of the country, and even some of the shales are capable of being utilised if they are subjected to accelerated weathering. Several of these have been studied by the G.S.I. and by the Ceramic Research Institute, but a great deal remains to be done.

## Over-all Review Called for

In conclusion, it may be stated that the systematic study of the mineral deposits in different parts of the country will have to anticipate the demand for particular minerals. It is hard to justify investigations of common minerals in inaccessible places (like the Himalayas) when there are deposits in the plains which are equally good and more accessible.

All modern methods of mineral finding will have to be employed and the expenditure in personnel and funds kept to the minimum.

In the opinion of the writer, a periodical critical assessment is necessary of the work of the various organisations which are engaged in investigation and development of the mineral resources of the country. The agency for such review is best supplied by the Planning Commission which has necessarily to find the resources for the activities of the Government organisations concerned. Only by such independent assessment will it be possible to ensure that these organisations continue to do efficient work with the least expenditure. It is also necessary to ensure that full co-ordination of activities is effected between different organisations charged with mineral investigations, so that there is free exchange of information and experience amongst them and overlap or repetition of work is avoided.

# REGIONAL DEVELOPMENT

A.V.R. CHAR

ONE of the objectives of planning is to see that the benefits of economic progress are extended to the less developed regions and thereby reduce regional disparities.

This calls for identification of the so-called backward regions. An important indicator of backwardness is the per capita income figure of the different States. In our federal set-up, the States have a large field for decision-making and action and as an adjunct to formulation of State economic policy they have departments which collect statistical data including income figures. There are also several non-official agencies which have done work on computation of State incomes. The National Council of Applied Economic Research has even extended the scope of enquiry down to district level. A recent publication of NCAER\* gives estimates of State and district per capita income figures for the year 1955-56. These figures broadly indicate the relative economic position of different States in the country and of different districts within each State. NCAER is currently engaged in estimating figures for 1960-61. These, when made available, will help an assessment of the rate of growth of various States over a period of years.

It may be relevant to say a few words on the approach of NCAER and that of the statistical bureaux of States. The concepts and methodology of these State bureaux vary, and comparability is made difficult. NCAER, however, has applied the same set of concepts and methodology to all the States making the comparisons meaningful. How the State levels of income as estimated by the States' own statistical bureaux and by NCAER differ is shown on page 9 of the publication. In eight cases the figures show a close correspondence, whereas in the case of three other States they differ widely:

\*Review of Inter-District and Inter-State Income Differentials—1955-56 by the National Council of Applied Economic Research, New Delhi

## NEW STUDIES ON STATE INCOMES SHED LIGHT ON BACKWARDNESS

concept would be a better index in framing an opinion about the welfare of the residents of a State, the income originating concept would be helpful in focusing attention on the levels of productive activity in a particular State.

By and large, the NCAER has adopted the same method as followed by the National Income Committee i.e. product approach for some sectors and the income approach for other sectors. In having recourse to the income approach, they have assumed that the working force would grow at the same rate as population growth. As such the estimates may fail adequately to measure the income originating in these sectors. For it is to be noted that the growth of labour force is conditioned by the age and sex composition of the population. Further, inter-State and inter-district migration get obscured



PADDY farmer in Kashmir, a State which, for all its beauty, is economically one of the backward regions

The essential feature of the NCAER's approach is that the concept of net domestic product at factor cost has been adopted in preference to net national product. The difference between the two would constitute the net inter-State income flows about which we do not have adequate data. While it is true that the estimates based on the income-accruing

by adopting the rate of growth of population of the State. The adverse effect arising from this would be felt more at the district level than at the State level. When adjustments are made bearing this in mind, the resulting estimates may differ by a wide margin. Want of reliable statistics on labour force might have led NCAER to adopt such a procedure;

this nevertheless is a limitation, which has to be remembered while drawing conclusions from the estimates.

In such sectors as agriculture, animal husbandry, fisheries, forestry, mining and factory establishments, net output is valued at State average prices and not at district prices, and the argument put forth in favour is that the objective is to study the inter-regional differentials in the volume of production of goods and services. If this is the criterion, then the question would arise why the all-India prices should not be used. However, for sectors other than these, all-India averages are used because of non-availability of regional data.

In arriving at net figures, deductions made are based on the practices followed by different statistical bureaux. The State average is in turn used for arriving at district estimates. It has been indicated that as information on operating costs and depreciation are not very satisfactory, arbitrary assumptions could not be altogether avoided. All this only points up the difficulties involved in estimating State income figures. Sustained work in the field is needed not only to improve the quality of data over a period of years, but also to provide a better empirical basis on which policies could be based.

The main findings of the monograph are as follows: Wide variations in total and per capita income as well as the sectoral composition of income are noticed among the States as well as districts. West Bengal, Maharashtra, Punjab, Gujarat and Assam had per capita income which was higher than the per capita income of Rs 255 for the country as a whole—while Bihar had the lowest per capita income of Rs 149 (see appended table). Taking all the 289 districts, district per capita income varied from Rs 84 in Tehri Garhwal to Rs 743 in greater Bombay. Agriculture accounted for more than 50 per cent of the income in the States of Assam, Bihar, Kerala, Madhya Pradesh, Mysore and Orissa. The share of agriculture was highest at 58 per cent in Bihar and it was least in West Bengal and Maharashtra. The share of manufacturing was highest at 30 per cent in West Bengal while in Punjab and Orissa manufacturing accounted for only 11-12 per cent of total income. This is suggestive of an association between

high levels of per capita income and higher proportion of income originating in industrial sector. However, it is interesting to find that in some of the States having low per capita income, the services sector accounted for nearly 40 per cent of total income. Thus, in Punjab, U.P. and Rajasthan the share of the services sector was as high as 41.8, 40.8 and 37.5 per cent respectively, the share of industry in these States being 11.37, 12.9 and 14.14 per cent respectively. On the other hand, in Assam, despite the fact that industry accounted for nearly 26 per cent of total income, the share of service sector was only 20 per cent. It is possible that this high share of industry is due to the inclusion of tea plantations under industry (as shown by the State Statistical Bureau). However, these diverse records need to be probed into if only from the point of view of gaining a better understanding of the forces at work.

Similar variations are also noticed in the sectoral composition of district incomes. Some 69 per cent of the districts had more than 45 per cent of their income originating in agriculture, while 64 per cent of them had about 15 per cent (or less) of their income originating in industry. The variation in per capita district income is highest for Maharashtra and least for Kerala. About 10 per cent of all the districts (or about 29 districts) had per capita income less than Rs 146 and bulk of them were concentrated in U.P. (11 districts) and Bihar (10 districts).

As indicated earlier, estimation of State income is beset with difficulties—both conceptual and statistical. The NCAER booklet indicates the diffi-

## NEW COAL WASHERY

A coal washery is to be set up at Kathara in Bihar with Soviet collaboration. Under contract signed recently, the Soviet Union will supply equipment, instruments and other material for the washery, valued at over 3 crore. The washery will have an annual capacity of three million tons of raw coking coal.



WOMEN from a tribal village of Madhya Pradesh go out to fetch water

culties involved and the limitation of these figures. Speaking about the need for national income statistics, Prof. Kuznets has said, "Indeed the major difficulty is not in the defects of the national product measures but in their scarcity." From this point of view alone, NCAER's recent publication would be welcome for research students in the field. If only we care to recognise the assumptions and difficulties involved, our understanding of the regional problems would be on a better footing.

While it is true that in drawing conclusions from these figures we should be careful, the variation in the levels of income is wide enough and in some cases the level is sufficiently low as to warrant designating particular districts as backward.

It may not be out of place to point out the thinking of the Planning Commission in regard to regional development. The Commission's study entitled *Economic Development in Different Regions in India* presents a factual account of development achieved during the ten years 1950-51 to 1960-61. The study itself is made in terms of selected indicators in different fields such as area irrigated, installed generating capacity, towns and villages electrified, road mileage, percentage of school going children in different age groups etc.

There is greater awareness regarding regional development than ever before, and attempts are made in more than one way to identify the backward regions and to assess their needs as well as their potentialities,

(See table overleaf)

## Sectoral Composition of Income within States (1955-56)

Name of the State	Per cent of income originating from				Total income (Rs crore)	Population <sup>4</sup> (Lakh)	Per capita income (Rs)
	Agriculture <sup>1</sup>	Manufacturing <sup>2</sup>	Services <sup>3</sup>	All sectors			
1	2	3	4	5	6	7	8
1. Andhra Pradesh	49.34	13.65	37.01	100.00	767.82	335.49	229
2. Assam	53.55	26.38	20.07	100.00	277.04	103.52	268
3. Bihar	58.78	14.78	26.44	100.00	633.76	426.20	149
4. Gujarat	41.96	23.94	34.10	100.00	497.58	184.48	270
5. Kerala	50.18	17.40	32.42	100.00	346.40	152.26	228
6. Madhya Pradesh	57.63	14.16	28.21	100.00	632.14	292.22	216
7. Maharashtra	31.90	26.58	41.52	100.00	1,026.63	357.78	287
7a. Maharashtra excluding Greater Bombay	42.87	18.23	38.90	100.00	760.99	...	...
8. Madras	43.12	16.94	39.94	100.00	732.37	319.03	230
9. Mysore	51.32	18.10	30.58	100.00	436.98	214.94	203
10. Orissa <sup>6</sup>	54.07	11.53	34.40	100.00	306.73	163.88	187
11. Punjab	46.82	11.37	41.81	100.00	505.56	182.21	277
12. Rajasthan	48.32	14.14	37.54	100.00	418.52	180.63	232
13. Uttar Pradesh	46.29	12.90	40.81	100.00	1,221.23	684.81	178
14. West Bengal	31.77	29.98	38.24	100.00	836.68	283.50	295
14a. West Bengal excluding Calcutta and 24-Parganas	44.23	26.54	29.23	100.00	515.66	...	...
15. ALL-INDIA <sup>6</sup>	45.3	18.5	36.2	100.00	...	...	255

<sup>1</sup> Includes income from animal husbandry, fisheries and forestry besides agriculture proper.

<sup>2</sup> Includes income from mining, factory establishments, small enterprises and construction.

<sup>3</sup> Includes income from all service industries.

<sup>4</sup> Population figures relate to the end of the period 1955-56 for all States except Orissa. For Orissa they relate to the end of the period 1956-57. These have been estimated on the basis of the 1951 Census population totals assuming simple average rate of growth of population over this decade.

<sup>5</sup> Estimates relate to the year 1956-57.

<sup>6</sup> Estimates refer to the country as a whole including Jammu and Kashmir and Union Territories.

SOURCE : Estimates of National Income, 1948-49 to 1961-62, Central Statistical Organisation, Cabinet Secretariat, Government of India, 1963.

# DEAL *Only* IN METRIC LENGTHS



The Metric System of Weights and Measures is the only legal system throughout the country.

Here are some standard garment lengths in metres :

Bush Shirt :	1.85 metres
Shirt : (full sleeves)	} 2.75 metres each
Coat :	
Trousers :	} 0.90 metre
Blouse :	

FOR QUICK SERVICE AND FAIR DEALING

## BUY IN METRES

By C.V.H. RAO

IF Andhra Pradesh occupies a significant place in India's agricultural economy, agriculture occupies a more than significant place in Andhra Pradesh's economy. It is the State's mainstay, and would continue to be so for many years to come—at least until the programme of industrialisation makes recognisable headway.

Andhra Pradesh, as is well-known, is a major producer of rice but it

three areas. This latter aim has meant the drawing up of irrigation schemes—major, medium and minor—especially in the Rayalaseema and Telangana areas.

The major and medium irrigation projects completed, under construction or planned since the beginning of the First Plan in the State, are expected, when their full potential is exploited, to bring under irrigation about 4.7 million acres in addition to the 5.8 million acres under irrigation in 1951-52. By the end of the Se-

nine major irrigation projects, including phase I of the Nagarjunasagar project (which has subsequently been placed outside the Plan schemes on account of its enormous cost) while in the Second Plan three major projects were included. During the first two Plan periods, provision was made for 39 medium irrigation projects.

Among the major First Plan projects completed are the Rallapad, Upper Pennar Krishna (Prakasam) Barrage, and Kaddam projects and the Romperu drainage scheme. Those in progress and continued in the Second Plan are Bharavanitippa, Rajolibanda and Musi projects besides Nagarjunasagar. The Tungabhadra Project High level Canal taken up during the Second Plan is in progress while the Pochampad project has been only recently taken up, and Vansadhara project is yet to be taken up. These major irrigation projects were estimated to create, ultimately, irrigation potential of 3.4 million acres.

As for medium irrigation projects, 22 of them were planned for the First Plan and 18 during the Second Plan period of which 19 were completed and the remainder are in progress or nearing completion. While a few of these are designed to serve the needs of scarcity areas in Andhra like Srikakulam and Visakhapatnam districts, a large proportion of them are intended to meet the long-standing requirements of scarcity areas in Rayalaseema and the undeveloped areas in Telangana. Some of these medium projects are extensions of the previously existing projects as in Srikakulam, Cudappah, Kurnool, Mehaboobnagar, Adilabad, Nizamabad and Khammam. Except for the Narayanavaram Anicut scheme, under which a large ayacut of 28,000 acres has been developed, the Kurnool Cudappah canal under which 90,500 acres were developed and the Koilsagar project which covers an acreage of 7,600, the other medium projects are either under construction or the irrigation potential created under them has been utilised only to an insignificant degree.

In the sphere of minor irrigation, 99 schemes, besides 155 tank works, in the coastal Andhra area and 1,372 tank works in Telangana for irrigating 1.89 lakh acres were taken up during the First Plan period. During

*Andhra irrigation schemes show up a planning problem—  
the lag between potential creation and its use*

## FRUITS OF WATER

### NAGARJUNASAGAR SOLVES THE RIDDLE

produces other food crops like millets and maize and a number of commercial crops like sugarcane, oilseeds, cotton and tobacco. The development of agriculture (and with it the economic progress of the rural community) is interlinked with the availability and use of irrigation facilities.

