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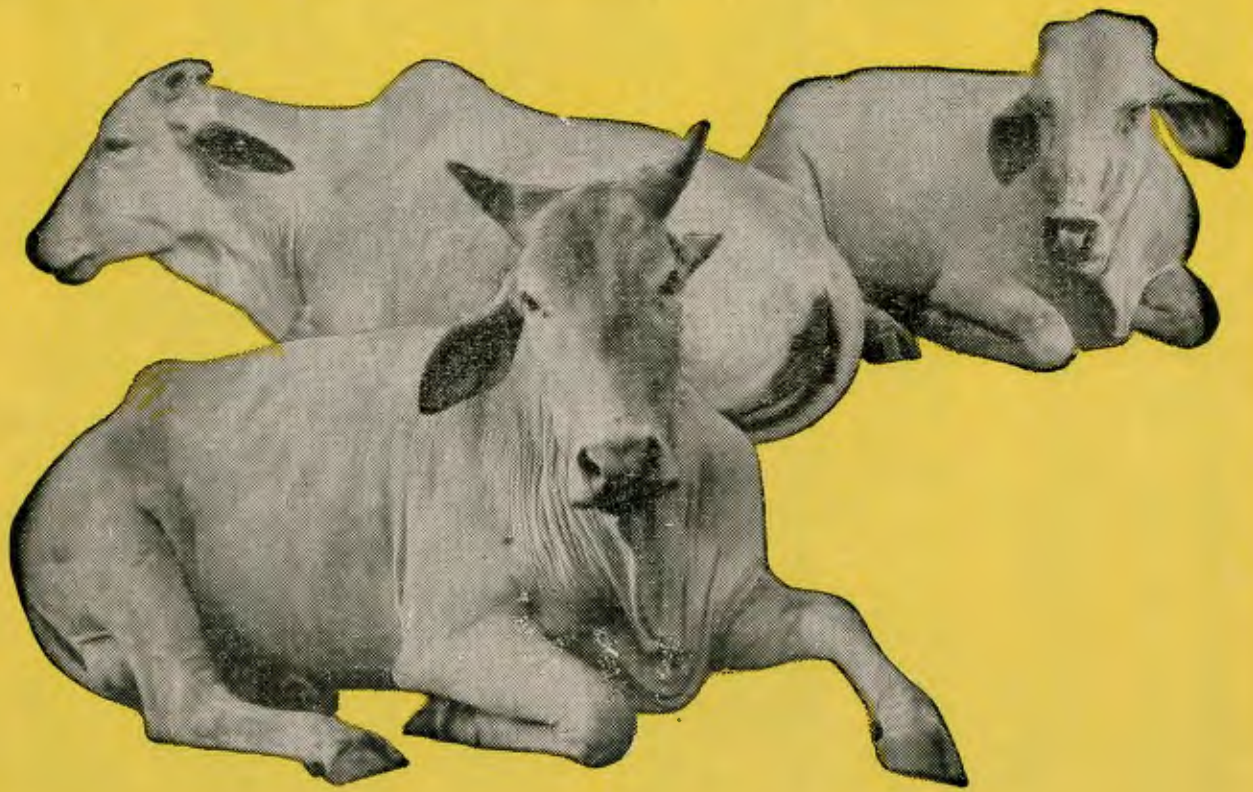
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Chief Editor

Saradindu Sanyal

Editor

Manmohan Dev Raturi

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Hameeduddin Mahmood

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Dhirendra Nath Chakravarty

Correspondent, Trivandrum

Rosscote Krishna Pillai

Correspondent, Bombay

Avinash R. Godbole

Photographic Officer

T. S. Nagarajan

Editorial Office : **Yojana Bhavan, Parliament Street, New Delhi-1 Tel : 383655, 381026, 387910 Telegraphic address : YOJANA, New Delhi.**

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LEST WE FORGET

The quest for work for all and peace for all mankind are now the greatest needs of humanity and I believe that both work and peace can be joined together in a new orientation of education everywhere in the world.

V. V. Giri

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FIRST YEAR OF THE DECADE

THE first year of the decade of the Seventies has been significant in the life of the nation. In the economic field it may well be that during the seventies, we may turn the corner and become more and more self-reliant. An unmistakable sign of it is the upswing in foodgrains production which in 1969-70 was 99.5 million tonnes, the highest figures so far. What is more significant for the future, the per hectare yield has gone up to 805 kilograms, thanks to the introduction of scientific agriculture. If the momentum of progress is maintained there is no reason why we should not be completely self-sufficient in food much before the decade bows out. This may turn into euphoria if we overlook the continuing defects in agriculture. For example, modern agriculture is yet to spread to small holdings of less than five acres which account for as much as 62 per cent of the holdings. Again in the land tenure system anomalies which militate against social justice and inhibit production have struck tenacious roots. These have to be corrected before time runs out and we become helpless witnesses to remedies imposed forcibly by the discontent.

Co-eval with the stride in agriculture, is the development of heavy industry. India can legitimately take pride in what she has been able to do in this sphere : steel, for instance, which is the backbone of all development—industrial as well as agricultural. The total steel making capacity in the country today is nearly nine million tonnes—a sixfold increase since 1947. The combined capacity of Hindustan Steel plants accounts for two-thirds of the country's total steel capacity. In addition, the Alloy Steels plant, at Durgapur, produces the bulk of alloy and tool steels required. The public sector steel industry has made vital contribution to the national economy such as aiding the growth of a self-reliant and self-generating economy, building up indigenous knowhow and creating a cadre of highly trained technicians and strengthening defence production potential. But shortcomings cannot be slurred over. Hindustan Steel has not been performing as well as it could have been. In 1969-70, however, it made some headway. Rourkela and Bhilai made profits during the year while the loss at Durgapur came down. The current national steel development programme provides for doubling the existing capacity from 9 million tonnes to about 19 million tonnes by the end of the Fifth Plan period.

The nationalisation of 14 commercial banks has undoubtedly given a new direction to credit policy. The picture of bank assistance to agriculture, which accounts for half of the national income, has altered significantly since nationalisation. Likewise, lending policies to the small-scale industry are now based on viability of a project and end-use of bank loan. There has been a large flow of bank assistance to small-scale industry which employs about 40 per cent of the total industrial workers. Other negelected sectors too have benefited.

In industry, the seventies may perhaps see India qualify herself to be called an advanced nation. The list of new industrial products she has begun manufacturing is formidable : printing and rubber machinery, paper and pulp machinery, mining machinery, commercial vehicles, sugar mill machinery and boilers, including mountings. The emphasis on heavy industry in the Second Plan, the subject of so much adverse criticism today, may after all prove to have been a wise decision. Certain intangible benefits have to be noticed. To mention one, the creation of a hard core of technicians able and confident of making sophisticated industrial products. In the years to come, Indian technicians will be competent to set up a steel mill or an oil refinery without having to import technical knowhow at heavy cost, both in money and self-respect.

In foreign trade, the major development in 1970 was the setting up of several new public sector agencies to take over large chunks of import trade in pursuance of the government's policy of progressively nationalising the import trade. A Project and Equipment Corporation has been set up in order to exploit fully the possibilities which have opened up for the export of Indian machinery and equipment such as rail wagons and engines, power transformation systems and other complete industrial installations.

The list of achievements in various fields, for example, in health, postal services and communications, electrification of villages and so on can be impressively lengthened. What is more relevant is : has all this raised the standard of living of the average Indian? There can be varying answers to that question depending on the outlook of the person who is required to answer. Some can point to the rising prices, growing unemployment among the educated and the failure to arrest the growth in population despite enormous sums of money spent on the family planning drive. Yet it is undeniable that the average Indian in 1971 is better fed and better clothed than he was in 1951, the first year of planning. Problems remain—in abundance. The challenge of the seventies is to face them and face them with determination.

A CRITIQUE ON MANAGING AGENTS AND MANAGING DIRECTORS

P. S. LOKANATHAN

THE abolition of the Managing Agency system, effective from April 1, 1970, is undoubtedly a landmark. With all its faults and deficiencies, it had contributed much to the industrial development of India, both before and after Independence. In the special circumstances prevailing in the country in the latter half of the 19th century and first half of the 20th century, its distinctive characteristics were undoubtedly an advantage. With the limited availability of entrepreneurs, an undeveloped capital market, and lack of technical knowhow, development of Indian industry would have been very tardy but for the Managing Agents who were in a position to supply promotional, financial, management, banking, insurance and marketing services. Its greatest merit was that it enabled new industries and new units to be set up, utilising the same personnel for setting up and managing new businesses. Consequently, expert services and know-how could be had for a modest fee.

Against these advantages must be set certain serious shortcomings. The system, in its operation, was costly because the management took an unduly large share of the profits. Secondly, it failed to bring about an increase in the supply of entrepreneurs; it tended to perpetuate scarcities by making management and entrepreneurship a close preserve of a few dominant family houses. Thirdly, it lent itself to serious abuses such as inter-corporate investment, and speculative dealings in goods, raw materials and shares. These defects have been recognised and, over the years, the Company Law Administration had been tightened and action taken to eradicate some of the defects of the system. For example, remuneration to the Managing Agents was limited through a sliding scale of profits. Speculative dealings of Managing Agents have been specially controlled through compulsory disclosures of interest and through other measures. Licences had been given to new entrants so that the monopoly hold of some large industrial houses has been reduced. Many sections of the Company Law have been directed towards reducing the power of the Managing Agents and to prevent abuses of the system.

"Members of the Board of Directors have neither the opportunity nor the desire to control management; they are content to be re-elected . . .