The three different zones which constitute Andhra Pradesh—Andhra, Rayalaseema and Telangana—do not possess the same advantages in regard to water. As the Techno-Economic Survey of Andhra Pradesh (NCAER) says: ".....the development (in agriculture) is uneven and the different regions have stabilised their agriculture at different productivity levels." The coastal Andhra districts are well favoured in that direction while Rayalaseema "is a typical dry tract situated in an unfavourable natural zone" and has been declared as the famine zone of South India, and Telangana "is the most backward of all the agricultural regions in the State".

The effort during the three Plan periods has been to increase the water availability for irrigation and, as far as possible, eliminate the imbalance in the irrigation facilities in the

cond Plan the area of irrigated land had risen to 6.91 million acres.

Apart from the projects taken up under the first two Plans, some 44 medium irrigation projects are scheduled for construction during the Third Plan period, under which it is expected to develop an ayacut (or irrigated area) of 8.9 lakh acres. But the emphasis in the Third Plan has been on minor irrigation schemes. They are easier to build and they assure quick results. The State Government have recently decided to increase the Plan allotment to minor irrigation schemes by 50 per cent—from Rs. 14.56 crore to Rs 20 crore. The programme also involves improving of tanks, building of anicuts and embankments and the digging of channels and drains. In the first two years of the Third Plan an area of 82,000 acres has been brought under minor irrigation schemes, and an additional area of 80,000 acres is expected to be irrigated in the current year at a cost of Rs 2.40 crore, according to the Chief Minister of Andhra Pradesh. The target for each of the remaining two years of the Third Plan is 90,000 acres.

During the State's First Plan, when Andhra Pradesh was yet in the offing, provision had been made for

the Second Plan period 138 minor irrigation works and tank improvement schemes were taken up in Andhra and 1,845 tanks in Telangana. These involved an outlay of Rs. 4.70 lakh and helped to irrigate 2.85 lakh acres. Besides those listed above, irrigation facilities have been developed in Rayalaseema and Telangana areas through wells which afford direct benefit to the cultivator by ensuring water for irrigation at a minimum cost. The recent decision of the State Government to increase the subsidy for construction of wells from Rs 750 to Rs 2,000, of which Rs 750 will be an outright grant and the balance is treated as a loan, is a means of creating irrigation potential in areas where irrigation by other means cannot be provided. The scheme is based on the principle of 'one well for each family'.

\* \* \*

There has been progressive increase in the rate of utilisation of the irrigation potential created under the more important medium irrigation projects. In respect of a number of these projects annual targets of development of ayacut have been prescribed and supply channels and field channels are developed in relation to the annual targets fixed. Thus, in the case of the Tungabhadra Low Level Canal, while the total ayacut, when the project is fully developed, is estimated at 148,735 acres the target was 24,378 acres in 1956-57 which increased to 1,20,000 in 1961-62. It is envisaged that the full target would be reached even before the prescribed period of 13 years is completed. The shortfall in utilisation, which amounted to 6,700 acres in 1961-62, was due to the breaches in the main canal.

Under the Krishna Barrage, the total irrigation potential envisaged is 109,059 acres, but utilisation in 1961-62 was 48,319 acres only, the reason for the shortfall being that certain other schemes under the barrage had not been completed. In respect of the Kurnool-Cudappah canal, while the total irrigation potential expected to be created would cover 2,78,000 acres, such potential has yet to be created for about 40,000 acres and this is expected to be accomplished by 1964-65. At present, an area of 230,000 acres is being irrigated.

The full utilisation of the irrigation

potential created under the Kaddam project has been impeded by the breach in the dam in 1958, which is being restored. The total ayacut of 65,000 acres under the dam is, however, expected to be reached by 1964-65.

In respect of two other projects—the Upper Pennar and the Rajolibanda—the position is very disappointing in the case of the former and not very satisfactory in respect of the latter. Only 694 acres are irrigated under the upper Pennar Project, out of a targeted acreage of 5,000, the reason being non-availability of supplies in the canals; and further utilisation would depend entirely on such availability. As for Rajolibanda, the total ayacut of 87,480 acres envisaged would be attained shortly, as localisation of ayacut under the project has now been completed. So far the shortage in utilisation was due to the delay in such localisation.

\* \* \*

It would appear that utilisation of the irrigation facilities created under some of the more important medium projects in the State is inter-related to and has been dependent on the progress of construction of irrigation canals and field channels and distributaries, the latter process beginning or being taken up only after the construction of the main project was completed. It was not taken up side by side with the work on the project itself. The time-lag between the completion of the Kurnool-Cudappah canal and the localisation of ayacuts in different villages to be served under it illustrates this. The targeted ayacut under the canal was still short by about 40,000 acres by the end of 1962-63.

This contrasts with the position in connection with the utilisation of the potential to be created under the Nagarjunasagar project. The construction of the main canals on the right and left of the dam is progressing alongside of the work on the main dam itself. While the dam has reached a height of 150 feet, the right main canal has been excavated up to 50 miles and the left main canal has been excavated up to 72 miles. Work on the aqueducts, dams and drainage work along the canals is also in progress. The significant progress was in respect of the field channels; alignments for such

channels of 6,755 miles have been completed on the right main canal and alignments for 215 miles on the left main canal.

\* \* \*

The effective use of the irrigation potential is much more important than its creation; and the Planning Commission has been underlining this aspect of the problem in repeated suggestions to the State Governments to adopt necessary legislation to facilitate enforcement of obligations on the cultivators and potential beneficiaries, especially the beneficiaries from the major and multi-purpose projects on which enormous expenditure has been and is being incurred. Mr. V.T. Krishnamachari, both when he was Deputy Chairman of the Planning Commission and also subsequently, has been a persistent campaigner for such enforcement.

The most acceptable method of doing this is to impose a betterment levy and to evolve a unified water rate structure apart from land revenue. The Report of the Techno-Economic Survey of Andhra Pradesh says that the imposition of a betterment levy is justified and essential.

A further suggestion embodied in the Report which the Andhra Pradesh Government are trying to implement in respect of the proposed project for a barrage over the river Godavari is that "except in the case of the most urgent irrigation projects, a referendum may be held among the landowners in the areas to be benefited by the proposed projects to ascertain whether they desire to have the project and their willingness to bear part of the cost thereof."

The declared policy in regard to irrigation projects in Andhra Pradesh of all categories is that they are intended not only to develop irrigation potential in the State as a whole but to bring Telangana and Rayalaseema areas on a par with the rest of the State. Integral to the development of irrigation are measures for flood control and development of inland waterways.

By the end of the Third Plan when most of the major and almost all the medium projects are expected to be completed, it will also be essential to secure assurances from the beneficiaries about the utilisation of the benefits the projects would provide. Only thus would tangible results in increasing food production be realised.

# Co-operatives and State Policy

## Can Interference Be Avoided?

G. S. KAMAT

THE Prime Minister recently pleaded for less interference from Government officials in the affairs of the co-operative institutions. About the same time, the Ministry of Community Development and Co-operation constituted a committee under Mr V.L. Mehta to examine the present set-up of the co-operative departments in the various States. It might be useful to have a quick glance at the relations between co-operatives and Government as they have evolved in the last few decades.

The co-operative movement was a State-sponsored movement even when it was born in 1904. Since the beginning of the planned era, "co-operation" has been used as an instrument of State policy. Not only do units in the co-operative sector today receive assistance in the form of contribution to share capital, loans etc, new institutions are set up in the co-operative sector—at times they are imposed from above. Sometimes "pre-co-operative" organisations are started by the administration itself, to be converted later into co-operative organisations. Co-operation is viewed as one mode of protecting the underprivileged classes. All this makes the relationship between the State and the co-operative movement more complex and creates new problems. Since the State obviously wants the co-opera-

tive sector to take up certain responsibilities in the larger and long-term interests of society, of necessity the State is likely to intervene more frequently, and in various ways, in the co-operative sector as it secures for itself a larger place in the economy.

Until Independence the method of State assistance to co-operatives was mostly administrative. In fact, as maintained by some, "it over-administered and under-financed" the movement. Now the State takes positive initiative in sponsoring societies. To what extent the cardinal principle of co-operatives, namely self-help and selective membership, can be reconciled with the role envisaged for them now is the main problem to be solved. The weaker sections of society, for whose sake co-operatives are sought to be set up, cannot bring in resources, and the State has to participate in their capital. In return the Government nominates representatives, official or non-official, on the committees of the institutions and they are given a special say in their policy-making. The underlying idea is to protect the institutions.

The so-called 'interference' becomes more forceful and sustained in areas where the movement is weak and leading co-operators do not have enough knowledge and experience of business management. At times it takes the form of posting of an experienced departmental officer to run the institutions. This may be a temporary arrangement, but it has still to be viewed as "State interference" as it is ordinarily understood.

As maintained by Mr Manilal Nanavati in *Co-operation in Kodinar*, "if the co-operative movement insists on remaining completely autonomous, its sphere of activity must remain relatively restricted.....Many of the tasks of agrarian reconstruction in underdeveloped countries are, in their very nature, beyond the capacity of any strictly autonomous institution. But if these are not to be left to the Government and the bureaucracy with all their known defects, democratic movements like co-operation must agree to a co-partnership with the State machinery." But care will have to be taken to see that this does not weaken the initiative and the sense of responsibility of the members as a whole.

This is not an easy task. Primarily

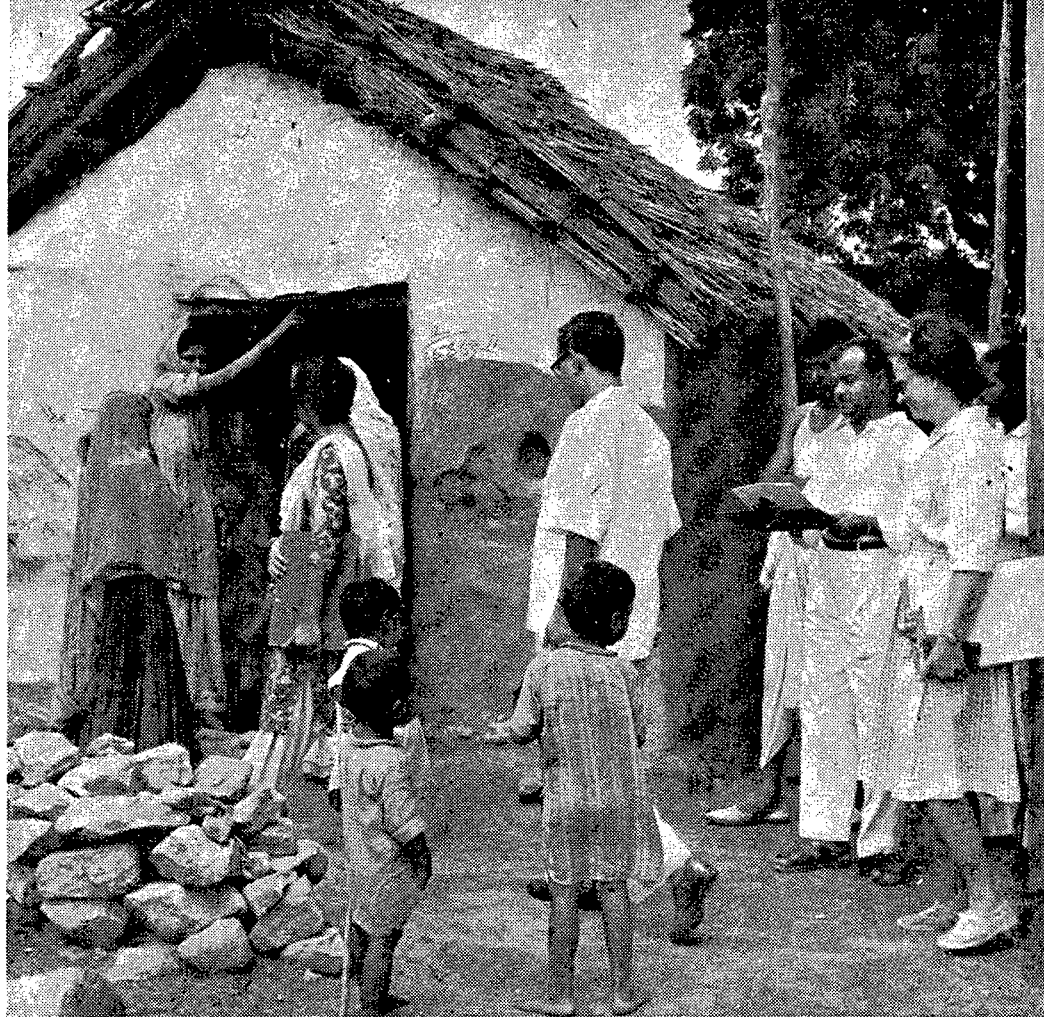
it relates to building up of responsible and enlightened leadership in the co-operative sector through extensive and intensive educational and training programmes. Mature leadership is not found ready-made. Moreover, co-operative organisations, in present conditions, face much stiffer competition from the other sectors, and the science of business management is not easily acquired. As in the country as a whole so in co-operative organisations we have yet to learn to distinguish between the democratic spirit and the democratic formalities like elections. Electioneering has often prevented the right kind of people from assuming co-operative leadership. Factionalism and bitterly fought out elections are one of the challenges to the co-operative sector today. If this problem could be solved, more and more responsibilities could be shouldered by the co-operatives without need for official interference.

It is sometimes noticed that a shrewd type of leadership itself asks for the services of an experienced Government officer on deputation for their institution. If the institution fails to show results the poor fellow may be held responsible, while the real culprits primarily responsible might have been those on the board "interfering" in the day-to-day management. Often the deputed officer also loses interest in the institution as his main loyalty is to the department. He is with the institution for a short period, while his prospects are in the department. Thus even "officialisation" done with the consent of the people directing a co-operative institution does no good to it.