We have to evolve a new system of remuneration which would bring out the best in a person."

Nevertheless, there was the widespread feeling that the Managing Agency system had outlived its usefulness, that whatever improvement could be effected by law would be inadequate, that its continued functioning under the new democratic system of values would be unsocial and that nothing short of abolition would meet the new situation. While its abolition was due to a number of circumstances, it may be said that pressure of public opinion was the most irresistible.

The fear that with the abolition of the Managing Agency system, there would be confusion and retardation of industrial development have just not proved true. The surprise, rather, is that industry, big and medium, has adjusted itself to the altered situation. This adaptation and adjustment reflects great credit on the previous management. Perhaps the main reason was that the change from the Managing Agency system to the Managing Director system was not a revolutionary or even a major change : What happened was that the old Managing Agency system remained with a new designation. The powers which the Managing Agent enjoyed have now accrued to the Managing Director who is to work under the Board of Directors. But the old Managing Agents also were supposed to work under the guidance of the Board of Directors. By and large, the socalled Board of Directors' management has been a myth. It was so under the Managing Agency system. It is so under the new system also. It would really change only when conditions change in important directions. In the past as well as the present, the Board of Directors elected themselves. In the past Managing Agents practically elected the Board of Directors. Today, a Board, once elected, continues, and Directors do not seem to be independent persons; nothing has very much changed. Save in a few cases, members of the Board of Directors have neither the opportunity nor the desire to control the management; they are content to be re-elected and to pocket the director's fee.

Pay and Perqs

Before commenting upon the changes that have been brought about as a result of the abolition of the Managing Agency system, let us review the action taken by the Government in pursuance of the abolition. The remuneration of the Managing Director, his perquisites, allowances and amenities, the conditions of his employment, his tenure, are all fixed now by the government. Nobody can be a Managing Director unless his appointment is approved by the Government. This power to appoint management or to recognise particular management rest-

ed with the Government even before. That the Managing Director is to work under the direction of the Board is again no new policy. The real change is in limiting the amount of remuneration payable to the management which has now been reduced greatly. Under the managing agency system, in spite of limitation on the amount of profit, it was a substantial amount. Even though the remuneration was fixed on a sliding scale, managing agents were able to draw from a company anything from Rs 1 lakh to Rs 20 or Rs 30 lakh depending on the size and profit of the concern and since the managing agents were supposed to manage quite a considerable number of enterprises, the total remuneration of a large managing agency firm went up to a colossal sum. Today, that is not possible. In the first place, government have limited the salary of a Managing Director to Rs 7,500 per month. Only in a few cases is it more. In a considerable number of cases, it is less. The Managing Director is allowed a free house, a free car, provident fund privileges, gratuity and medical benefits and other perquisites, but these are limited to 100 per cent of the salary. A Managing Director, unlike the Managing Agents, is not allowed to manage more than one large company except in special circumstances. Also, the total remuneration to a Managing Director cannot now exceed about Rs 1.35 lakh to Rs 2 lakh.

Now, whether this is fair and reasonable is open to argument. While some managements feel that it is inadequate, others believe that it is too much. Without arguing the matter in too great a detail, one may say that it is about right,—having regard to the fact that the transformation must not be too sudden or too drastic. Nevertheless, there is the growing opinion that merely because managers manage industries, there is no reason why their remuneration should be so far out of proportion to the general salary structure in the country. Can we say that the qualities and capacities required of a Chief Justice of India are inferior to those of a manager of a large firm? Also, be it noted that beyond a certain level, income ceases to have any direct impact on the quality of work. The best in a man would usually come out on account of his desire to achieve something big or outstanding. An extra monetary reward will not affect this urge for achievements. Motivation comes from a desire for achievement, and monetary reward is not necessarily the only incentive for work and fulfilment. Further, under a planned economy, the risks of a manager are greatly reduced,—the very controls which might adversely affect growth also ensure minimum prices and a minimum return for investment.

Better System

A system of remuneration which would bring out the best in a person has to be worked out. People work for all sorts of motives and considerations. That monetary reward is one of the factors is certainly true. But the desire for power and recognition, and the desire for self-realisation and achievement are also important urges. That monetary regard is not a determinant of high level efficiency may be noted from the fact that a man continues to work even after becoming a millionaire although he does not need additional money rewards afterwards, as he has more than enough for all his needs, and for 'conspicuous consumption', too. What urges him is quite different. Up to certain levels of income, there is a close relationship between money reward on the one hand and volume and quantity of work on the other. The 19th century socialist theory was built on the assumption that money incentive was not a powerful one and that work for the State would subsume monetary interests. This theory may be open to question. But the opposite theory, indulged in by the modern capitalist and entrepreneurs, that money reward is everything, is equally wrong.

Individual shareholders have ceased to function and have become mere lenders of capital with the difference that while lenders are entitled to take back money, the shareholders cannot easily do so.

To evolve a system of remuneration, material and non-material, taking into account all factors that motivate a man to work, is by no means easy. But this has got to be done if society is to get the best out of every man. The number of persons who work in voluntary organisations and in honorary capacities is ever increasing. It is worthwhile to ask, how are they motivated. The sheer desire to do something good for society, combined with a lot of not so good desires, such as power and recognition, is the answer.

In India today industrialists are charged with great economic power. A great deal of it stems from the mere fact of their having control over large financial resources, which they can use either for good or bad purposes. It is the duty of society to see that this power is exercised for social ends, and not in a pursuit of private gains.

To revert to the question of management, several former Managing Agents have now converted themselves into consulting firms where there are no limitations on the scale of remuneration. These consulting firms work on lines similar to the former Managing Agents. It is a situation that calls for control measures to prevent any abuses.

In my view, the system of management must be radically altered. We must recognise, frankly, the fact that shareholders of the company are only nominal owners. The ownership of the shareholders has always been a myth, even more so by virtue of the fact that today the owners (shareholders) of large industrial houses are the LIC and the Unit Trust and also because financial institutions like IFC and ICICI are large creditors to these companies. Every decision of the company, including declaration of a dividend, has to be got approved by these financial institutions and by their larger shareholders, the LIC and the Unit Trust. Individual shareholders have ceased to function and have become mere lenders of capital, with the difference that while lenders are entitled to take back their money, the shareholders cannot easily do so. Recognising this, and also with a view to attract more permanent capital to industry, I should like to suggest that a minimum return of 5 per cent per annum should be guaranteed them, along with

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CHALLENGES TO COOPERATION

D. R. GADGIL

EVERYBODY would agree that cooperators and cooperative organisations find themselves in a rather peculiar position today. In some ways, it is quite a crucial situation. It arises out of both our achievements and our failings. In those areas where cooperation has not been able to establish a firm primary or local base, its effectiveness as an instrument of planned development is challenged, and there is naturally a great deal of criticism. There is great deal of scepticism about the attempt to continue with the Government policy declaring cooperation the agency in general for achieving development. But even in areas where it has succeeded, the very success has brought forth a variety of public reactions. One of those being that cooperation has not been able to give direction to social movements of the type expected. It has succeeded among those strata who have benefited from the general development programmes, while cooperative activity has not been able to lift up those for whom the general development programmes of Government assistance were not suitable or whom they did not reach. Now this is a challenge to which you can react in a number of ways. I insist that cooperation as an instrument of helping the weaker sections could help Government policy but in areas where Government policy itself did not help the weaker sections or had not started development plans for the weaker sections, cooperatives could not accomplish the work.

Further developments, which are more recent, have also increased our difficulties like the nationalisation of the banking sector to a large extent and general extension of public sector in trading and other spheres. This is an appropriate trend for which there is general backing of the people at large. Only it creates some difficulties of adjustment for the cooperators. *Vis-a-vis* the private sector, the cooperators had asked for protection sometimes. When discussing the extremely intricate problems of joining together cooperative effort with the work of the nationalised banks, you cannot possibly ignore a set of problems that arise out of (1) the general structural and organisational private sector base of these banks and (2) the large difference in areas and modes of operation. The situation of the cooperator is slightly worsening in this context because he cannot expect to get, automatically, from the Government and officials, the sympathy that he could expect when he was complaining against the private sector.

Peculiar Position

The position of cooperation in the Indian context is extremely peculiar. There are very few parallels in other countries to this position and there is, barring the working of individual organisations, very little that we can learn either from the thinking or working of cooperatives in other countries. The two main aspects of the peculiarity of Indian cooperation are that on the one hand cooperation is looked upon as the cooperative organisation of society and as an ultimate socio-economic aim. This is not done in any other country. That there is an enormous agreement in India amongst all public parties and opinion leaders that a cooperative form of organisation is specially suited to our circumstances and possibly to our genius, is almost taken for granted. This being taken for granted, there is the other expectation which is the operative expectation that the cooperative organisation will in fact serve as the agency of transformation, that they will be efficient development agencies and by their spread, a long-term socio-economic transformation will come about. This places cooperatives and cooperators in a special, if you may call it, in a privileged position. It is also a very difficult position because what is expected of them is much beyond their present powers; and yet the expectation is there. The peculiarity of the situation is that in spite of the experience of the last 15 years, in spite of the clear recognition that over large parts of the country, over large areas, cooperative prescriptions and programmes have almost failed, you will find in socio-economic thinking today no alternative to cooperatives.