To sum up, the word "interference" cannot be easily defined; it has to be understood in relation to the problems and the constitution of different organisations. We are experimenting with new policies under different conditions. This necessarily leads to trials and errors. If our ultimate objective is clear and we maintain mutual respect, most difficulties can be solved through free debate. In any case, "co-operation cannot be hostile to the State. It subordinates itself loyally and readily to national jurisdiction. A State is a compulsory organisation and is indispensable for the protection of rights and justice in the broadest sense."

FERTILITY  
SURVEY OF  
VILLAGES  
NEAR DELHI

*Survey team goes round  
village before collection  
of data*

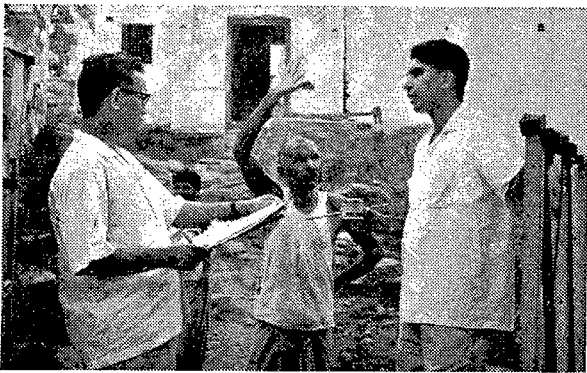


**THEY**

**FIND**

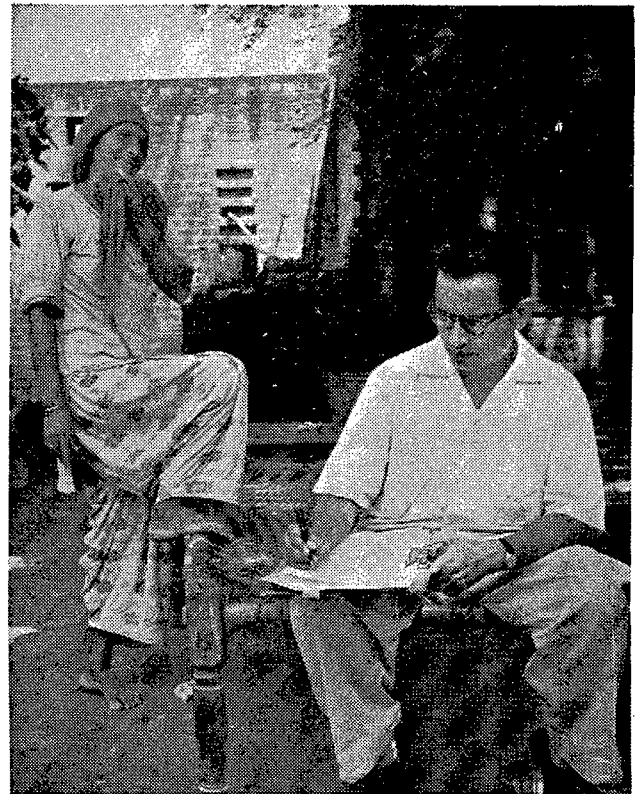
**OUT THE FACTS**

**OF LIFE**



*A village elder helps. He  
knows every household.*

*Village women speak about  
personal histories only when they  
learn to trust the survey teams.*



**T**HE Central Family Planning Institute has launched a fertility survey in the villages in Mehrauli block in the Union Territory of Delhi.

The data collected from sample households will serve a double purpose. They will give descriptive information about present demographic and fertility conditions in the villages, and also enable evaluation of the effect of family planning programmes on fertility behaviour.

According to the 1961 Census the Mehrauli block had 34 inhabited villages with a population of 45,032 persons. Some 2,000 households, selected on systematic sampling, will be studied.

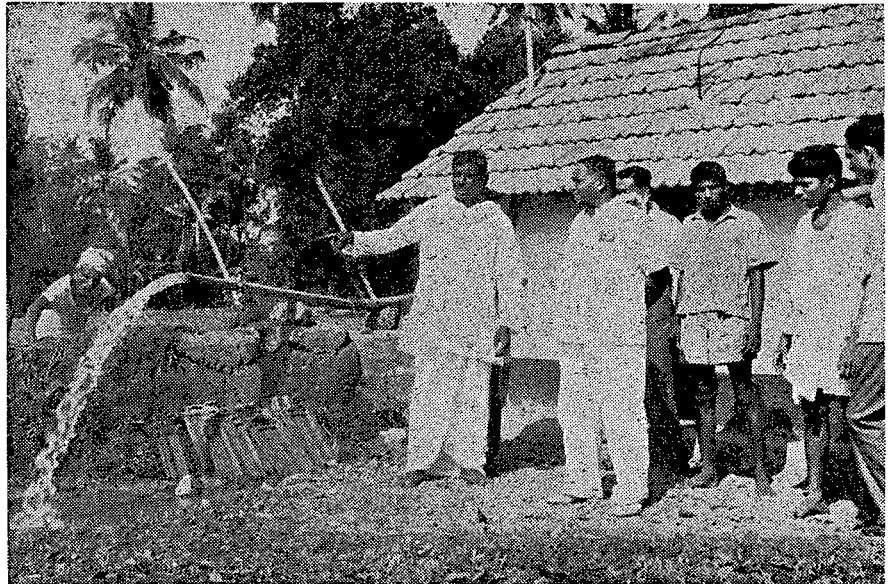
The first step of the survey is to prepare a thorough house list. This is easily done in urban areas where municipal numbers already exist. In rural areas, this is more difficult because house construction is haphazard. Therefore, all houses in a village have to be serially numbered before the lists are prepared and the survey is conducted. These lists will provide the basic sample frame for the survey.

The project of preparing village lists in all these 34 villages of Mehrauli was taken up on August 30, 1963. In addition to numbering the houses in each village, information regarding the number of households in each house, name of the head of the household, number of the members in the family was also collected. The first phase of work is about to be completed and work relating to main survey will start soon after.

There will be two schedules, the household schedule and the fertility schedule. They will be used for all the 2,000 selected households. Information will be collected regarding all the members of the households, their relationship with the head of the household, age, sex, marital status, etc. The fertility history form will be filled up for all the married women between the ages of 15 to 45 who are residing in these selected households. In this schedule, information will also be collected regarding their ages, education, number of children born to them, and interval between two live births.

*Photographs by  
Bhupinder Singh Dhillon*

## SUCCESS The Mysore Farmer Who Has STORY Solved Irrigation Problem



### HE RAISES 3 CROPS

**M**R A. Narasimha Alva comes from Alappe, a suburb of Mangalore in Mysore State. He is a *chalageni* tenant or a temporary lease-holder under the ryotwari system, holding about four acres of land. He used to raise only one rainfed crop and get about 60 *muras* (2,280 kilograms) of paddy. This was not enough to feed his family and meet the cost of cultivation and the rent of the landlord. He wanted to increase the output.

Mr Alva had heard about improved methods of irrigation. In January he got an irrigation pump set installed in his farm. He took it from the South Kanara District Co-operative Agricultural Development Society on a hire-purchase basis. By this new method he now raises three paddy crops in his fields, besides growing vegetables and coconuts.

Mr Alva is the first *chalageni* tenant to have adopted progressive method of cultivation. He is also the first tenant of his category to have received the irrigation pump set from the newly-formed Co-operative Agricultural Development Society.

It is about two months since Mr Alva got his third crop (*Kolake*)—

about 75 *muras* (2,850 kilograms) of rice. As promised, he donated 76 kilograms of rice to the National Defence Fund. The Deputy Commissioner of South Kanara, who received the offer on behalf of the Mysore Government, appreciated his gesture and called him a "model farmer".

But Mr Alva now faces another problem. The State Forest Department proposes to acquire his as well as adjoining cultivable lands for setting up a wood seasoning kiln. But he is undaunted. He feels that in the present situation he certainly can get along as a farmer.

#### Snippets

The mid-Pennar north canal, which is a part of the Tungbhadra high-level canal project, has been opened for irrigation in Andhra Pradesh. The mid-Pennar project will irrigate 84,000 acres in the first stage and 35,000 acres of additional land in the second stage.....Small-scale industries produced goods worth Rs 1,232 crore last year. There were about 36,457 registered small units and about 64,000 unregistered ones in the country.....Bharat Electronics has designed an instrument for measuring breakdown voltage of electrical and electronic components and insulating materials up to 5,000 volts.

# Fourth Plan: States Advised to Set up Working Groups

THE Planning Commission has addressed a letter to the State Governments to initiate action on the preparation of the Fourth Plan.

The letter draws the State Governments' attention to the fact that the principal objectives of our long-term development and the basic strategy for attaining them have been indicated in the Third Plan Report. The size and structure of the Fourth Plan have obviously to conform to these objectives and strategy. But much work needs to be done, the letter points out, before the Fourth Plan can assume a concrete shape.

At the Centre, certain steps have already been taken by the Planning Commission. Besides undertaking several studies, the Commission has also set up, in collaboration with the Ministries of the Union Government, a number of planning groups and working groups.

These groups are making a critical review of the progress of the programmes and schemes in the Third Plan period, assessing the position likely to have been reached by the end of the Third Plan period and formulating proposals for the Fourth Plan in the perspective of these needs of 1976.

The groups are working on the basis of the tentative targets for 1970-71 given in the Third Plan Report. They are to submit preliminary notes by November 1963 giving an idea of the Fourth Plan targets in their respective fields, the financial provisions needed to enable advance action and the important schemes and projects that could be started in the first two years of the Fourth Plan. After further work, the groups are to submit their reports by March 1964.

The Planning Commission itself is engaged on a mid-term appraisal of the Third Plan.

The Planning Commission has now suggested to the State Governments that they might also

consider setting up similar working groups in order to have close collaboration between the Union and the States.

The fields to be covered by the groups include: agriculture, irrigation and power, village and small industries, education—general and technical, health and family planning, urban development and housing, welfare of backward classes, transport and resources.

## Federal Set-up and Planning

AT his press conference on October 9, 1963 the Prime Minister clarified certain observations about the Planning Commission he had made at the Indian Science Congress.

Replying to a question put by a newspaperman, Mr Nehru said:

When I said that, my reference was confined to science laboratories. I said they tended to follow governmental routines, and governmental routines happen to be far from dynamic. They are protracted routines and I said that even the Planning Commission had gradually become more and more the governmental type of organisation. I was not saying anything in criticism of the Planning Commission's work, but rather about the procedure that is employed. I think the Planning Commission has done very good work, but it is not fully appreciated. Some criticisms are made of its "interference" and so on. But the fact is that mostly things are referred to it by the Ministries. Now, what is the work of the Planning Commission? There are perspective planning and the planning for the future Five Year Plans; secondly, there are the Annual Plans and explaining them to the States and getting their agreement to them and appraising the work from time to time. A very

important work that it does is in dealing with the States. It does not issue any directives. It writes and advises them sometimes. We are faced with a peculiar and difficult problem. Planning itself is difficult enough but planning for a Federal State is a peculiar problem. I don't know what they do in Russia and in other places. But here we have to plan for a Federal State and that requires the goodwill of the States, discussions with them. And this cannot be done by each Ministry separately. It can be done with regard to a particular project, but not as a whole. The Planning Commission, therefore, undertakes this task, which is a heavy and difficult task, of discussing their schemes with the States, discussing their finances etc. and so many other things. Its work has grown. It is not still an executive agency, it does not interfere, but naturally when its views are asked for, it expresses them.

## Accelerating Farm Output

THE Planning Commission has asked State Governments to strengthen agricultural administration and remove deficiencies in the distribution of better seeds and fertilisers. It has also suggested that steps be taken in a co-ordinated way to speed up the use of irrigation facilities.

These points have been mentioned by the Commission in a letter to the States in connection with the forthcoming discussions on their plans for the coming year. The Commission has remarked that for various reasons particularly the slow rate of farm output, the Third Plan has not yet had adequate impact on the growth of the economy, employment and living conditions. There have been large investments but in several cases the benefit has not been proportionate. In others, the benefits could not be fully used because of lack of complementary measures. These aspects should receive special attention of State Governments and agencies in districts and blocks.

The Commission has suggested that top priority be given to finding resources for projects under execution so that their benefits may be available when the Fourth Plan begins.

# Are We or Aren't We Better Off?

K.S. RAMACHANDRAN

WHAT every critic of the Government's policies has in mind today is the rising prices and the "inevitably" falling standard of living. No doubt, the prices are rising but is not the phenomenon of rising prices associated with rising incomes and thus rising standard of living?

In the 1930s prices were low as well as the incomes. Compared to those years, the prices and the levels of income today are ten times higher. But from this can one conclude that we are no better off than those who had shared the "bounties" of the 'thirties? If one goes merely by the figures, arriving at such a conclusion is not anything strange. How about hard facts?

Here is my father who had lived through the 'thirties. Today, whenever he talks of the old days, he makes a reference to the life he lived during that period. His narration is somewhat like this: "You see, milk cost only as. 4 a measure. We could get coffee seeds at the price of some odd annas a lb. I used to pay only Rs 10 for a big bag of rice containing not less than 50 measures. I had a coat made for just a couple of rupees." So, he goes on.

When my father was in Madras in 1930, his monthly income was Rs 40. His income being this low—and so the incomes of others—the odd annas that were paid to procure a lb. of coffee seeds or a measure of milk meant more than the mere face value. Assuming that the price index today is ten times more than that in the 'thirties, my father's salary of Rs 40 had the value of Rs 400 today. On figures alone a comparison between my father's economic condition and mine (I am getting a monthly salary of Rs 400) is not only justified but also possible.

My father was a graduate while I am an M.A. In the days when he got his much coveted Degree, there were few others with equal educational qualifications, and on the basis of the laws of supply and demand, the scarcity of educated men should have caused a rise in the price paid to such an individual when he took up a job. But my parent got a job on a "royal" salary of Rs 35 in the year 1926 (equivalent to Rs 350 today) and retired on a salary of Rs 350 in 1961. (The price index of 1961 was ten times higher than that corresponding to the year 1926). Here is a man whose salary at the time of retirement was, considering the real value, nothing higher than his initial salary! His salary in 1950 was not more than Rs 140 per month—a rise of Rs 105 in 24 years, but between the years '50 and '61 the total rise had been Rs 210! His is not a singular case. There are many colleagues of his who have shared his experiences. They worked under conditions which a white collar worker of today would deem cruel. When my father wanted to attend on his ailing mother he was not given leave!

My father could save very little voluntarily while I can easily put aside regularly a sum of Rs 50 every month. My father retired with a few cotton coats in his possession while I could get a terylene suit stitched six months after I got a job. My father had to go to a rich neighbour's house for listening in to the radio while now we have two sets. During the worst summers in Madras, where the climate

is described to be "hot, hotter, and hottest", the only things available in my parental abode were an old umbrella, which refused to be useful when its services were most urgently required, an old pair of chappals for my father (my mother did not have one, then) and a broken hand fan. Now we have an umbrella for each one of us, two pedestal fans, and two pairs of shoes for each one of us. All these we have bought without forgoing the minimum of comforts.

True, the price index of today is ten times more than that in the 1930s and my salary is ten times higher than my parent's initial salary. So on a comparative analysis, the statistician would say that I am not better off than my father. But in the face of facts which we cannot ignore, am I not much better off?

## NEXT FORTNIGHT

The accent will  
be on

# CHILDREN

There will be a special feature on the MUSEUM OF DOLLS & TOYS that Shankar the cartoonist is setting up,

an article on CHILDREN IN THE PLANS and

an account of Balkan-ji-Bari.

*It is being brought out to mark CHILDREN'S DAY, Nov. 14.*

THE REGULAR FEATURES  
WILL ALSO BE IN.

# Indian & World Scientists Join Hands to Track Down Mysterious Ailment

Right : Dr. Salim Ali, leading bird expert of our country, examines the spread of a tick-bearing bird.

**I**N the spring of 1957 a mysterious disease broke out among monkeys in the Shimoga district of Mysore State. In the Americas, the death of large numbers of monkeys is associated with jungle yellow fever. But there had been no yellow fever in India or the East. Could the monkeys' deaths in Mysore be the first sign of the dread disease?

Field investigations were immediately organised to find out the truth. The Virus Research Institute of Poona took the lead. When the investigators arrived in the areas, they found not only that monkeys were dying in large numbers, but cases of illness were occurring among human beings also. There was sudden fever, headache, eye inflammation, and back and limb pains followed by vomiting and diarrhoea. One case in ten even proved fatal.

Viruses were isolated from the dead people as well as dead monkeys. The disease, it was established definitely, was not yellow fever. It was different, and was given the name Kyasanur Forest disease, after the forest where its occurrence was observed.

The virus seemed to be related to the Russian spring-summer group of tick-borne diseases. Now the hunt began for the types of ticks which could possibly harbour the virus. It was stupendous work but the scienti-



Migratory birds are caught and ringed before being released. Their movements can then be charted. 2. Scientist finds a tick on a bird.



sts were on the right trail and succeeded eventually in identifying the virus-carrier as the species of tick known as *Hoemaphysilis Spinigera*. The virus was isolated repeatedly from these ticks collected from the floor of the infected forest areas.

The hunt began for hosts which harbour the virus-carrying tick. The tick was collected in large numbers from wild forest monkeys

# VIRUS ON WINGS

## Migratory Birds Take Ticks With Them

and, occasionally, from small forest mammals and birds.

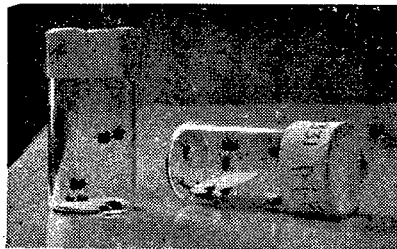
This discovery opened up a new line of inquiry. The Kyasanur forest disease was new to India and there was therefore reason to believe that the virus had been recently included. From where and by what agency had the virus been brought? Monkeys do not travel very far. Nor do the small forest mammals. Could it be birds, the wide varieties of migratory birds which flock to the warm plains of India every autumn, flying over thousands of miles of territory from their summer resorts in the north and north-west of the Eurasian land mass?

The answer to this problem is

being sought in a project now being carried out by the Bombay Natural History Society with the support of the World Health Organisation.

Planned under the guidance of Dr. Salim Ali, India's leading authority on birds, the project involves the netting and ringing of thousands of birds to determine their migratory routes and the part they play in spreading the virus diseases.

A captured bird after examination is set free with a ring round one of its legs, which bears the place and date of its capture. Its recapture in any part of the world helps to determine the exact course followed by it in its journey.



Above : Dr. H. Trapino, an American scientist, studying samples at the Virus Research Institute, Poona.

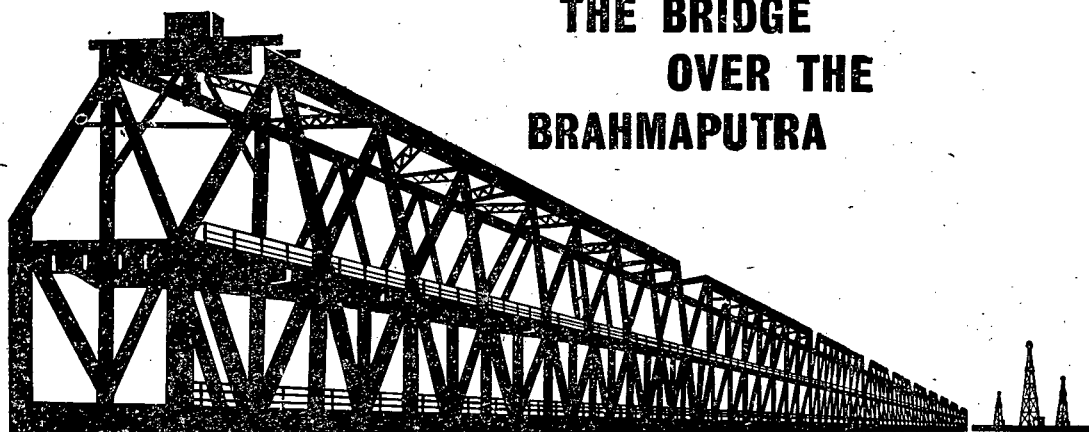
Middle: 1. Bird caught in a fine net spread by scientist. 2. Some ticks that were collected.

Left : Birds, which are inter-nation tourists, flying over the sanctuary at Bharatpur.

In the north similar ringing of the birds is being carried out by Russian scientists. They select for ringing mostly those birds which seem most likely to be involved in the dissemination of tick-borne viruses. These include the ground-feeders as well as branch-and-ground feeding birds such as wagtail, pipits, chats, thrushes, warblers and fly-catchers.

Courtesy: World Health Organisation.

## THE BRIDGE OVER THE BRAHMAPUTRA



By day and by night, with deafening roar and rattle, goods and passenger trains hurtle across the new Brahmaputra Bridge, connecting Amingaon and Pandu. When on 7th June 1963, Prime Minister Nehru formally opened the Saraighat Bridge, wholly Indian in design and execution, it marked the culmination of a plan first thought of in 1910.

Work commenced in November 1958, and it took Rs. 10.6 crores and nearly four years of round-the-clock effort to throw the bridge across the mighty and turbulent Brahmaputra.

When the first goods train travelled over the bridge on 31st October 1962, it heralded a new era in the fast-developing economy of north-eastern India. For the first time, an all-rail-cum-road link was established between the tea gardens and the oilfields of Assam and the rest of the country.

No less than 4.2 million cubic feet of concrete, 40,000 tons of cement and 14,000 tons of steel were used to build the 10-span, two-tier bridge with a roadway on top and rail tracks below. Of about 11,000 tons of vital mild and high tensile steel required to build the girders of the bridge, about 60 per cent came from the steel works at Jamshedpur. This is yet another example of Tata Steel in the service of the nation.

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The Tata Iron and Steel Company Limited

JWTTN 18A

## Cooke's Tour

"Every night the ambulances clatter around the rough streets, and when a body with thighs like bamboo poles refuses to be kicked into protest, it is turned over and found to be dead and hauled off to the mortuary. Two to three hundred a night of such corpses is the grudging figure..."

That is Alistair Cooke writing of Calcutta in *The Manchester Guardian Weekly*.

Now Mr Cooke is a famous reporter and *The Guardian* is a newspaper with a name for fairness. But when it comes to Calcutta the customary professional cautions disappear. Other cities abide the question: Calcutta is free. This is not to claim that Calcutta's squalor doesn't shock and revolt. But there is such a thing as arithmetical truth which should not be ignored when pursuing artistic truth. That is Dr Lohia's and Mr Cooke's fallacy.

Mr Cooke is right in pointing out that poverty is not an abstract noun. But he need have only spent a minute with pencil and paper to find out that three hundred deaths a night on the pavements would add up to more than the grand total of deaths in that city. And the newspaperman who, writing in *The Sunday Standard*, considers Mr Cooke "wholly objective" might also have done this little sum.

*Yojana* is not disputing the fact that our country must wake up from such insensitiveness to misery. Much of this insensitiveness is protective coloration. It will go as living levels inch their way up. It is only a couple of generations ago that pavement sleepers froze to death in the capitals of Western European countries.

## Monkey Business

THE way the importance of exports is sung about, one should not imagine that the export argument will prevail over all else. There are even now items of export which make a large number of people unhappy. For example monkeys. Monkeys are exported in large numbers for research abroad and as a nation which regards them as sacred we are somewhat uneasy about this monkey

business. Parliament has been particular that the catching and crating of monkeys should at least be humane.

The Animal Welfare Board has just come out with a recommendation that selling of monkeys for the sake of earning exchange must stop. The Board is also worried about frogs. Frogs' legs have long been a favourite delicacy with Frenchmen and is an export item from India. It is also growing popular with certain gourmets in Bombay. But the Board isn't sure in its mind that it is desirable. It has set up a sub-committee to report on the matter.

## Compulsions

ON the anniversary of the Chinese invasion a salaried employee was heard to remark: "The Emergency is nothing new to me at any rate. I have always experienced it on the tenth of every month."

## Amazing Maize

The work of the Botany Division of the Indian Agricultural Research Institute (IARI) in breeding better varieties of crops has earlier been noticed in *Yojana*. The Division has now come out with new gifts for our farmers.



On a Field Day recently arranged for farmers of the neighbouring villages IARI gave demonstrations of three new strains of maize. The first is Hybrid No. 218. It takes three months to mature and its yield is higher than Ganga Hybrid Makka 101. Since it matures ten days earlier than Ganga 101 it releases the land for cultivation of Rabi wheat. The second is Ganga Safed Hybrid Makka No. 2—a white-grained variety, preferred particular-



IGNORAMAN

Wants to Know

if during the WILD LIFE WEEK special protection was given to youthful artists.

ly by the people of Bihar and Rajasthan. The third is High Starch Hybrid Makka, also white-grained, suitable for making industrial starch. The last two hybrids have been released for cultivation; the first requires some more experimentation. It takes about three years of trial before a hybrid can be released.

## New Journals

WITH little fanfare a new journal has begun publication, the *Indian and Foreign Review*. It is published twice a month by the Ministry for Information and Broadcasting and supersedes the monthly *March of India*.

The aim of *Indian and Foreign Review* is to present, through notes and articles by commentators, the Indian view of matters concerning ourselves and the world. In order that the Indian diplomatic posts abroad can make ready use of it, the journal is printed on airmail paper and will be flown from Delhi.

The Chinese invasion of last winter showed the need to put across our viewpoint clearly and forcefully. *Indian and Foreign Review* ought to help in this task.

Another new journal to come out is the *Indian Co-operative Review*, quarterly journal of the National Co-operative Union. The Union already publishes a fortnightly, *The Co-operator*, which deals with news and developments in the co-operative field. The quarterly contains more learned articles, as well as reviews.

LIFE and

DEATH of

# LABOUR APPELLATE

# Books

## TRIBUNAL

*The Abolition of the Labour Appellate Tribunal by B. S. Narula. The Indian Institute of Public Administration, New Delhi. Pages 390. Rs 10.*

S. B. Kale

THIS is a case study of the three important and interrelated policy decisions of the Government of India—the decision to set up the Labour Appellate Tribunal (1950), the decision to abolish this Tribunal (1956) and the subsequent review and decision not to revive it (1961). The study gives a vivid and graphic picture of the balancing of conflicting interests made by the Government. It throws a good deal of light on the attempts made through a democratic process to establish social justice by formulation of public policies in the background of developing economy. This publication is indeed a valuable addition to the limited number of books available in the country on case studies pertaining to labour problems.

As background material the study gives a brief resume of the industrial relations on the eve of Independence referring to the views of National Planning Committee on Adjudication, the enactment of the Industrial Disputes Act, 1947, the era of progressive labour legislation initiated with the adoption of First Five Year Plan and the attitude of workers' and employers' organisations towards compulsory adjudication. The first part of the publication dealing with the decision to establish the Labour Appellate Tribunal describes how the need to have a suitable machinery to co-ordinate the activities of the several tribunals set up by the Central and Provincial Governments was keenly felt and how a demand to bring about some sort of uniformity in the widely divergent decisions given by the tribunals on important issues, such as payment of bonus, gratuity and other service conditions of workers, gathered strength. The issue was discussed at the tenth session of the Indian Labour Conference held on March 20-22, 1950, in New Delhi and subsequently the Industrial Disputes (Appellate Tribunal) Bill, 1950, was passed authorising the Central Government to constitute a Labour Appellate Tribunal for hearing appeals from the awards or decisions of industrial tribunals.