When we wrote the Rural Credit Survey Committee Report in 1954, we found that only 3 per cent of total rural borrowing was from cooperatives. If cooperation which had subsisted for 50 years, had done so little, we in India had to confess that cooperation had failed and yet cooperation was the only hope. Few disagree with this. Take the latest report on Rural Credit which talks of a multi-agency approach. You will find the proposals are essentially transitional. The report does not think in terms of other agencies, as all being necessarily rooted in rural society and subsisting for all times. There is no new multi-agency amalgam or political, social or economic structure that is being prescribed. Multi-agency, as before, is a transitional arrangement helping to make the transition to a fuller co-operativisation possible. So the co-operators have really to think out the future in this context.

In India where you are expected to cover the whole of rural society with a cooperative net-work, it is not as much the organisational problems of the individual society, it is the organisational, operational and theoretical problems of the total structure, what I call a system, that are important. Unless we build a Cooperative System which is viable and operational, successfully, we cannot match the national expectations. We have to think in terms of the effort that is necessary, and which must be national and also cover all sectors of rural economic life. I am deliberately saying rural economic life because the expectations in urban areas are not much and the prospect is less hopeful than in rural areas.

Edited version of a speech delivered recently by the Deputy Chairman of Planning Commission at the Conference of State Cooperative Marketing Federation.

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NEW INVENTIONS FOR BETTER YIELDS

INDIAN FARM SCIENTISTS ARE HELPING THE DRY LAND FARMERS

M. S. SWAMINATHAN

RECENT scientific advances have enlarged the vitas in dry land farming in our country. The conquest of the season-bound nature of the varieties cultivated has liberated these crops from subjection to the behaviour of the season. Geneticists have achieved the disassociation of season and crop duration by developing varieties which are insensitive to the length of the day and to temperature. Such photo-and thermo-insensitivity coupled with a shift in emphasis from the individual plant to a population performance have helped to raise very considerably the ceiling on yield imposed by lack of assured irrigation.

Some recent quick and high-yielding varieties for dry and farming developed by the Indian Agricultural Research Institute (IARI) are C.S.H. 3 Jowar (100—110 days maturity), Aruna castor (100—120 days), Pusa Ageti *arhar* (100—120 days), Pusa Baisakhi Moong (50—60 days), Suphala mustard (90 days), Ratna barley (100—110 days), Kalyan Sona wheat (110—120 days), Pusa 2—21 rice (100 days), and PRS 72 and PRS 74 cotton (120 days).

Another breakthrough has been in the field of soil preparation and moisture conservation. Because of thousands of years of shallow ploughing with a wooden plough and due to soil erosion, there is in many parts of our country an impervious hard pan just below the top soil. This leads to the incidence of flash floods, even with a few inches of continuous rain, as happened recently in Hyderabad. IARI scientists have therefore been using deep rooted plants like castor and *arhar* as ploughs and have developed a series of efficient and simple farm machinery for achieving appropriate tillage.

Simpler systems of water harvesting have also been developed for better water utilisation. One of these is the raising of *kharif* crops in ridges, collecting moisture in the furrows for the *rabi* crops. Thus double cropping can be introduced where normally only one crop is taken. Another important development is the design of low cost storage reservoirs using locally available clay like Bentonite, which can help to save some of the rain water for 1 or 2 irrigations after the rainy period.

Supply of Nutrients

In dry lands there is not adequate moisture for the fertiliser to go into solution and become available to the plants. A special implement has been developed by the IARI which deposits fertiliser in deeper layers of the soil. Where even this is difficult fertilisers can be applied through the leaves. IARI researchers have discovered that by using a low volume sprayer even a 20% solution of urea can be safely sprayed on the plants. Before this discovery, it was not possible to apply more than 2% solution without doing harm to the plants. Most of our pulse as well as groundnut production comes from the unirrigated farms. Pulse crops have the unique ability to fix atomospheric nitrogen but such fixation is poor in our country due to the inefficient strains that have been developed. In addition, a technique of pelleting has been standardised which helps the rhizobial cultures to establish and function efficiently in both alkaline and acid soils. Alkalinity and salinity are common in the soils of dry farming regions and hence this technique will help to enhance pulse and groundnut production very greatly.

Pests can cause great harm to dry land crops. The recently developed integrated pest control measures, involving an appropriate admixture of genetic, agronomic and chemical methods, will greatly reduce pest damage. The "Pusa Bin" method of grain storage can greatly solve the acute storage problems in these areas. In this technique, an alkathene sheet is placed between two brick layers. The "Pusa Bin" can be constructed by every farmer.

A dry land 'crop-cafeteria' (choice of crops) has been established at the IARI employing a synthesis of all the recent scientific discoveries in water harvesting, land preparation, plant breeding and supply of nutrients. A great many cropping sequences are shown from which the farmer can choose according to the marketability of the produce, profitability of the rotation, soil and climatic conditions and his input mobilising potential. A wide choice of technique in tillage and water harvesting are also provided so that a graded dose of sophistication can be introduced in dry land farming, with the growth in the income of the farmer.

To Our Readers

Despite our best efforts there has been delay in the publication of "Yojana". However, we hope to resume normal publication very shortly. Inconvenience caused to our readers and advertisers is deeply regretted.

Chief Editor

ADULT EDUCATION IN SWEDEN

P. R. DUBHASHI

SWEDEN by many standards is a most successful country. She has the highest standard of living in Europe and comes next only to America amongst all the countries of the world. She offers to her citizens the most advanced system of social security in the world. The key to this multi-dimensional accomplishmeat lies in the fact that Sweden has the most organised and also the most educated society.

For the last 100 years or more Sweden has had compulsory primary education. The beginning of the Swedish system of elementary education could be traced to the reading of the Bible. In 1623 the king established the first gymnasium which taught Latin, Greek, theology, etc. By 1824 every second community in Sweden had a small school. Today the revised system of Swedish education provides compulsory education for 9 years to every Swedish child. After this, a Swedish boy may either go to a gymnasium for higher education for a period of 3 years or a trade school or a continuation school known as Fack. Thereafter more academically inclined students will go to the university.

In spite of this the standard of education of the rural population was comparatively lower. A felt need of the rural population was, therefore, to supplement or upgrade their education in their later lives and in response to this need, folk schools were established. Father Grundwick of Denmark was the originator of this idea which spread to rural Denmark as well as to rural Sweden. They were owned by temperance societies or other popular movements. Today they number 105 in all. Now that the standard of education in Sweden has risen uniformly in urban as well as rural areas, the folk schools have taken to conducting variety of courses in leadership and social work etc. for the rural population.

But apart from the regular educational institutions and the folk schools, Sweden has a remarkably comprehensive system of adult education which has, perhaps, no parallel in the world.

There are as many as 14 National Adult Education Associations which conduct on their own an extensive programme of adult education through a network of study circles. For a country with so small a population as 8 million, there are as many as 150,000 study circles.

Study Circles

A study circle is a small group of 10 to 15 persons who study through discussion a wide range of subjects of interest to the adult citizens, such as languages, specially English literature, art, music, national economy, trade union problems, consumer cooperation, agricultural cooperation, various aspects of agriculture like forestry, agricultural taxation, home economics, food and nutrition and even problems which go beyond the national frontier like the European countries. This method of adult Common Market and developing education through study circles is a typical democratic method of education. Indeed the study circles are the nurseries of democracy. It may well happen that some members of the study circle have university degrees while others have a schooling of only 6-9 years. Yet it is the adult experience of individuals of diverse background that enables them to meet on a level of equality and participate in the discussion.

The study circle meetings are held mostly in winter. It is well-known that Sweden has a very cold and long winter when the citizens keep indoors. In summer they go on long holidays and, therefore, the study circles do not function in that season. Every study circle has a leader who is selected by the Adult Education Association. The subjects chosen are such as would contribute to advancement in general education as well as the professional advancement of the participant.

The study circle method is widely used for a continuous process of education of the employees of the consumer cooperative movement as well as of the agricultural cooperative movement. Neither the employee nor the employer considers that the process of education ends after an individual takes a job. They believe that education will enable him do the job better. This is responsible for creating a society constantly geared for change and improvement.

The method of education in study circles is most interesting. It is based on discussion as well as on extremely useful educational material which is suited for self-study and group study of adults. The responsibility for preparing this material is taken by what are called the correspondence schools. The most important among them is the Hermods which gives out 1,00,000 courses every year. The next in size is Brev Skolan of the Trade Union and the consumer cooperative movement which puts out 50,000 different courses every year on 300 different topics belonging to 14 different subjects. The third correspondence school, known as the LTK, belongs to the farmers and agricultural cooperatives, and brings out 15,000 different courses every year on subjects connected with agricultural and rural development as also on the general subjects.

These courses differ very much from purely academic text-books which are theoretical and being remote from practical experience are not fit for self-study by adults. The

material produced by the correspondence schools, on the other hand, is extremely practical and is specially oriented for self-study.

In recent years liberal assistance is available from the state for the activities of the study circles. The material sent out by the correspondence schools is initially paid for by the study circles but later 3/4th of the cost is reimbursed by the Adult Education Department.

One is greatly impressed by the amazing vitality of the adult education associations which organise the study circles and correspondence schools. The biggest amongst them is ABF, which belongs to the Trade Unions. Vux Skolan is the adult education association of the farmers and the agricultural cooperative movement. Their correspondence school, Brev Skolan, has not been started and run by the state at all. It is owned by the ABF, adult education association or the labour organisation, the consumer cooperative movement, the temperance movement and the salary earners' association. The LTK is owned by the farmers' association and by the agricultural cooperatives. The Brev Skolan is run by the centrist Farmers Political Party.

The material prepared by these correspondence schools is used not only by the study circles but also on radio, television and in schools. Thus adult education associations derive their strength from various political and economic institutions.