Part II of the publication deals with the various developments during the first two years of the Labour Appellate Tribunal during which the Tribunal was regarded to be on trial. The Planning Commission in the Draft Outline of the First Five Year

Plan issued in July 1951 disfavoured the provision of appeals against awards of industrial tribunals. The full-bench formula on bonus and some of the subsequent decisions of the Labour Appellate Tribunal gave rise to the demand by leaders of working class that any further continuance of it would not only be detrimental to the interest of workers but would also hamper peaceful industrial relations in the country. The divergence of views between workers' organisations and employers' organisations with regard to the proposed abolition have been given in considerable detail. The workers' organisations conducted almost a campaign for abolition in 1954-55. The lead was taken in this connection by the INTUC and the demand was supported by the other organisations of workers, their main objection to the Labour Appellate Tribunal being that it often took six to eight months to dispose of an appeal and sometimes even more, involving heavy expenditure and inconvenience which the workers could ill afford to bear owing to lack of staying power. Employers' organisations on the other hand went on urging the retention of the Appellate Tribunal. They contended that though cumbersome in its procedures, it had been a stabilising force and that with its abolition there would be no case law that could serve as a guide to an erring judge. The decision to abolish the Labour Appellate Tribunal was taken after a very illuminating debate in the Lok Sabha as well as Rajya Sabha and became effective on September 1, 1956.

The third part of the publication surveys the industrial relations after the abolition of the Appellate Tribunal for the period between 1957-61 and deals with the Law Commission's recommendations for provision for appeals. The employers again in 1958 posed the question of revival of the Labour Appellate Tribunal stressing its need in view of the widely varying and often conflicting decisions of different tribunals in the various States which had resulted in a large number of references to the Supreme Court. They also made out a strong case for revival, stressing that judges of tribunals had generally very little background of the issues they were dealing with. The Law Commission's recommendations with regard to the revival of the Labour Appellate Tribunal was followed by an assessment in 1960, of the relevant factual material in favour and against the revival. The proposal for revival was considered finally at the 19th session of the

Indian Labour Conference held at Bangalore on October 9 and 10, 1961 and dropped.

The publication reveals how complex is the problem of making public policies concerning basic problems which persist over a period of time, how difficult it is to take into account, before formulating any policy decision, the conflicting interests through tripartite institutional arrangements. It brings out the influence of a multiplicity of factors and underlines the fact that there is no finality to the decisions concerning public policies. Decisions have to be reviewed as a part of the continuous balancing of conflicting pressures of different groups. It also amply illustrates the efficacy of the mechanism of the tripartite machinery adopted by the Government to accommodate the rising pressure of the two interest groups and thereby reducing the Government's own involvements in the conflict.

The chronology of the main events and summary of the important Labour Appellate Tribunal awards given in the concluding portion of the publication will serve as a mine of very useful information to students of Indian labour problems.

Views and comments on the various aspects of the problem have been extensively quoted in all the three parts of the publication. A judicious pruning of these could have made the publication a bit more handy.

*Mr Kale is Deputy Chief Labour Commissioner, Government of India.*

## PROGRESS: HOW GRADUAL

*Progress Versus Utopia by John A. Vieg. Asia Publishing House. 84 pages. Rs. 10.50*

C. N. Chitta Ranjan

CRITICS of planning do not tire of blaming policies when performance goes wrong or proves short of expectation. The most noticeable fact about planning in India is the wide gap between aim and achievement as in the crucial sphere of agricultural production. The aim itself, because of the many limiting factors, does not measure up to the vast needs of our huge and ever-growing populations, the bulk of which is still on the poverty line. The plea that our planners have set the targets too high cannot therefore be seriously sustained. Whatever the content of the Plans, there is little chance of achievement if dedication and ability are lacking at every level of implementation. A bureaucracy holding fast to outmoded concepts of administration inherited from a colonial era can only make a mockery of planning. Among those charged with executing development and welfare schemes in India, few have a burning faith in the ideal of a socialist society or the zeal to work without wearying. Thus one of the prerequisites of the success of planning is largely absent in India.

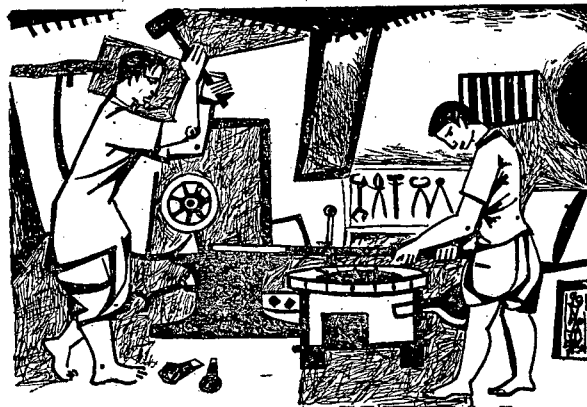
Professor Vieg's first proposition is that economic development plans should be drawn up "realistically" based on "sober calculation of what can be accomplished during the given working period in the light of the techniques, facilities and personnel likely to be available". Planners, he says, require the courage neither to attempt nor to promise more than can be accomplished with the available resources: "The highest function of the politicians is to help the people dream great dreams... It is the administrators' role... to advise the politicians regarding practical considerations so that popular expectations may be held within reason..." But the politician's duty could well be to seek the speediest and most effective ways of lifting the people out of poverty and the administrator's to help him lay hands on all possible resources to get this done. This might not occur to Prof. Vieg with his American distrust of the possibility of the State tapping the secreted wealth of the few. To him, "available resources" would mean what is seen to be available on the surface.

Professor Vieg is an advocate of "incrementalism" which must be understood to mean small annual doses of progress. He is opposed to speedy changes which may upset the balance and one suspects he means upsetting the imbalance. "Gradualism is the key to genuine progress." Agreed, but how gradual? What is the time-limit for poverty to be abolished? To these questions Professor Vieg provides no answer. Perhaps we should not expect an answer from one who thinks that a 20-year plan formulated in even such a fast-progressing country as the U.S.S.R. is fantastically utopian. At any rate isn't there a little too much of "incrementalism" in our planning?

For India Professor Vieg has a few special words. Among the preconditions for progress which he lays down are these: 1. People must believe that their present existence (on earth) is worthwhile for its own sake and not merely as a preparation for some life to come. 2. No substantial progress can be made if man believes Nature to be arbitrary or capricious and that she continuously needs to propitiated. 3. Where social institutions have been all-powerful, their authority must at least cease to be unquestioned... And where there have previously been rigid class distinctions, they must at least have begun to lose their prestige before any tangible progress can be made. Professor Vieg is careful not to say he means India, but then the lectures were delivered here under the auspices of the Indian Institute of Public Administration. The references to Indian history and philosophy suggest that the author is familiar with only one school of interpretation of Indian society.

Knowing the predilections and limitations, it would not be right to ask of Professor Vieg that he should sift the good points of the two rival systems and work out a synthesis. It is precisely because India is attempting to do this, however falteringly, that he probably finds it difficult to see the reality as a whole.

*Mr. Chitta Ranjan is Editor of "Mainstream"*



## Small Industries—Introduction

*A Guide To Small-Scale Industry by P.M. Bhandari. Published by Ramesh Industrial Agencies, Nayapura, Kota. Pages 350. Rs. 6*

### Amicus

THE book as amplified in the Introduction does not attempt anything more than piecing together 'information important to small-scale industries'. None will deny that during the course of the short history of modern small industries a plethora of official agencies has cropped up. A number of pronouncements have also been made by the Central and State Governments to grant the small industries one type of assistance or another.

It is difficult for the small entrepreneur to understand and appreciate the thin line drawn between the functions of the Centrally-sponsored agencies and those of the State Directorates of Industries. In some States the two vie with one another. That a compendious publication was required to guide the man with the small means out of this morass of confusion needs no emphasis.

The author has attempted to compile heterogeneous information from different sources which does not necessarily fulfil the objectives enunciated in the introduction. For instance, the first chapter, "Industrial policy of the Government" is sketchy and does not do justice to this important subject. The chapter on Industrial Development in the three Five Year Plans gives only Plan outlays borrowed from official Plan documents and leaves the reader to draw his own conclusions.

The author leaves the reader equally disappointed in subsequent chapters. The material culled from official documents is unintelligently pieced together—for example pages 20 to 22. The author is also oblivious of changes which have occurred in Government rules and procedures and the inaccuracies that have crept in his statements. For instance, on page 32, he states that all small industries, existing or new, are required to be registered with the State Industries Departments. Such registration, however, is limited to only firms as might be seeking Government assistance. Similarly, information given on

page 119 relating to sales depots run by the NSIC is outdated.

In chapters VII to IX dealing with credit and financial assistance, one reads all over again details repeatedly brought out in official publications such as "Credit Facilities" issued by the CSIO, "Hire Purchase Scheme" by the NSIC etc. The chapter on Industrial Estates makes dull reading. The chapter on Research and Training breaks no new ground and one is left with greater confusion. Chapter XIII on Labour Legislation reproduces what is contained in the Acts and throws no more light on labour conditions and problems in the smaller industries.

It is not understood what the author had in mind for including "Industrial Potentialities in Rajasthan" in this publication. One wonders if it has to say anything more than the Techno-Economic Survey completed for that State by NCAER or the smaller area studies prepared by the CSIO for the State Government. For explaining State procedures and administration, the book draws heavily on Rajasthan for no ostensible reason except perhaps that the author is serving that State. This limits its usefulness to entrepreneurs from other States.

## A COMPETENT ANALYSIS

*Small-scale and Household Industries in a Developing Economy by M.C. Shetty. Asia Publishing House. 232 pages. Rs. 16.*

MR Shetty's survey of household and small-scale industries in the Amaravati district of Maharashtra was presumably initiated five years ago and it was published only in 1963. Meanwhile a number of other surveys and studies have been completed and published, and the author does not seem to have revised his original draft in the light of subsequent developments. Otherwise he would not have complained of the (near absolute) lack of the kind of data he wanted. For, though a larger volume of data is welcome and necessary, the position is not as bad as he makes it out. It goes

to Mr Shetty's credit, however, that he has divided his attention equally between household and small-scale industries. Most economic research, this is true of the research undertaken by Government Departments, has tended to be devoted mainly to the small-scale industries. In comparison hardly any scientific surveys have been made of the cottage and household industries. One reason, of course, is that being relatively better organised, small-scale units are more easily accessible. While it is true that small-scale units and household and cottage industries cannot be easily demarcated, still the distinction is broadly clear and it may be worth-while recognising it.

As may be expected, the book opens with the rationale of household and small-scale industries in India, which by now is well known. Perhaps the real problem is how to manage the transition and to transform the technically backward into modern efficient enterprises. There is perhaps no longer any need to begin every study from the beginning and dutifully to wade one's way through the rationale, the outline of the survey and the analysis of the findings and to end with recommendations and suggestions. Even the analysis of the problems and the remedies suggested, when generalised, make a familiar pattern. The merit of Mr Shetty's labours, therefore, is not so much his statement of the problem or of the rationale or even his prescription for the various ailments of the small industrial establishments, as his searching enquiry into the problems and operating conditions in certain areas of Amaravati.

The author has conducted the survey on more or less accepted lines. Starting with a brief discussion of conceptual difficulties, which are best left unsolved, he probes into the analysis of ownerships average size by capital and employment, method of acquisition, productive capital employed, composition of capital and so on. Then he presents data regarding idle capacity in the household and small-scale industries. It was found that idle capacity was substantial in both, but much larger in the latter. It is very difficult to say how far this was due to difficulties in measuring capacity, particularly in the household sector. The author's contribution in respect of the analysis and break-up of the inputs of these industries is an effort in a new direction. The usual derived ratios like capital-output ratio, capital-labour ratio, labour-output ratio, etc. are also attempted. As is well known, the construction of these ratios is bedevilled by a number of pitfalls, both conceptual and practical. If they are still attempted, it is, it so seems; because a ritual has to be gone through and not because they can serve any practical end. A comparison of ratios derived from surveys in different areas may not throw up a consistent pattern. The Amaravati capital-output ratios in any case appear to be very much on a low side as compared with similar ratios derived for Bombay by Prof. Lakadawala and Dr Sandesara and for Delhi by Prof. Dhar.

It is very difficult to pinpoint any problems and operating conditions special to the area as revealed by the study. The author has not made any intentional effort to bring them out. Similarly, having stated that the objective of the survey was "to verify the tentative conditions" regarding the rationale etc. of household and small-

## QUOTATION BOX

A judge must approach his task with humility and with the full knowledge of his fallibility. On the portals of every court-house should be engraved the words of Oliver Cromwell who said, "I beseech you in the bowels of Christ, think that ye may be mistaken."

—Mr. Justice Gajendragadkar of the Supreme Court

Indian wit and cynicism make better conversation (than in China) but they are not so helpful to economic development.

—Mrs Joan Robinson, after a visit to China

They (politicians) should be fair, honest, dependable, letting their executives contribute ability.

—Mr. Kamraj quoted in "The Statesman"

The Madurai Municipal Council today resolved in favour of the usage "sanitary menials" to describe the lower categories of the municipal mental health staff who were hitherto referred to as "depressed classes".

—Report in "The Hindu"

In creative work like science, perhaps it is somewhat better to give opportunities of leadership to younger people than to follow the government's example of giving too much credit to age and seniority. Quality is often sacrificed in the name of seniority.

—Prime Minister Nehru at the Science Congress

Many of our difficulties have been created by the absence or neglect of the two basic social qualities of thoughtfulness and sincerity.

—Dr. Zakir Hussain

Five thousand families depend upon the circus for their livelihood but they have no security because insurance firms do not take the risk of ensuring circus artistes...How are we a greater risk than, say, a pilot?