We in India have often tried to transplant the idea of the study circles but it has not grown because it has not been a part and parcel of our popular life as in Sweden. We must find some way in which it can be adapted, accepted and linked up with the popular institutions in our social life. Indian democracy would be strong to the extent to which our adults have continuous opportunity for self-education. In this task, the Swedish system of adult education through study circles, the correspondence schools and the popular movements can provide a pattern for us to follow.

CHALLENGES TO COOPERATION

from Page 5

The essentials of what I call a System are really its possibility of working in an integrated fashion at all centres and at all levels. If an integrated monopoly procurement system has to succeed, then you must entrust the cooperators as a whole and the cooperators must build an integrated system.

If it is a System, all the sectors must come together. In a System, federal problems must also be worked out. We must insist that the monopolist, in this case the State marketing federation in the marketing system, must allow the lower units to share the profits to the largest extent possible. The marketing federation should keep its share as low as possible so that the small units get the largest benefit. This is the concretisation of the working of the System.

The attitude appropriate to private sector operation is that of individualistic aggressiveness. Each individual is aggressive, each unit of organisation is aggressive. You go on thinking of dominating the field and the bigger you are, the more profits you have, the more successful you are considered. On the other hand, you cannot work a cooperative system unless you consider the interests of others equally as of yourself, of the other members of system or the organisations at various levels or in various sectors. So if you are the federal apex, you must look to the interest of the primaries as much as of your own. If you are federal apex talking to another federal apex, then both the sectors should have equal opportunity of playing their part. Now this I am afraid is not clear today. We have to be able to make much more general the attitudes that are appropriate to the successful working of a cooperative system.

The last point to which I would draw your attention is the great paucity in India in most areas of real leadership both at the local and national levels. Unless we are able to bring into existence leadership of very much greater size and improved quality, we shall not go very far in the desired direction.

There is today a crisis. Something has to be done about it. Existing cooperative organisation and thought cannot serve our purpose. We must put forth the type of leadership, the type of thinking and also determine the direction which we really want in the future. I am afraid that unless we do this the blind faith in the cooperatives which is still persisting in the Indian public opinion may not be retained some years after.

OUR CONTRIBUTORS

P. S. LOKANATHAN, former Director-General, National Council of Applied Economic Research, New Delhi

M. S. SWAMINATHAN, Director, Indian Agricultural Research Institute, New Delhi

P. R. DUBHASHI, Director, National Institute of Cooperative Management, Poona

D. P. SETHI, Central Institute of Research and Training in Public Cooperation, New Delhi

DR. A. DUTTA, Senior Research Officer, Planning Commission, New Delhi

SURESH R. CIRVANTE, Joint Secretary, Federation of Gujarat Mills and Industries, Baroda

V. A. VASUDEVARAJU, Department of Economics, G. V. N. College, Kovilpatti

JOSE ROLZ-BENNETT, Under-Secretary-General for Special Political Affairs, the United Nations

A. K. NANDI, Senior Research Officer, Planning Commission, New Delhi

S. L. PARMAR, Principal, William Holland University College and Reader in International Economics, Allahabad University

B. SATYANARAYAN, Lecturer in Economics, A.U. Evening College, Hyderabad

M. P. DAIYA, Directorate of Information, Gujarat

B. N. TRIPATHI, Directorate of Information, Gujarat

Photographic Competition



ON COMMUNITY DEVELOPMENT, PANCHAYATI RAJ AND COOPERATION, 1970

ENTRIES ARE INVITED FOR THE ALL-INDIA PHOTOGRAPHIC (BLACK & WHITE) COMPETITION ON COMMUNITY DEVELOPMENT, PANCHAYATI RAJ AND COOPERATION.

THEME AND SUBJECTS : The photographs should reflect the spirit and endeavour of the Community Development, Panchayati Raj and Cooperative Programmes and depict the activities pertaining to :

- ALL-WOMEN PANCHAYATS
- YUVAK MANDALS and MAHILA MANDALS implementing Community Development Programme
- SCHOOL and UNIVERSITY COOPERATIVE STORES
- AGRO-SERVICE COOPERATIVES
- COOPERATIVE SUGAR FACTORIES

PRIZES

FOR SELECTED ENTRIES

FIRST PRIZE	...	Rs. 400
SECOND PRIZE	...	Rs. 300
THIRD PRIZE	...	Rs. 200
CONSOLATION PRIZES (6)	...	Rs. 50 each

NO PERSON IS ELIGIBLE FOR MORE THAN ONE PRIZE. ONE CAN, HOWEVER, SEND MORE THAN ONE ENTRY

THERE IS NO ENTRY FEE

LAST DATE for receipt of entries extended upto January 31, 1971

HOW TO ENTER : Two copies of each entry — glossy prints in size 25 cm x 30 cm suitable for reproduction — should be sent together with the negative. Each photograph should bear on the reverse (hand-written or typed on a separate piece of paper pasted thereon) : ☐ Name and address of the competitor; ☐ Detailed caption with location (village, block/ panchayat, district and State); ☐ Event or subject; ☐ Date of taking the snap, etc.

The photographs should be packed flat securely. The Government of India will not be responsible for their loss or damage in transit.

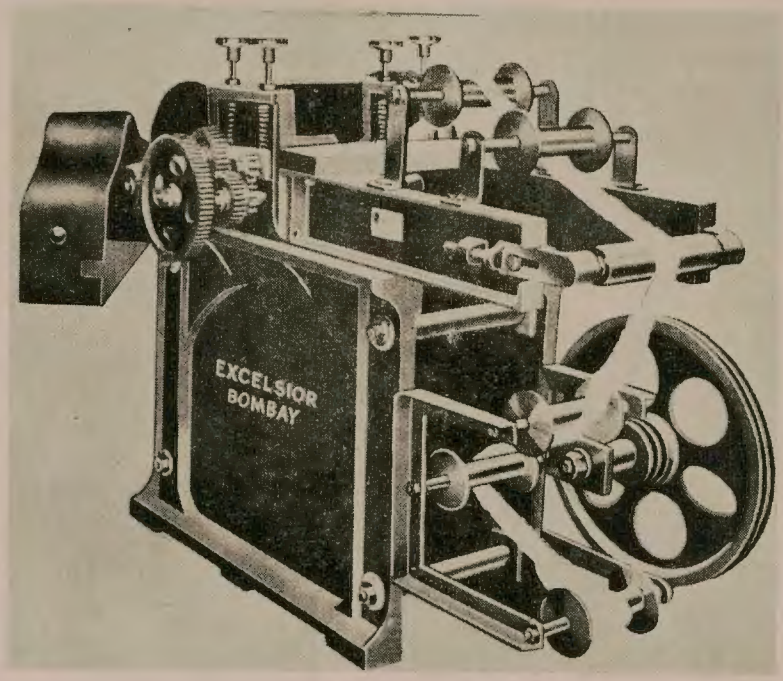
REPRODUCTION RIGHTS : Photographs entered for the Competition and their negatives, whether they win a prize or not, may also be used for putting up a photographic exhibition. The prize-winning photographs and their negatives will become the property of the Government of India in whom shall vest the right to reproduce them in any manner and for any purpose. In case of a dispute, the decision of the Government of India shall be final and binding on all concerned.

Entries should be sent to :

Director (Basic Literature)
MINISTRY OF FOOD, AGRICULTURE COMMUNITY DEVELOPMENT & COOPERATION
(Departments of Community Development & Cooperation)
KRISHI BHAVAN, NEW DELHI-1

davp 70/589

THIS is the story of an arts student, whose imagination and perseverence, while in search of a job for himself, led him to successfully develop two machines widely used in textile and woollen industry, and thus help the country in saving foreign exchange worth Rs 48 lakh. The desired high quality of these indigenously developed and produced machines induced the Government to ban the import of their foreign counterparts as far back as 1966. And their designer/producer V. Thakur of the Excelsior Trading Company, Bombay, was presented with the highest National Award of Rs 5,000 under the Import Substitution Scheme in October, 1970. Recognition came to him from the industry as well as the Association of Merchants & Manufacturers of Textile Spareparts (India) awarding Mr Thakur a gold medal for his achievement.



MACHINES THAT TURN WASTE INTO WEALTH

AVINASH R. GODBOLE

Our Bombay Correspondent

The two machines developed by Mr Thakur are : rag tearing or pulling machine (above) and fibre or waste cutting machine.

The rag tearing machine helps the textile and woollen mills in utilising waste cloth and knitted fabrics and yarn from wool, cotton, jute synthetic fibres and other textile materials. These waste products are turned into yarn again to be spun for manufacturing cloth. Previously the woollen mills were not only importing these machines but also the costly pulled shoddy materials. Now with this indigenously developed machine which costs Rs 19,000 only as against Rs 80,000 plus duty for the imported one, the country saves the much sought after foreign exchange and the industry in terms of costs.

The second machine developed by Mr Thakur is less costly than the imported one. Priced at only Rs 6,000, it saves over Rs 21,000 in foreign exchange. The machine is ideally suited for precise cutting from 25 mm to 102 mm length of all types of synthetic fibres and tows including their waste, besides being capable of



cutting original synthetic fibres to any required length.

There are 21 rag tearing machines and 91 fibre cutting machines, indigenously made, in use at present in the country. These being cheaper, have attracted inquiries from abroad, and are likely to be placed on the country's list of exportable items. Since the use of synthetic fibres is on the increase in textile industry at home, these machines would also be increasingly utilised as well for rag teering and cutting of the original synthetic fibres to required lengths before further processing.