—Mr. C.V. Sreedharan, a circus artist

Operating from an expensively built multistoreyed structure the (Planning) Commission was encroaching the powers of the ministries and "disturbing the relations between the Centre and the States" although it had no constitutional authority behind it.

—Press Trust of India report of a speech by Mr Ashok Chanda, former Auditor-General, to the Forum of Free Enterprise

Kashmir is of no use to India.

—President Ayub Khan

Cultivators, taluk development board members and Panchayat presidents and vice-presidents were almost totally absent at the Raichur taluk Panchayat agricultural production plan seminar held here (at Raichur, Mysore State) on October 11.

—Report in "The Hindu"

scale industries, the author should be reasonably expected to follow up his analysis of survey data by a discussion as to how far the statistics bear out his tentative conclusions. This has not been done; and a serious chink remains in the framework of the study.

We may show some indulgence to the author in regard to the spacious title he has chosen for his work. After all everything is in and a part of the Developing Economy.

All in all a good book written in a clear, lucid style. Even the well-worn issues have been handled competently and it is refreshing to come across a deft and tidy summing up of the familiar views and arguments. Of course, the heart of the book is the findings of the survey proper which are a useful contribution to the knowledge on the subject.

M. R. K.

## BOOKS RECEIVED

*International Trade Theory in a Developing World* edited by Roy Harrod and D.C. Hague. Published by Macmillan & Co. Ltd., Bombay. 570 pages. 70s. net.

*Gandhian Economic Philosophy* by Bepin Behari. Published by Vora & Co. Bombay. 157 pages. Rs. 8.00.

*Land Reforms in West Bengal* by Basu & Bhattacharya. Published by Oxford Book Company, Calcutta. 125 pages. Rs. 15.00.

*Agricultural Income By States 1960:61* 88 pages. Rs. 6.00. *Contractual Saving in Urban India*. 119 pages. Rs. 7.50. *Reappraisal of Steel Demand*. 184 pages. Rs. 12.00. *Techno-Economic Survey of Maharashtra*. 295 pages. Rs. 20.00. *Tehno-Economic Survey of Gujarat*. 2.0 pages. Rs. 20. All published by National Council of Applied Economic Research, New Delhi.

*Rationalisation* by G. Ramanujam. 59 pages. 45 nP. *Workers Participation in Management* by Mrs. Mary Sur. 27 pages. 30 nP. *Works Committee Member's Handbook* by Mrs. Mary Sur. 40 pages. *Trade Union Structure* by V.B. Karnik. 38 pages. 30 nP. *Indian Trade Unions Act 1926*. 16 pages. *Trade Union Finance* by V.B. Karnik. 37 pages. 30 nP. *Grievance Procedure*. 46 pages. *Discipline in Industry*. 26 pages. 25 nP. *Productivity: What? Why? How?* by A.A. Niazi. 31 pages. 30 nP. *Payment of Wages Act 1936*. 17 pages. *Minimum Wages Act 1948*. 19 pages. *Training For Employment*. 23 pages. 25 nP. *Employees' State Insurance Scheme*. 20 pages. 25 nP. *Workmen's Compensation Act 1923*. 28 pages. 30 nP. *Industrial Housing*. 59 pages. 45 nP. *Industrial Health And Safety*. 44 pages. 40 nP. *Labour And the Plan*. 40 pages. 30 nP. All published by Central Board for Workers' Education, Ministry of Labour and Employment, Nagpur.

# PARBOILED PADDY

## Better Nutrition & More Profit

V. BALU

*New method evolved by Food Research Institute which removes the odour of parboiled rice and increases food availability*

BOILING and parboiling (partial boiling) of paddy have been popular in India, Pakistan and Burma through the ages. Highly regarded by pioneering generations as contributing to health, the practice of parboiling was followed in India as an easy household method of de-husking paddy. Even today the process is used extensively in Madras, Bengal, Orissa and Kerala, and a good proportion of the paddy produced in the country is "boiled". Big and small parboiling mills dot the important rice-growing parts of the country and parboiling has become one of the important food industries.

The customary method of parboiling consists in thoroughly soaking the paddy in cold water for two or three days, followed by steaming till the grain becomes soft and partially cooked. The steamed paddy is then dried in the sun, and milled to obtain the parboiled rice.

Parboiling not only makes removal of the husk easier, but also makes the rice harder than raw rice. As a result, coarse and soft varieties of rice, which undergo high breakage during milling, give maximum yields of head rice (whole rice) when parboiled. Even the hard varieties of rice give higher yields of head rice; the yields vary from 5 to 10 per cent, depending on the variety of rice.

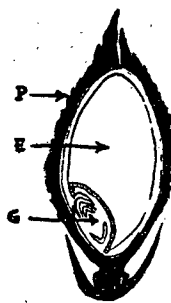
Known variously as *puzhungal arisi*, *puyungal ari*, *kusubala akki*, *uppidi biyum*, *siddha chaval* and *sela chaval*, parboiled rice is slightly coloured, harder than the original rice grain, and possesses a smell which ranges from a faint non-descript type to a definitely disagreeable odour. Habitual consumers of the

rice have got used to this undesirable smell in the absence of a better quality product, but those accustomed to raw rice do not favour it. Elimination of the offensive odour will create a bigger demand for parboiled rice and make it universally acceptable.

### Improved Method

Scientists have found that the offensive smell is the result of fermentation which occurs during the soaking of paddy in cold or tepid water prior to parboiling, as well as due to improper drying of the rice in the commercial process. Work at the Central Food Technological Research Institute (CFTRI), Mysore, has resulted in the evolution of a quick and improved method of parboiling according to which the paddy is soaked in water at 70-75° C for three hours. This method has been found to eliminate completely the offensive odour.

An even more important fact is that this principle has been found capable of easy application in rice mills, without effecting elaborate modifications in existing units. All the change that is required is to fit steam distribution pipes to the steaming kettles and making them watertight, as a result of which the paddy could first be soaked and then steamed in the same tanks, after the discharge of the soak water. (In the traditional method, the soaking is done in cement tanks and the steaming in separate iron kettles). This improved method has been accepted by rice mills as satisfactory, as it results in larger turnover and effects economy in operation costs. Also, it helps in the hygienic and clean maintenance of the soaking tanks and the mill premises.



*Longitudinal section of a rice grain. P=pericarp or outer layer. E=endosperm or inner part. G=germ or embryo.*

A commercial parboiling unit has been installed in the Tanjore district of the Madras State. The product produced by this improved method is absolutely free from off-flavour, is translucent and of excellent quality. A fully mechanised pilot plant unit for parboiling paddy, which includes a drier, has been developed by the Food and Technology Division of the Jadavpur University, Calcutta.

### Value Enhanced

Advances in nutritional science have confirmed the traditional belief that the nutritive value of rice is enhanced as a result of parboiling. The outer layer (pericarp) and the germ of the rice grain are richer in vitamins of the B group and in protein than the inner layers. During milling of the raw rice, the nutrients present in the germ and outer layer are lost with the bran and the husk, resulting in the highly polished white rice which, though pleasing both to the eye and the palate, is depleted of its nutrients. Rice eaters in urban areas tend to prefer milled, polished rice to undermilled or hand-pounded rice because of the justifiable impression that completely unpolished rice causes digestive disorders. This is borne out by experience and the consumers do not mind sacrificing some nutrients in order to avoid digestive troubles that would ultimately require medical attention.

During parboiling, the nutrients in the outer layer and the germ diffuse into the grain and are retained even after polishing. There is therefore more vitamin B<sub>1</sub> and other B-complex vitamins in milled parboiled rice than in raw rice polished to the same degree. The process of parboiling places at the disposal of people who have a passion for milled rice, a type of rice which can be

highly milled and possesses, at the same time, most of the nutritive properties of undermilled rice, thus providing more wholesome nourishment.

### Prevents Beri-Beri

Beri-Beri has not been noted among people consuming parboiled rice as a basic part of their diets. Caused by lack of vitamin B<sub>1</sub> in the diet, beri-beri is a disease of the nerves leading to paralysis of the limbs, often accompanied by weakness of the heart muscle. Beri-beri is prevalent in areas where milled raw rice is used.

In the common practice of washing rice before cooking, the greater part of its vitamin B<sub>1</sub> is lost, while this loss is considerably less in the case of parboiled rice than in the case of raw rice. Studies have shown that washed parboiled rice contains, on an average, four times as much vitamin B<sub>1</sub> as washed raw rice. The cooking of rice causes further losses of nutrients, when too much water is used and the excess cooking water thrown away. Again, studies have disclosed that even when the cooking water is discarded, cooked parboiled rice contains enough vitamin B<sub>1</sub> to prevent the occurrence of beri-beri.

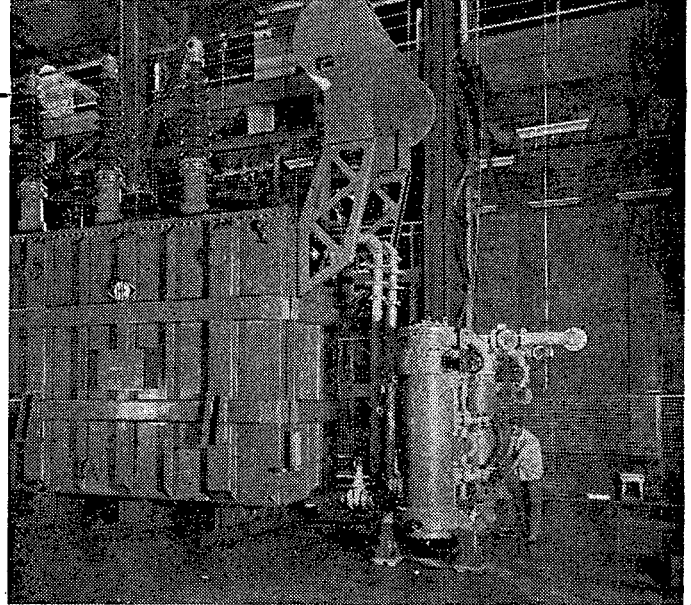
In parboiled rice, the cooked grains stand apart, without sticking to each other, and this is a point that habitual users count in its favour.

About a third of the total production of rice (25.5 million tons in 1955-56) is marketed as parboiled rice. Dr. V. Subrahmanyam, Director,

## Bhopal's

New

Giant



This giant-size transformer of 75,000 kVA (13,800/132,000 volts), the biggest ever made in India, has been recently manufactured by the Heavy Electricals, Bhopal.

Completely designed and built by Indian engineers, this huge equipment, weighing 106 tons, has been made for the Talcher Thermal Power project of Orissa. Five more such transformers are under manufacture for Orissa and Maharashtra States.

One such transformer is capable of meeting the entire power requirements of a big industrial city like Kanpur.

With the manufacture of this transformer, the Bhopal factory has completed one hundred units of transformers of capacities ranging from 750 kVA to 75,000 kVA within less than three years of its working.

Central Food Technological Research Institute, Mysore, says: "If the proportion of rice that is parboiled is increased to cover about half of the total production, *this itself would mean an increase in the output of rice by an extra 2 lakh tons; equivalent to 10 crore rupees.* Actually the present

situation in the country calls for the formulation of a national policy extending the practice of parboiling to the entire rice produced in the country, since more rice and more nutritious rice could be made available from the same stock of paddy than in the form of raw rice."

## SHAMBU—by Malinda Topa

## Departmental Exam.



# DIESEL OIL—and what some dealers do

SOME controversy has been going on in the press in respect of correct retail selling rates of petrol and high speed diesel oil in Delhi. Delhi Petrol Dealers' Association has been asking the Government to fix prices of petrol and H.S.D. on "per litre basis." The Government has not been able to accept this request so far. To understand the points of difference a few facts are mentioned below.

It is the Oil Companies which advise the petrol dealers the correct selling rates to be observed by them. Prior to the introduction of the metric system, the rates of petroleum products were based on per *Imperial gallon*. But the current practice is that the dealers are billed by the Companies on the basis of per *kilolitre* whereas the dealers retail in the market in multiples of litres. The current selling rate fixed by the Oil Companies for petrol is Rs 842.26 per kilolitre (1 kilolitre is equal to 1,000 litres) and that for H.S.D. oil at Rs 713.39. On this basis rates per litre work out to 84.226 naye Paise for petrol and 71.339 naye Paise for H.S.D. oil. As it is not possible for the dealers to recover fraction of naya Paisa, they have rounded off the price to 85 naye Paise per litre for petrol and 72 naye Paise per litre for H.S.D.

The monthly average sale of H.S.D. in Delhi is 6,000 kilolitres and that of petrol 5,000 kilolitres. Rounding off the figures to the next higher naya Paisa, the dealers are recovering Rs 720.00 per kilolitre as against Rs 713.39 for H.S.D. In this way, they are over-recovering a sum of Rs 6.61 for every kilolitre. Multiplying this over-charge by the total sale of H.S.D. in Delhi the total works out to 6,000 × Rs 6.61 = Rs 39,660 per month.

Similarly, in the case of petrol, the actual recoveries made are Rs 850 as against the Company's official selling rate of Rs 842.86. The over-charge in this case is Rs 7.14 per kilolitre which works out to 5,000 × Rs 7.14 = Rs 35,700 per month.

## A GOOD CASE FOR CONSUMER EDUCATION

G. L. Malhotra

For a period of one year the over-recovery amounts to—

For H.S.D.	Rs 4,75,920
For Petrol	Rs 4,28,400
<b>Total</b>	<b>Rs 9,04,320</b>

This is by no means a negligible figure. Taking into account the sale for big cities like Bombay, Calcutta and Madras the over-charge can be multiplied several times. As this rounding off is not limited only to the important cities mentioned above the overall figure of over-charge made on an all-India basis may run into several lakhs of rupees, in fact, it may even be near about a crore of rupees.