Mr V. Thakur came to Bombay in 1959 to work in a woollen mill there. During his three-month stay in the mill, he studied the working of these imported machines which stimulated his imagination to develop them indigenously. He gave up his job and started selling textile spareparts to collect funds for translating his idea into reality. He successfully produced in 1964 the first fibre cutting machine, fabricated at a factory other than his own which came up a year later at Ludhiana. Having produced this machine at his own small factory, Mr Thakur soon developed and produced the other rag tearing machine, and thus enabled to the Government to ban the import of machines of this kind.

Mr. Thakur's future plans include developing yet another foreign exchange saver—the Grenette Machine, for which he was submitted his scheme to the Government. Mr. Thakur hopes to sell this machine at Rs 1,10,000 only as against the import price of Rs 1,30,000. Planning to produce 12 such machines per year, he will save the country over Rs 15 lakh in foreign exchange on this item alone.

INDO-CANADIAN PARTNERSHIP FOR DEVELOPMENT

JASBIR BATRA

SINCE India launched its programme of planned economic development, it has received assistance from various countries in the fields of science and technology. Canada is one such country that has contributed substantially to the development and diversification of India's economy. In a comparatively short period of twenty years the technical and economic collaboration between the two countries has assumed gigantic proportions.

During this period, Canada has provided nearly one billion dollars in development aid to India. Out of this nearly two-thirds took the form of outright grants for capital projects, technical assistance, food, fertilisers and industrial commodities. The only condition, which applied to most but not all of these grants was the establishment of Counterpart Funds in rupees. These funds, totalling some Rs. 283 crore by the end of September 1970, were allocated exclusively to Indian development in consultation with the Canadian Government. Typically, they were used to cover local costs of Canada-aided projects, like the Idikki and Kundah Hydro Electric Projects. Much of the balance consisted of development loans, given on probably the softest terms available from any source, and export credits provided on semi-commercial terms by the Export Development Corporation of Canada.

In the 20 years since Canadian assistance was launched, Canada has provided roughly $ 1 billion in development aid. More than 63 per cent of this took the form of outright grants. Much of the balance was made up of loans on the softest terms available to India from any source. The total over the years places Canada second only to the United States in bilateral net aid. In 1970-71 Canada will be devoting Rs 66.15 crore about 30 per cent of its global bilateral assistance programme to India.



Besides aid in the form of bilateral grants, development loans and exports credits, Canada also contributes to international organisations like the World Bank, United Nations, International Development Association which provide development assistance to India and other countries. Almost 20 per cent (to be increased to 25 per cent in the next few years) of Canada's development assistance was channelled through these organisations in 1969.

A significant proportion of this came to India. An important element of the Canadian assistance programme, however, is the supply of knowhow in the form of experts. More than 100 Canadian consultants have worked in India under the programme and more than 1100 Indians have received technical and academic training in Canada, mostly in connection with Canadian-assisted projects.

Tailored to the requirements of the Indian economy Canadian assistance to India falls under four broad categories : food and raw material shipments; capital equipment and expertise for specific projects; technology and equipment for general development programmes, as in agriculture; and knowhow and equipment in areas like scientific research, health and education.

Irrigation and Power

While all of the assistance is of very real need to the Indian economy, the most spectacular instances of Indo-Canadian cooperation are the monumental hydro-electric projects. The task of harnessing the resources of their own rugged country has endowed Canadians with a special talent for the building of dams and power stations. This genius has found expression on the Indian subcontinent, in a series of massive power projects which, when completed, will account for more than 10 per cent of the country's total output.



An expert visiting a farm



Earth Satellite Communication Station, Arvi.

Left : A market day at Mayurakshi. The Dam is in the background.

In order to develop sources of irrigation and power in the early Five-Year Plans the Indian Government gave priority to the exploration of the country's river systems. Canadian knowhow was enlisted at the very beginning of the First Plan, when the Mayurakshi Hydro-Electric and Irrigation Project was initiated in West Bengal and Bihar. Since then, Canada has provided Rs 121.3 crore in grants, development loans and export credits for power and irrigation projects in India. Another Rs 150 crore has been spent in Counterpart Funds. Together with the two Rajasthan atomic power projects, these undertakings will, when completed, provide 1896 MW of power, while related irrigation projects will bring water to some 8.20 lakh hectares of formerly dry land.

The mighty Kundah Project was the first biggest Canadian undertaking of its kind, outside Canada, until engineers tackled the Idikki Project. The two projects exploit the catchment areas on the two sides of the Nilgiri Hills. Kundah, on the eastern side, supplies Tamil Nadu with 343 MW of firm power out of

an installed capacity of 426 MW. Before completion of the Kundah Project in 1964, Tamil Nadu's industrialisation was hampered by a power shortage. The undertaking has speeded the electrification of the State and in many areas there is close to 100 per cent electrification of villages. A new factory in the Nilgiri foothills turns out 80 water pumps a day, using Kundah power, and the pumps have freed thousands of farmers from dependence on the monsoons.

On the western side of the Nilgiris, in Kerala, the Idikki Project is changing the face of the Periyar Valley. With an installed capacity for 780 MW (for 'peaking'), Idikki will be the biggest hydro-electric scheme in South India. The 170-metre high arch dam will be the first in India and the highest in Asia. Besides cheap power, the project will irrigate 61,500 hectares of land.

Besides the above, Canada also provided assistance for harnessing the Chambal River which flows through Rajasthan and Madhya Pradesh, in the form of export credits of Rs 5.6 crore and Rs 3.9 crore. These paid for Canadian generating and control equipment for the Rana Pratap Sagar and Jawahar Sagar power houses, which have an installed capacity of 172 and 99 MW respectively, providing power for a whole range of new industries.

Uneven rainfall is a major limitation on Rajasthan's hydel power sources. For this reason India decided to set up its second nuclear power station consisting of two reactors on the shore of Rana Pratap Sagar, near Kota. Canada is supplying the know-how and equipment for the station. The reactors form part of a major venture in Indo-Canadian collaboration which also includes the Canada-India Reactor at the Bhabha Atomic Research Centre, Trombay. The two RAPP reactors, each with an installed capacity of 200 MW, will supply power to industrial and agricultural users throughout Rajasthan and in the northern grid region. The reactors are modelled on the same pattern as the Douglas Point (Ontario) Reactor which provided the training ground for 154 Indians.

Canada has also contributed about Rs 70.2 crore in Counterpart Funds for minor irrigation works like digging of wells, provision of pumpsets, tube wells, small community diversion and storage projects, drainage, flood control and lift irrigation schemes which taken together will make for widespread improvement in agricultural production.

Farm Production

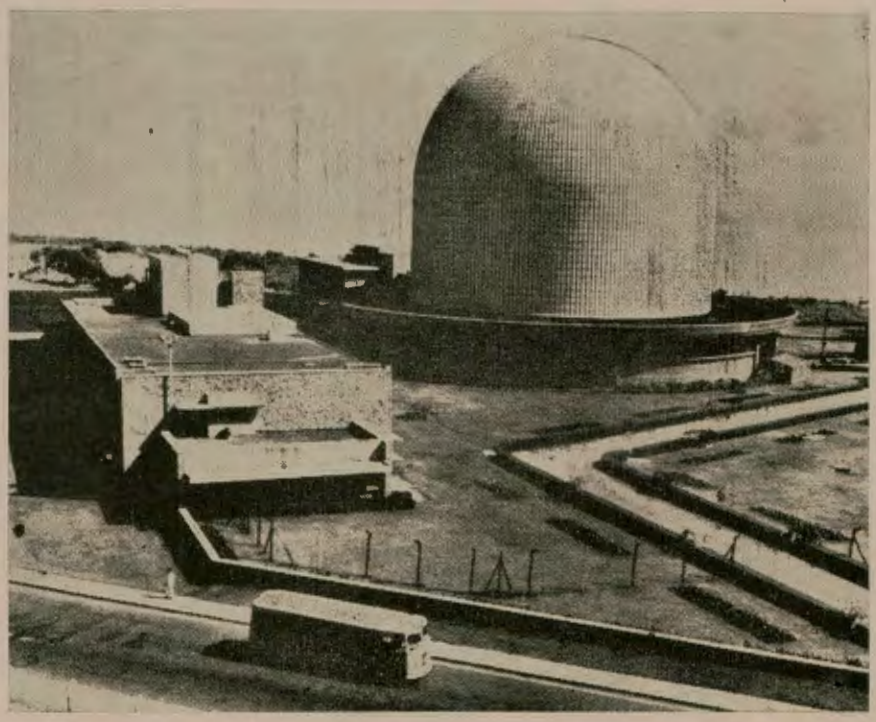
In the last few years, the coordinated use of modern agricultural techniques and improved crop strains has pushed up the production of foodgrains in India (especially wheat) to about 100 million tonnes and brought nearer the possibility of self-sufficiency in food. Canadian participation in this "Green Revolution" has taken the form of long-range programmes to improve food production with the help of fertilisers, agricultural and food research, plant protection, dairy, bakery and fisheries development and education of the farmer. In terms of money, Canada has provided about Rs 115 crore to various agencies to implement schemes for increased agricultural production.

Assured of quality supplies under these schemes, farmers have turned in improved crops of foodgrains, oilseeds, sugarcane, cotton, jute, tobacco, fruits and vegetables.

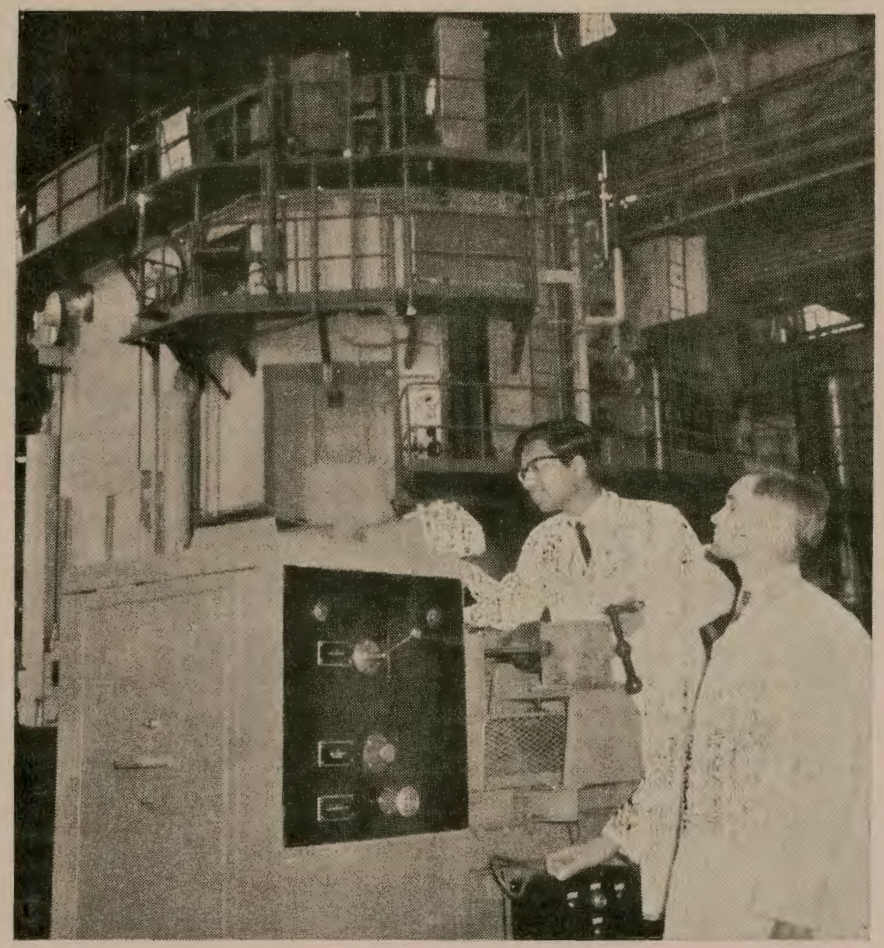
Since Indian agriculture is primarily rain-fed, Canadian experts are being teamed with the Indian Council of Agricultural Research to develop special crop varieties and techniques for dry farming areas and to devise ways of conservation and efficient use of the available water. The Canadian experts in collaboration with the Central Groundwater Board are also making a groundwater survey of hard rock areas in Andhra Pradesh. The results of the 7,700 sq. km. survey will be applied to other parts of the Deccan Plateau.

Since 1958, Canada has supplied India with Rs 14.1 crore worth of fertilisers on a grant basis and Rs 29.4 crore worth against development loans. Fertilisers provided include urea, potash, diammonium phosphate, ammonium sulphate, muriate of potash, sulphur and NPK.

Though India has huge cattle population the milk production in the country is meagre especially in regard to its needs. In 1968, Canada supplied Rs 10 crore in Counterpart Funds for dairy development and animal husbandry, covering the setting up of milk plants and milk product factories, dairy extension work, cross-breeding of cattle and improvement of fodders, poultry improvement and the establishment of



"CIRUS", the Canada-India reactor at the Bhabha Atomic Research Centre, Trombay.



Mr. A. Sharma (left) of the Health Physics Department of the Bhabha Atomic Research Centre, Trombay, is receiving training at the Health Physics Branch, Chalk River (Ottawa).

hog and sheep breeding farms. Two Canadian advisers helped Indian farmers in acquiring new technology through rural cooperatives, besides advising them on their purchasing, growing and marketing problems.

As a part of the drive to eliminate malnutrition, a public sector enterprise, Modern Bakeries Limited, set up nine bakeries for the production of fortified bread. Canada equipped three of these units located at Kanpur, Hyderabad and Bangalore.

Canada has also supplied laboratory equipment as grant assistance to the International Food Technology Training Centre in Mysore.

Besides helping the country to improve its agricultural production. Canada has provided India with valuable food assistance. Since 1951, it has supplied more than four million tons of agricultural commodities to India chiefly wheat, and almost all of it as grant assistance. Except for four years in the mid-50s, the food shipments have been a regular feature of Canadian aid, though the quantity has varied according to the size of Indian harvests. Besides tiding over India's food shortages, the Canadian assistance helps the Government to build up buffer stocks and keep the price of grain relatively stable. Over the years, the programme has also saved India large sums in foreign exchange.

Industrial Development

As a major source for the supply of raw materials, Canada has helped keep Indian industry well supplied since 1953. This has also saved India some valuable foreign exchange. Both private and public sector industries have benefited from the inflow of Canadian raw materials. It began with a Rs. 3.4 crore grant for copper and aluminium imports and later included nickel asbestos, newsprint, zinc, lead, wood-pulp, ferrow alloys and synthetic and butyl rubber. Until 1966, these commodities were supplied on a grant basis. However, now most of this assistance has been transferred to the development loan programme.

Canadian metallurgists have made a big contribution to Indian industrial development, especially in the processing of aluminium, zinc and steel. Canada has also provided four broad-gauge diesel hydraulic locomotives and spares to the Bombay plant of the Associated Cement Company.

In 1963, Rs 5.2 crore were allotted out of Counterpart Funds to pay for subsidised industrial housing. More than 10,000 units were built on 24 sites in six States.

Transport

India's transportation system has got quite a huge share of Canadian assistance. Since Independence Indian Railways have been retiring its old locomotives and rolling stock as part of a programme of modernisation. Canada has accelerated the process by supplying more than 200 locomotives. Canada has also provided selected components for the manufacture of diesel locomotives at the Diesel Locomotive Works, Varanasi in addition to 1 million Duglas Fir sleepers supplied under a Rs 3.9 crore grant for track renovation. To cover some local costs of new rail line construction Rs 1.8 crore were committed from Counterpart Funds.

In early 1950s, Canada furnished a grant of Rs 3.1 crore to pay for new buses, trucks and other vehicles for the Bombay State (now Maharashtra) Transport Commission. In 1969, eight snow-blowers were supplied to help keep Himalayan roads open in winter.

In preparation for Air India's acquisition of Boeing 747s, Canada gave Rs 2.1 crore in development loan in 1969 so that the airline could install a digital flight simulator to train its jumbo jet pilots without withdrawing one of the 747s from service. A development loan of Rs 21 lakh was also provided in 1970 for the purchase of Canadian-made seats for Indian Airlines' newly acquired Boeing 737s.

Part of Canada's assistance has gone to help the development of telecommunications and satellite communications in India. Besides providing

the knowhow Canada gave Rs 2.8 crore for the construction of India's first satellite communications station at Arvi, near Poona.

In 1959, Canada also helped India to establish a centre in New Delhi for the exchange of meteorological information in the northern hemisphere and to keep pace with the growing needs of aviation.

India expects to spend Rs 420 crore on improving domestic communications during the Fourth Plan. Canada's contribution is a Rs 28 crore development loan, representing about one-third of the foreign exchange requirement. It will pay for telecommunications equipment for three microwave routes totalling 2,130 kilometres in length and 12,000 kilometres of underground telephone cables. This will allow 600,000 new telephone connections, 30,000 more long distance circuits and a two-thirds increase in long distance calling facilities.

Scientific and Industrial Research

In the field of scientific research, Canada's major contribution is the Canada-India Reactor (CIRUS) at the Bhabha Atomic Research Centre, Trombay. Since it went into operation in 1960, the experimental reactor has been used for the development of nuclear fuels and cooling systems for power reactors, fundamental atomic research, and the production of radioactive isotopes for use in scientific and applied research.

A Canadian export credit of Rs 2.9 crore has also paid for the research wind tunnel near Bangalore, which can test the aircraft models for speed and help in advanced research in aircraft design.

In the field of health, a major part of Canadian contribution came in the form of supply of cobalt beam therapy units for our cancer research and treatment institutions. The cobalt sources were replaced every five years by Canada till the Bhabha Atomic Research Centre began producing them in 1969.

Canadian assistance in the sphere of education ranged from provision of instruction films, projectors, transformers and books to 13 cooperative training centres set up under the Second Five Year Plan to a grant for raw film stock, photographic equipment and materials and the services of a Canadian expert for the Cooperative Film Training Programme in Bombay to prepare audiovisual aids for the cooperative training centre.

In 1961, Canada committed Rs 4.7 crore in Counterpart Funds to build seven regional engineering colleges.

DEFENCE PRODUCTION GOES UP

IN 1968-69, seven Defence Production undertakings accounted for a total production of the value of Rs 134 crore, which is more by Rs 45 crore worth of production achieved in 1967-68. Three of them : the Bharat Electronics, the Bharat Earthmovers and the Garden Reach Workshops declared dividends. The foreign exchange earned by these undertakings was over Rs one and a half crore, the bulk of which was earned by the Mazagon Dock alone.