The dealers wish to pocket the over-charge involved. The fair approach to the problem would be for the dealers to refund this amount to the consumers. But as the amount involved is large and so is the number of consumers, the problem presents practical difficulties. The remedy could be to ask the Oil Companies to fix the retail selling rates in complete figures of naye Paise per litre and refund the overall saving to the Central Government for utilisation for consumer education.

## Sales Trick in Wheat Flour

MANY customers in Delhi have presently been paying unfair price when they buy wheat flour, one

of the daily necessities of life. Atta produced by mills, on which there is a statutory price control, is retailed as Chakki ground Atta on which there are no price restrictions. The controlled rate of mill Atta (whole-meal) is 43 naye Paise per kilogram whereas the Chakki Atta is sold at 60 naye Paise per kilogram. By selling mill Atta as Chakki Atta, a retailer makes a profit of 17 naye Paise, i.e. almost 40 per cent.

This practice is mostly prevalent in colonies where people show a preference for local-wheat and are prepared to pay higher prices. This racket has now become a regular feature and calls for immediate curbs by the administration. Shops which sell mill Atta should display prominently a placard showing the brand and the name of the mill. The retail price also should be prominently displayed.

Even in the mill Atta, there are two varieties: wholemeal and resultant. The latter quality is the wheat flour from which Maida and Sooji have been taken out. The resultant Atta is sold cheaper than the whole-meal variety.

## ON THE AIR

AT the suggestion of the Non-Official Price Intelligence Service and through the good offices of the Planning Commission, the All India Radio has agreed to introduce consumers' forum as a fortnightly feature in their broadcasting programme. The first programme under the series 'Gharaur Bazar' was broadcast on September 20 last from 20.40 p.m. to 20.55 p.m. on Delhi A.

The session consisted of a discussion in Hindi and highlighted the problems of consumers in relation to rising prices of the essential consumer commodities. It was brought out that consumers should not get panicky and should not be led away by baseless rumours even if some items became scarce temporarily. It was their duty to substitute commodities which were more freely available.

Consumers were advised to insist on seeing the price lists which every shopkeeper was required to exhibit prominently and buy only where the prices were fair. They should patronise consumers' co-operative stores wherever they existed and organise more in their respective localities.

The second discussion, which was put on air on October 4, covered the subject of adulteration and the steps which can be taken to protect consumers' interests.

# What Price Should Primary Store Charge ?

V. V. SHETTY

ON the basis of a pilot survey of a few consumer stores in Delhi, which revealed that the rates quoted by the consumer stores are more or less on par with the rates of private traders, Mr. G.L. Malhotra of the Bharat Sevak Samaj has said (*Yojana* September 15, 1963, Page 17) that all was not well with the consumer stores and they had not made any impact on the price line.

The purpose of this brief note is to show that consumer societies need not be considered a failure or inefficient merely because the rates quoted by them are not "distinctly" lower than those of private retailers. In fact if consumer co-operatives are to run as a business and provide incentives to their members, it is desirable that their prices are not too far below the private traders' prices.

There are two main reasons why consumer stores may not be able to reduce their prices much below the market rates.

In the first place, if the primary societies are to make their own purchases in the general market and in small quantities, the best of them can do not better than the private merchants. It is for this reason that the present scheme makes one wholesale society responsible for catering for 20 primary societies. Wholesale societies are to make bulk purchases when the prices in wholesale markets

are low and keep enough stocks to meet the needs of primary units.

Granted that the wholesale societies are able to feed the primary stores as stated above, let us see what should be the proper price policy for the latter. When the primary societies depend on the wholesale societies for the supply of commodities, they will naturally be in a position to sell them at lower rates compared to the traders, as they are not interested in large profits. But by doing this they will run into difficulties; they will soon exhaust their stocks because the private traders or their agents can buy all their stocks and resell at higher rates later on. Even the wholesale societies will not be able to meet this situation unless they have the monopoly of wholesale trade. Of course, the primary societies can issue identity cards to genuine consumers. But besides being a botheration there is no guarantee that this will not lead to further malpractices.

On the other hand there are definite advantages for the primary societies in deliberately maintaining the prices on the same level of the private traders or slightly lower provided the members have full faith in their societies. By keeping their prices slightly lower than those quoted by private traders the societies can force the former to bring down their prices. Secondly, if the primary consumer stores adopt a no-profit-no-loss policy their members do not get any advantages over other consumers who are also allowed to purchase from these stores. If on the other hand the societies make profit as a result of their policy of adjusting their prices according to the market rates, this can be distributed to the members in the form of bonus or dividend. This will be an incentive for other consumers to become members of the society and by doing so they will strengthen the organisation in addition to helping themselves.

It need not be feared that by making profit the consumer societies will lose their sense of service. Much depends on the people who manage the societies. There are many societies which neither show profit nor serve the people. The very nature of the consumer societies calls for a commercial bias without which there is every danger of their ceasing to function effectively.

# Workers & the Price Line

MOHD. ARIF KHAN

THE present inflationary phase through which Indian economy is passing has touched upon the arena of labour as well. But the solution to the problem of high prices cannot be found in the pressing demand for higher wages, since it will create unnecessary burden on the industry. Secondly, higher wages will in no case help to hold the price line, but rather will help to raise it.

It seems that neither political agitators nor labour leaders have taken pains to consider ways and means to combat the inflation on constructive lines. They have concentrated their energy on demanding 'higher wages'. There are, however, a number of ways in which there can be a surplus budget, without any increase in the existing wages. In other words, there are a number of substitutes of higher wages, and Co-operation is one of them.

When we look into the items of expenditure of working class people we find that major items are: food, housing, clothing and interest on past loans. As a substitute of higher wages, ways and means can be found out through which good quality goods may be purchased at low rates, good houses are available at reasonable rents and loans are granted on fair terms. This will automatically lead to substantial balance in the existing-so-called 'low wages', which are frequently spent on adulterated food at high prices, exorbitant rents for dark and filthy tenements, and interests on life-long loans. In spite of the fact that workers (as all other consumers) are aware of the exploitation by 'trading community', they have not yet realised the potentialities of combining together for undertaking the business themselves and doing away with the exploiting class. In other words, they have not yet

applied 'co-operative approach' to the problem.

A countrywide movement to organise consumers' co-operative stores has already been launched as an effective means to hold the price line. But a word of caution will not be out of place. It is observed that such societies disappeared soon after normal conditions set in. A number of co-operative societies for the industrial workers formed during the last World War were liquidated as soon as the war was over. During the last decade, when prices were on the peak, co-operative movement got momentum. Now, during this period of Emergency, there is again a spurt of co-operatives. Does it indicate that in India the importance of co-operation is felt only in abnormal times? The Government should take note of this trend and make reasonably certain that at least current membership is maintained even after the Emergency is lifted and price situation stabilises.

The various forms of co-operation, which will help the industrial workers are discussed briefly here:

#### CO-OPERATIVE STORES

The need of co-operative stores for the industrial workers within the factory or in the labour colony should be admitted straightaway in view of high prices of articles of necessity. These stores have the advantage of supplementing their

wages by indirect non-wage benefits. The stores will save the workers' time in shopping at odd places and odd times, and supply them pure commodities at low prices, thus giving the advantage of 'cheap and best'. Their wages will further be augmented by the annual profits of the societies which otherwise would go to the middlemen. The societies will also offer the advantage of credit sale to the workers who have not always ready money at the time of purchases.

So far, 318 co-operative stores have been organised for industrial workers in the various States and Union Territories. For coal miners, there are 1,000 co-operative societies in the various coal fields. For sugar industry workers of U.P., a programme for setting up a network of such stores is being implemented. The representatives of the Government, trade unions and employers' organisations have recently reached an agreement for immediately opening special stores for industrial workers. About 2,000 such stores are expected to be set up in a month by industrial establishments employing more than 300 workers. Trade Unions have been assured of all facilities in case they wished to start a co-operative of fair price shops. The emphasis should be laid on the role of trade unions to undertake co-operative work, because the spirit of co-operation is a thing which should come from within.

#### OTHER SOCIETIES

Housing is another field for workers' co-operatives. The potentialities of co-operative housing societies are well illustrated by the successful experiment at Harveypatti near Madura. Apart from providing modern amenities of life such as parks, schools, libraries, markets, hospitals etc., the society has also provided an opportunity for the workers to own the houses, after occupying them for a certain period.

The evil of indebtedness, commonly found in the industrial workers, can also be removed by co-operative effort. The credit societies will also mobilise small savings among its members.

Another sphere in which co-operation can play its role is in providing wholesome food and tea to workers during the working hours in the factory. The existing canteens are

mostly owned by the employers. They should be transferred to workers. The daily requirements of canteens can be drawn from the co-operative societies.

Lastly, all the labour welfare activities can be carried on by means of the co-operative method. Sports, recreation, better-living methods, cultural and educational activities are rich pastures for co-operation to exploit.

In the initial stages, co-operative societies should receive substantial aid from employers as well as from the Government. But the general policy should be to make the movement independent of any outside help. The workers should themselves realise the need of forming these societies. It is high time for labour leaders, trade unionists, political thinkers and fellow co-operators to divert attention of workers to organising various co-operative societies.

### FORTNIGHT IN YOJANA BHAVAN

ON an invitation from the National Institute of Health, Bethesda, U.S.A., Professor M.S. Thacker, Member (Education & Health), Planning Commission, left for Washington on October 16 to take part in the international conference to be held there from October 31 to November 2. On his way he will visit Prague for finalising the arrangements for Czech assistance to the Central Machine Tool Institute, Bangalore.

Professor Thacker will also go to London for discussions on the British assistance to the Indian Institute of Technology, Delhi. On his way back he will attend a meeting, in Paris, of the executive committee of the International Union for Research and Development of which he is the chairman.

Professor Thacker will return to Delhi on November 7.

Professor A. Doucy, Director, and Professor P. Feldheim, Secretary, Institute of Sociology, Brussels, now in India as guests of the Indian Council for Cultural Relations, came to Yojana Bhavan on October 15 and met Mr Tarlok Singh, Member (Administration & Transport).

On an invitation from the Lok Sabha Secretariat an eight-man British Parliamentary delegation spent four days (October 16-19) in India on their way to Kuala Lumpur to attend the Malaysia Commonwealth Parliamentary Conference. They visited Yojana Bhavan on October 19 and met the members of the Planning Commission.

Mr Salah EL-Assir, Adviser to the Government of Lebanon, who spent a month in India on a study tour under the aegis of the Indian Council for Cultural Relations, came to Yojana Bhavan on October 7 and met Mr U.S. Rana, Director, Liaison, Planning Commission. (Up to October 19)



*Fifty per cent more, provided I get the seed from the Gram Sahayak, the loan from the society, the fertiliser that the Gram Sevak promised, and the new plough that the agricultural officer has been promising.*

# HMT III Begins Work at Mughal Garden City

The third factory of Hindustan Machine Tools has gone into production at Pinjore in the Punjab.

The special feature of the Pinjore factory is that HMT has set it up *all out of its own resources.*

Also a model among public undertakings, H.M.T. had earlier set up a second factory in its home town, Bangalore, similarly out of its own resources.

Pinjore, famous for its Mughal gardens, can now go a long way in furnishing the tools for the enterprising people of the Punjab to finish their job of work.

## Big Spurt in Machinery Output

The production of textile machinery this year (at Rs 27 crore) is likely to prove double of what it was in 1962. The country also produces sugar mill machinery worth Rs 6.43 crore, chemical and pharmaceutical machinery worth Rs 3.67 crore, tea processing machinery worth Rs 1.65 crore, industrial boilers worth Rs 2.62 crore, agricultural machinery worth Rs 1.42 crore and cement machinery worth Rs 71 lakh.

NPCC, the National Projects Construction Corporation, completed and had in hand works valued at Rs 40 crore at the end of March 1963. It made a profit of 9 per cent in 1962-63 as against 5.5 per cent the previous year.

The State Trading Corporation made a profit of Rs 1.41 crore on a gross income of Rs 6.76 crore in 1962-63. A dividend of 10 per cent has been declared as in the previous year. The turnover in the commodities directly traded amounted to Rs 86.81 crore and indirect trade was valued at Rs 55 crore.

The Hindustan Aircraft Limited, Bangalore, saved foreign exchange worth Rs 8 crore in 1962-63. It uses imported components worth only Rs 2,500 for manufacturing an engine costing Rs 1.5 lakh. The factory made a profit of Rs 94.5 lakh last year.

### WE EXPORT RAILS

*About 1,200 tonnes of rails, manufactured by the Bhilai steel plant, have been exported to Africa for use by the Sudan Railways.*

*This is the first time that our rails have been exported on a commercial basis. The consignment, valued at Rs 55 lakh, forms part of a deal for the supply of 12,500 tonnes of rails to the Sudan Railways.*

## 4-Point Progress

LAST year, four key industries—steel, coal, power generation and railways—showed considerable improvement. The production of STEEL rose to 3.9 million tonnes. COAL production was 64 million tonnes as compared to 55 million tonnes in the previous year. The increase in generated POWER was 10 per cent and 4,900 more towns and villages were electrified. The RAILWAYS moved 11 per cent more traffic and production of wagons increased from 19,000 to 26,000.

*The 740-ft. high Bhakra Dam — the main component of the Bhakra-Nangal project in Punjab — was dedicated by the Prime Minister on October 22.*



## LOANS

- from US for Power
- from UK for Tools
- from USSR for Oil

THREE thermal power projects—Bandel (near Calcutta), Dhuvran (in Gujarat) and Birsinghpur (in M.P.)—will get Rs 24 crore as loans from the U.S.A.

The three projects will together add 665 mW of installed capacity. The loans will be given from the sale proceeds of U.S. agricultural produce under PL 480. Earlier, U.S.A. had provided 80 million dollars (Rs 38.1 crore) to meet foreign exchange cost of equipment for the projects.