A milestone in defence production was achieved by the Hindustan Aeronautics, which turned out recently the first MIG aircraft built from imported raw materials. The HAL also achieved the completion of the 1000th aircraft over a period of 18 years commencing from 1951. It has now taken up a Rs 4.5 crore project for the manufacture of various types of aircraft, instruments, wheels and brakes, hydraulic equipment and ejection seats which are at present being imported. The range of manufacures by the HAL includes the jet ground-attack fighter HF-24, the supersonic intercepter Mig-21, the jet fighter Gnat aircraft, the trainer HJT-16, the Alouette helicopters and the transport aircraft HS-748.

In the field of electronics, the Bharat Electronics recorded a stepped-up production of Rs 24 crore comprising a wide range of sophisticated equipments like specialised transmitters, receivers, trans-receivers and radars. The BEL is to take up the manufacture of integrated circuits to meet the requirements of futuristic electronic equipment, and a semiconductor development laboratory to develop hybrid micro-circuits.

Radar and micro-wave components production will be further agumented with the establishment of a new factory at Ghaziabad.

The third Leander-class frigate is in an advanced stage of production at the Mazagon Dock which has already launched the first two in the same class. The construction of an inshore mine-sweeper has also been completed. Having attained capacity to build various types of ships, the undertaking has improved its capacity for ship repairs of different descriptions. The large variety of ocean going vessels and crafts which the Dock is capable of manufacturing includes destroyers, frigates, passenger ships, passenger-*cum*-cargo ships, cargo ships, dredgers, tugs, barges, trawlers, launches, floating cranes, floating docks, special-purpose puntoons and assault boats.

Ordnance Production

The 27 ordnance factories manufacturing a wide range of items for the Services, have touched an annual production figure of Rs 110 crore in value, a three-fold increase over the 1962 production, thus making the country completely self-sufficient in small arms and related amunition.

Several new factories have been added during the last eight years and a modernisation programme is in full swing in a number of others. The new projects include a rocket propellant and ballistite plant, modernisation of TNT capacity at one of the Kirkee factories and replacement of the old nitrocellulose plant with a modern and sophisticated plant at Aruvankadu.

A modern vehicles factory is being established at Jabalpur to double the present rate of production, and a modern foundry, as its adjunct, to take up the production of grey-iron castings, malleable castings and graphite castings.

At the cable factory at Chandigarh, new capacity is being created for the manufacture of specialised cables and wires used in multi-channel communication.

The Heavy Vehicles Factory at Avadi has successfully increased the indigenous content in the manufacture of Vijayanta tanks, considered the best among medium tanks in the world.

PLANNED DEVELOPMENT AND PUBLIC COOPERATION

D. P. SETHI

THE real success of democratic planning for social and economic development depends on active co-operation and participation of people through all stages of development. This realisation of the significance of people's participation has formed a part of the strategy for development in all developing nations and has been strengthened by experience.

The concept of public cooperation implies organised mutual help through voluntary organisations, cooperation between the people and voluntary organisations and between voluntary organisations and the government. It is a two-way process used by democratic societies to utilize to the maximum extent human resources for increased human welfare.

The First Five Year Plan described public cooperation as the principal force and sancation behind planning. It recognised that a plan, however well conceived, has little chance of success if the people through their own voluntary efforts do not take initiative and give active support. There was hardly any programme in which the role of public cooperation was not seen. The programme of national extension and community projects initiated for all-round development of rural areas depended largely on public cooperation. The specific programmes of public cooperation included in the Plan were labour and social service camps for students, planning forums in universities and colleges, creation of voluntary organisations and the establishment of the Central Social Welfare Board. All these programmes were meant to stimulate people's participation in development. Voluntary organisations were recognised as the most effective channel for enlisting people's participation.

In the First Plan period, a National Advisory Committee on public cooperation was set up under the chairmanship of the Prime Minister and with representatives of leading all-India voluntary organisations to guide and advise the Government in various aspects of public cooperation. The monetary equivalent of the contributions made by the people in the shape of voluntary labour, cash and kind was roughly estimated to be Rs 20 crore during the First Plan period.

Separate Division

The programmes of public cooperation were further strengthened in the Second Plan and a provision of Rs 5 crore was made for various schemes. The most important step taken was the setting up of a separate Public Cooperation Division in the Planning Commission in 1956 to :

provide secretariat assistance to the National Advisory Committee on Public Cooperation;

review the progress of various public cooperation schemes from time to time;

assist and guide the voluntary organisations in participating in development schemes;

undertake research studies and pilot projects;

find out the scope and extent of public cooperation in different plan programmes; and

evolve methods and techniques of stepping up the same.

An inter-ministerial Committee, called the Coordination Committee, was set up to facilitate systematic and integrated action on the part of the State Governments and ministries of the Central Government.

In the Second Plan period, the Community Development Programme expanded considerably in terms of coverage and content, to become the biggest field of public cooperation. The voluntary contribution in the Community Development programme in cash, kind and service were estimated at Rs 100 crore during the decade 1952-62. The people's contributions in local development works amounted to nearly Rs 15 crore out of a total expenditure of Rs 33 crore. The other important schemes executed through community effort were the mid-day meal and school improvement schemes, adult education, *balwadis,* health insurance schemes, *bhoodan* and *gramdan.* The achievements of public cooperation in the words of Jawaharlal Nehru are "the spirit of the people, the removal of inertia in thought and action, the development of team spirit in national work and the sense of partnership of the people in greater undertakings."

The Third Plan further enriched the content of public cooperation programmes by explaining in more precise and specific terms the sphere of voluntary action. It emphasised the need for research into the dynamics of social change through public cooperation and study of attitudes of various groups towards problems and programmes placed before them and effectiveness of methods and techniques employed for securing cooperation and participation of the people in different programmes. It also urged the need for part-time and whole-time workers engaged in voluntary work at different levels so that they can be effective in maximising people's participation. The provision for programmes of public cooperation was doubled as compared to the Second Plan.

The areas of public cooperation have been expanding since the beginning of planning in our country. In the beginning there was emphasis on mobilising people's participation in the Community Development programme, utilising voluntary labour in rural areas, involving students in projects of public utility, disseminating information on Five-Year Plans through Planning Forums and creating and strengthening voluntary organisations in the field of social welfare. Experiments were made with schemes like local works programme under

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MONEY DEPRECIATION IN FIFTIES AND SIXTIES

A. DUTTA

AN attempt is made here to estimate the changes in the purchasing power of money in India and 56 other selected countries during the fifties and the sixties. The countries are arranged in accordance with the IMF classification, into (a) industrial countries—15, (b) other developed countries—10, and (c) less developed countries—32. For the purposes of finding out the purchasing power of money the reciprocals of the cost-of-living or consumer price indexes of different countries have been used. The consumer price index which is compiled in all these 57 countries reflects, to a large extent, the retail prices in the countries concerned excluding certain transactions of a conspicuous nature. While the data are taken from the International Financial Statistics of the International Monetary Fund for all countries excluding India, those for India are obtained from the publications of the Labour Bureau of the Government of India. The IFS figures of cost-of-living/consumer price indexes are available with 1958 as base upto 1963 and with 1963 as base for the years from 1963 to 1969. For the entire period, therefore, a uniform base with 1963 has been used by applying the suitable conversion factors for each country for the earlier years. It must be noted, however, that the weights do not necessarily correspond to the base period in all the cases. For India, the Working Class Consumer Price (General) Indexes with 1949 as base have been shifted to 1963 for purposes of comparability of data with those of other countries. In this case also, the relevant conversion factors have been used for the earlier years. The average indexes of the value of money for different countries during the fifties and the sixties together with the annual average rates of depreciation in the purchasing power during each of the two decades as also for the entire period is given in a statement separately.

It is interesting to see from the figures given in Table I that during the sixties the extent of depreciation in the internal values of currencies as compared with the preceding decade ranged from 14.2 per cent to 35.4 per cent for the industrial countries, from 20.7 per cent to 55.5 per cent for the other developed countries and from 0.8 per cent to 97.2 per cent among the less developed countries.

However, among the less developed regions, the extent of depreciation during the sixties was not sizable in respect of such countries as Guatemala (3.5 per cent), Panama (5 per cent), El Salvador (7.6 per cent), Dominican Republic (8.6 per cent), Iraq (10.2 per cent) and Ceylon (10. 6 per cent), whereas the value of money for Malaysia remained surprisingly stable, the depreciation being of the order of less than 1 per cent. In India, the internal purchasing power was reduced by 35.6 per cent during the sixties as compared with the preceding decade. On the other hand, six countries, namely, Argentina, Bolivia, Brazil, Chile, Korea and Uruguay witnessed depreciation of currency ranging from 74 per cent in the case of Korea to 97 per cent in the case of Brazil. These six countries taken together recorded an average depreciation of 91.5 per cent during the sixties as compared with the fifties. The inclusion of these six countries in the world total has artificially inflated the extent of depreciation between the two decades. For while the depreciation in the internal value of the currencies of 57 countries *including* these six was 40.7 per cent, their *exclusion* would bring down the decline in the purchasing power to 27.1 per cent during the sixties as compared with the earlier decade.

For the group of industrial countries, the internal value of currency depreciated annually by 3 per cent during the fifties, by 3.3 per cent during the sixties and by 3.2 per cent during the entire period under review. For the other developed countries, rates of depreciation were slightly higher, around 4.5 per cent. Thus for all the developed countries, comprising 25, the annual average rates of depreciation were a little less than 4 per cent during each decade. This was not so for the less developed countries. In this case, the purchasing power of currency depreciated annually by 3.9 per cent during the fifties and by 9.8 per cent during the sixties with the result that for the entire period the annual depreciation was 6.9 per cent.