The fourth power unit (capacity 50,000 kW) of the Neyveli thermal station will be switched on early next month. Three units of 50,000 kW each are already functioning.

The U.K. has given a credit of 4 million pounds (about Rs 5.33 crore) for buying machine tools, spares and components of machinery of British make by India.

Under a contract signed recently, the Soviet Union will supply oil exploration and production equipment worth Rs 8 crore.

## New Avro Series

The Aircraft Manufacturing Depot of Kanpur, which has now been made a public enterprise under the Defence Ministry, has started work on the second series AVRO-748 aircraft.

The Depot has also undertaken the manufacture of the single-seater gliders of ITG-3 type designed by the Directorate-General of Civil Aviation.

So far 30 two-seater Rohini gliders have been produced.



PRIDE OF PLACE—93

# Wood Carvings of Saharanpur

WOOD carving occupies an important place among the ancient crafts of India. Old, richly ornamented wooden doors, chariots, etc. are still found at many places showing the heights to which this ancient craft had reached. Specimens of excellent craftsmanship in architectural wood carving also can be seen in Gujarat, Mysore, Madras, Kashmir, Rajasthan and Uttar Pradesh.

With the passage of time and the gradual fall in demand for architectural work or heavier articles the craftsman began producing such lighter articles as carved chairs, tea-poys, boxes and the like.

Apart from Kashmir and Mysore famous for ornamental work on walnut and sandalwood respectively, Saharanpur in Uttar Pradesh is known for its carvings on black-

wood or Shisham (*Dalbergia latifolia*).

Saharanpur gets wood from the Shisham trees that grow in abundance in the forests of the nearby Siwalik and Himalayan ranges. The wood is hard. It is first cut into thin, rectangular panels according to the size of the article to be made. Designs are stencilled on the panels and then sent to the fret-saw, which perforates the panel along the outlines of the design. It is after the panels come out of the fret-saw that the craftsman begins his work with chisel. He incises lovely patterns, mostly geometrical, into the panel and gets the hollowed lines filled with the wires of brass or copper and beaten with gentle strokes of hammer. The panels are then joined together according to the requirements.

It is the combination of both carving and inlay work that gives



*Photographs taken at the U.P. Government Handicrafts Emporium, New Delhi*

carved woodware of Saharanpur its decorative quality. What lends additional charm is the use of ivory also in place of brass or copper wires.

Among the articles produced at Saharanpur are tea-poys, partition-screens, fire-screens, book-cases, cigar-boxes and neck-tie cases. They are in demand in the Middle East and East European countries.

*Contributors may kindly note that material sent by them will, in case of non-acceptance, be returned only if accompanied by sufficient postage—Editor.*

# WE YOU ASK US TELL YOU

Questions from readers on planning and development will be answered on this page. It might be noted that the purpose of this service is to provide information. Trade queries will not be entertained.

## Pattern of Land Use

**KALYANI SENGUPTA, Bhagalpur**

How is the land in the country being utilised?

**ANSWER:** The total land area in the country is 8,062.7 lakh acres. But detailed statistics of how it was used were available for 7,192.1 lakh acres in 1954-55 (This is called the reporting area). According to these statistics, the particulars were as shown below:

	Area in lakh acres	Percentage
Under cultivation	3,158	44
Fallow lands	616	8.5
Other uncultivated lands	980	13.6
Not available for cultivation	1,201	16.7
Forests	1,238	17.2

A comprehensive survey of the land use in the country has not yet been made. However, the figures mentioned above should give an idea of the pattern of land use in the country. It may be noted that the 1,201 lakh acres of land not available for cultivation include lands put to non-agricultural uses as well as unculturable lands. Year after year fallow and waste lands are being identified and assessed in the States (see 'You Ask Us' in *Yojana* of September 15, 1963) and more and more barren lands are being reclaimed for cultivation.

## New Set-up of V. V. F.

**G. RANGANATHAN, Kanchipuram**

The Government had appointed a committee to reorganise the Village Volunteer Force. What is the new set-up of the Force?

**ANSWER:** The committee set up by the Union Ministry of Community Development and Panchayati Raj

to suggest the lines on which the Village Volunteer Force should be reorganised has recently submitted its report. The main recommendations are that the V.V.F. should become an arm of the Panchayats to execute programmes based on voluntary labour. Among the programmes priority is to be given to agricultural works such as de-silting and construction of minor irrigation and drainage works, soil conservation, tree-planting, green-manuring and compost-making.

The committee has suggested that only those villagers who undertake to give at least twelve days of free labour every year should be enrolled as members of V.V.F. The defence labour banks are to be merged with V.V.F. The Panchayats are to utilise the manpower available in the villages through V.V.F. The Panchayat which has enrolled at least 25 per cent of the able-bodied adults as members of V.V.F. is to be given a matching grant by the Government.

## Story of Oil in India

**G.M. PARIKH, Baroda**

When was oil first discovered in India? Didn't our ancestors know about it?

**ANSWER:** There is some reason to believe that mineral oil was known to people in ancient India. The well known Kashmiri poet, Bilhana, of the eleventh century A.D. refers in his *Vikramankadeva-Charitam* to 'Parsika Taila' (Persian Oil). Probably the oil was imported in those days from Persia in some south Indian ports. Another Sanskrit work at least two centuries earlier in date mentions 'Turushka Taila' which means oil from the country of Turks.

A Jain work of the sixth century refers to 'Maru Taila' which means oil from the desert, or oil from Marwar i.e. Rajasthan.

*All 'Yojana' articles on planning and development are freely reproducible by other journals. Inquiries regarding photographs may kindly be addressed to the Editor.*

But these references are not conclusive.

Oil was first discovered in India in 1890, about thirty years after the drilling of the world's first oil well in the United States of America.

There is an interesting story about this discovery. The Assam Railway and Trading Company was building a railway line from Ledo to Dibrugarh through the jungles. Elephants were employed for draft work. One day when an elephant returned to the camp after its usual dip in a nearby swamp, the engineers were puzzled to find patches of black greasy substance on its legs. They traced the footprints of the elephant and saw oil on the muddy water of the pool. Oil had seeped on the surface.

The place was Digboi. The Railway Company selected the spot for drilling and it yielded good oil. In 1899, the Assam Oil Company was formed and Digboi soon became a flourishing township. The Digboi refinery came into existence in 1901.

But India had to wait till the achievement of Independence for developing an oil industry worth the name. The oilfield of Nahorkatiya, also in Assam, was found in 1952 and those of Moran and Hugrijan still later. Soon after came the discovery of oil in Gujarat.

## Co-operative Farming

**T. V. VENKATARAMAN, Jabalpur**

What are the essential elements of a planned economy?

**ANSWER:** In a planned economy major decisions regarding production and distribution are not left to be determined by the free play of market forces but are determined by the planning authority. In order to see that the economy moves in accordance with the plan, controls and regulations are also enforced. The extent of such regulation may, however, vary among planned economies. Another feature of a planned economy is that major investment decisions are based on the criteria of social benefits rather than profit motive.

Nowhere is there better evidence of the national resolve to strengthen itself to face the enemies of freedom than in our ordnance factories.

Their rate of production has leapt up in the last year. They work all 24 hours of the day, making full use of manpower and machinery.

Their production is expected to be Rs 100 crore this year. Last year (1962-63) it was Rs 58 crore, and in 1957-58 it was only Rs 18 crore. They produce a vast range of weapons and munitions—automatic rifles, field guns, recoilless guns, rocket launchers, mortars, anti-tank weapons, anti-aircraft guns, tank ammunition, grenades, mortar-bombs and aircraft bombs.

The Ishapore Rifle Factory has designed and begun mass-producing a new and improved automatic rifle for use against the Chinese.

Half a dozen more ordnance factories are being set up.

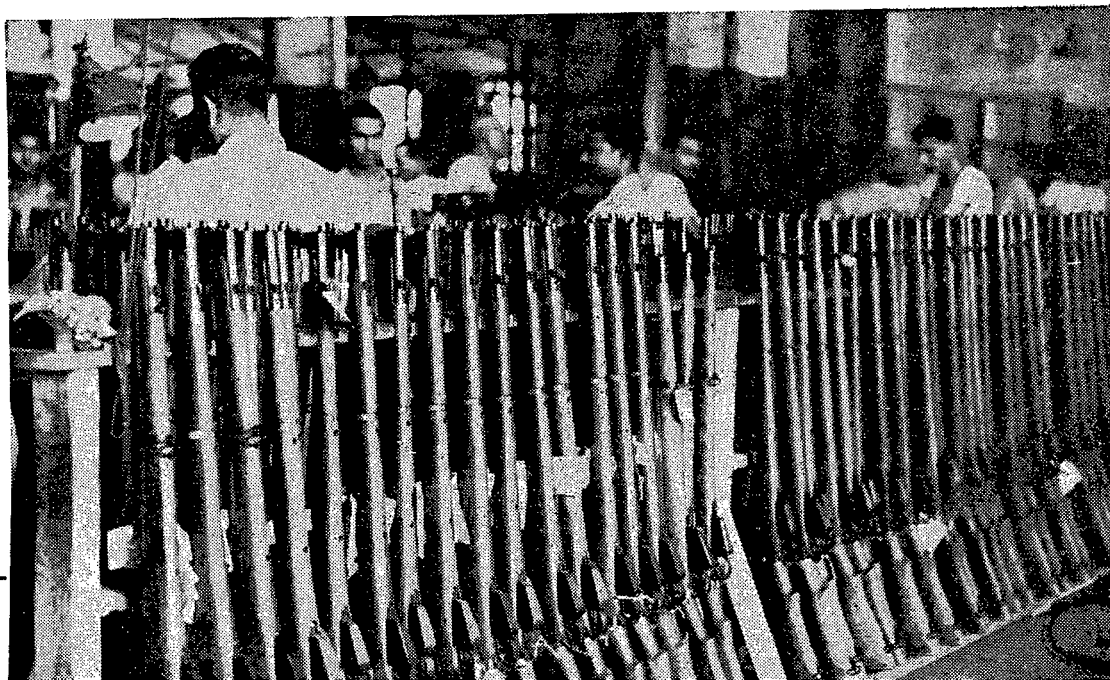
**AVRO**  
made at the Kanpur Depot



## ORDNANCE FACTORIES ACCELERATE PRODUCTION



**GUNS** for the  
new recruits to  
handle





"There's a word for service," said Tata.

"Impeccable... smooth... prompt," suggested Fison.

"No, no," said Tata.

"Quiet... personal... careful," offered Ralli.

"Got it!" said Tata, a gleam in his eye. "Integrated!"

Fison and Ralli agreed. Tata had a way with words.

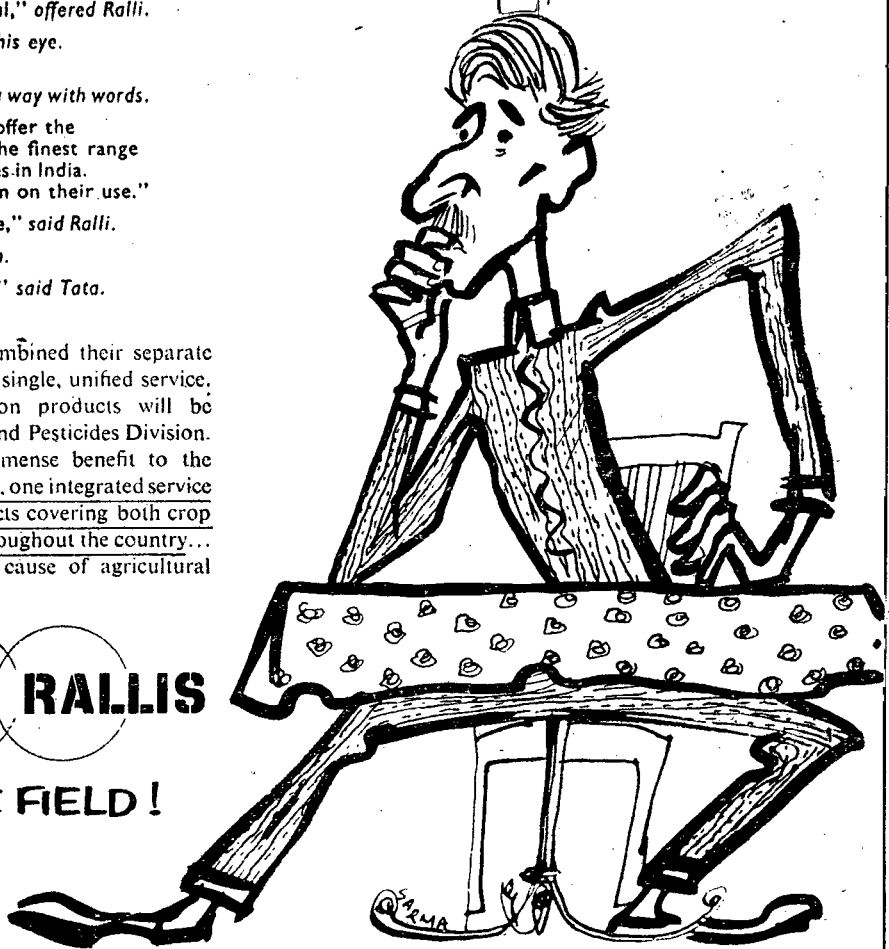
Together they said, "We offer the farmer an integrated service. The finest range of fertilizers and pesticides in India. And what's more, we advise him on their use."

"A comprehensive service," said Ralli.

"A complete service," said Fison.

"An integrated service," said Tata.

Tata-Fison and Rallis have combined their separate marketing organisations into a single, unified service. For the future, all Tata-Fison products will be marketed by Rallis' Fertilizer and Pesticides Division. The merger will prove of immense benefit to the Indian farmer. For the first time, one integrated service will provide advice and products covering both crop growth and crop protection throughout the country... a notable contribution to the cause of agricultural progress.



**TATA-FISON RALLIS**

**COVER THE FIELD!**