There were extreme cases of countries showing an *appreciation* of the value of their currencies as in respect of Iraq and Syria during the fifties and of countries whose currencies depreciated by over 30 per cent annually as in respect of Bolivia and Korea during the sixties. In India, the annual average depreciation was moderate and ranged from 1.8 per cent during the fifties to 5.4 per cent during the sixties accounting for an annual depreciation of 3.6 per cent for the whole period. But the high rate of depreciation for the group of less developed countries during the sixties was attributable, mainly, as already stated, to the inclusion of the six countries mostly located in Latin America which suffered from a state of acute inflation during the two decades under review. Taken together, as the figures in Table 2 show, they recorded annual depreciation to the extent of 21.4 per cent during the fifties and 22.4 per cent during the sixties accounting for an annual depreciation of 21.9 per cent in their purchasing power for the period as a whole. If these countries are excluded, being extraordinary cases of hyper-inflation, the less developed world—comprising 26 countries—would show an annual depreciation of 2.8 per cent during the fifties (which was lower than that of the industrial or other developed countries), 4.1 per cent during the sixties and 3.5 per cent for the entire period,

TABLE 1 Depreciation of Money

	Extent of Depreciation during the sixties over the fifties		Annual average rate of depreciation					
			in fifties		in sixties		entire period	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Industrial countries (15)	14·2	35·4	1·0	5·8	2·1	5·1	1·7	4·7
Other developed countries (10) ..	20·7	55·7	0·8	7·5	1·8	9·4	2·3	7·9
Less developed countries (32)	0·8	97·2	(—)0·5	36·0	0·4	31·1	0·5	23·0

TABLE 2 Indexes of value of money and annual average rates of depreciation 1963=100

	Value of money indexes			Annual average rates of depreciation		
	in fifties	in sixties	in Depreciation	in fifties	in sixties	Entire Period
Industrial countries	124·1	93·9	24·4	3·0	3·3	3·2
Other developed countries	136·8	90·5	33·9	4·9	4·4	4·5
All developed countries (1 +2) ..	128·9	92·4	28·3	3·6	3·8	3·7
Less developed countries	141·8	73·2	48·4	3·9	9·8	6·9
Six less developed countries) ..	473·9	40·1	91·5	21·4	22·4	21·9
Group (4) *minus* group (5)	122·2	90·4	26·0	2·8	4·1	3·5
All countries (3+4)	135·9	80·6	40·7	3·8	7·6	5·7
All countries *minus* six less (7—5) developed countries ..	125·3	91·4	27·1	3·2	3·9	3·6

*Comprising Argentina, Bolivia, Brazil, Chile, Korea and Uruguay

TABLE 3 Frequency distribution of countries according to annual rates of depreciation of money

	in fifties			in sixties			entire Period		
	Industrial countries	Other developed countries	Less developed countries	Industrial countries	Other developed countries	Less cevelop-ed countries	Industrial countries	Other developed countries	Less developed countries
Value of money appreciated	..	..	2	..	..	..	..	..	..
Value of money depreciated									
Annually : Below 1 per cent ..	..	1	4	..	..	3	..	..	3
1 to 1·9 per cent	4	..	7	..	1	6	2	..	5
2 to 3·9 per cent	6	3	4	13	5	11	10	6	12
4 to 5·9 per cent	5	3	4	2	3	3	3	2	2
6 to 7·9 per cent	..	3	3	..	..	1	..	2	1
8 to 9·9 per cent	..	..	2	..	1	2		..	2
10 to 14·9 per cent ..	..	..	2	..	..	2	..	..	1
15 to 19·9 per cent ..	..	..	1	..	..	2	..	..	1
20 to 29·9 per cent ..	..	..	1	..	..	..	..	..	5
30 per cent and above ..	..	..	2	..	..	2	..	..	..
Total :	15	10	32	15	10	32	15	10	32

The exclusion of these six countries from the world total would also reduce the annual world depreciation to 3.2 per cent during the fifties, 3.9 per cent during the sixties and 3.6 per cent during the two decades.

Table 3 shows the frequency distribution of 57 countries according to the annual rates of depreciation in purchasing power during each of the two decades and the entire period. As already stated, the less developed countries witnessed an increase in the purchasing power of their currencies during the fifties. All the industrial countries recorded depreciation varying from 1 per cent to 6 per cent while all the other developed countries witnessed depreciation between 2 per cent and 8 per cent during the entire period. More than fifty per cent of the 32 less developed countries covered in this study had depreciation from below 1 per cent to 4 per cent including India during the period under review though the six countries under this group referred to earlier recorded depreciation of their currencies between 8 per cent and 30 per cent or even more.

However, it is clear that there was a further erosion of internal purchasing power in the world during the sixties as compared with the earlier decade. The depreciation in the purchasing power of the Indian rupee was much lower than the average depreciation for the world if we include the six countries referred to above. Excluding these countries the annual average depreciation of money in India was lower than the world average during the fifties, slightly higher during the sixties and exactly the same for the period as a whole.

TO KNOW INDIA

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Statement on depreciation of money in different countries (1963-100)

	Index of value of money			Annual average rates of depreciation		
	in fifties	in sixties	Percentage	in fifties	in sixties	entire period
A. Industrial countries						
Austria	126·6	94·3	25·5	5·6	3·4	4·5
Belgium	112·2	93·3	16·8	1·7	2·6	2·1
Canada	113·1	94·7	16·3	2·3	2·4	2·4
Denmark	134·2	91·0	32·2	3·6	5·0	4·3
France	147·9	95·6	35·4	5·8	3·7	4·7
Germany	117·5	96·0	18·3	1·0	2·4	1·7
Italy	128·2	94·5	26·3	2·4	3·6	3·0
Japan	138·1	92·3	33·2	2·7	5·1	3·9
Luxembourg	110·7	95·0	14·2	1·9	2·1	2·0
Netherlands	125·2	91·5	26·9	3·6	3·8	3·7
Norway	129·5	92·9	28·3	4·7	3·4	4·0
Sweden	132·1	92·8	29·8	4·1	3·6	3·9
Switzerland	117·1	94·3	19·5	1·1	3·1	2·1
United Kingdom	127·2	93·8	26·3	4·1	3·3	3·7
United States	113·1	95·7	15·4	2·1	2·3	2·2
B. Other developed countries						
Australia	123·5	94·3	23·6	6·0	2·3	4·1
Finland	142·5	88·7	37·8	3·3	4·7	4·0
Greece	128·2	96·2	25·0	6·1	1·8	4·0
Iceland	162·6	80·2	50·7	6·4	9·4	7·9
Ireland	125·8	91·4	27·3	3·6	3·7	3·7
New Zealand	125·8	93·0	26·1	4·7	3·0	3·9
Portugal	115·6	91·7	20·7	0·8	3·9	2·3
South Africa	120·3	94·6	21·4	3·6	2·1	2·9
Spain	159·5	87·0	45·5	5·7	5·4	5·6
Turkey	203·3	90·4	55·5	7·5	5·5	6·5
C. Less developed countries						
Argentina	704·2	58·3	91·7	19·8	18·8	19·3
Bolivia	381·7	86·8	77·3	36·0	5·7	20·9
Brazil	1,063·8	30·1	97·2	14·5	31·1	22·8
Ceylon	108·1	96·6	10·6	1·2	2·2	1·7
Chile	565·0	52·0	90·8	26·7	19·2	23·0
Columbia	216·5	82·4	61·9	7·6	9·7	8·6
Costa Rica	119·2	98·7	17·2	2·5	2·1	2·3
Dominican Republic	112·5	102·7	8·7	0·8	1·2	1·0
Ecuador	117·8	94·0	20·2	1·4	3·8	2·6
El Salvador	106·5	98·4	7·6	4·1	0·4	2·3
Ghana	133·2	82·0	38·4	3·6	6·3	5·0
Guatemala	103·5	99·9	3·5	1·8	0·4	1·1
Honduras	111·2	94·9	14·7	2·5	2·1	2·3
India	125·8	81·0	35·6	1·8	5·4	3·6
Iran	152·4	96·6	36·6	3·7	2·5	3·1
Iraq	111·6	100·2	10·2	(—) 0·5	2·0	0·7
Israel	171·2	92·4	46·0	9·0	4·9	6·9
Korea	279·3	72·6	74·0	34·2	11·1	22·7
Malayasia	100·4	99·6	0·8	1·9	0·7	1·3
Mexico	144·1	94·3	34·6	6·7	2·6	4·6
Morocco	138·5	98·9	28·6	4·3	2·6	3·5

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HUMAN RESOURCES AND ECONOMIC GROWTH

SURESH R. CIRVANTE

THE economic development of a country depends, to a considerable extent, not only on the availability of physical capital but also on human capital. Nevertheless, physical capital deficiency, which is conspicuously reflected in the small amount of capital per worker in a developing country, is often singled out as the main factor retarding economic growth.

Capital in the form of steel plants, railways, factories and dams is considered essential for accelerating the growth of an economy. Consequently, it is felt that people in developing countries are condemned to a low rate of economic progress for they generally display a high propensity to consume and spend their meagre savings out of their low incomes in short-term speculative investments rather than productive investment in capital goods.

This view of development which stresses the importance of physical investment is being gradually modified since factors like education, health, management, organisation, administration, research and technology are also recognised as playing a dominant role in economic growth. This has led to the widening of the concept of capital in the capital-output model to include besides physical investment, investment in human resources or 'investment in man.'

Notwithstanding the massive economic aid to various underdeveloped countries, their development has been far below expectations as there was too little investment in human capital as compared to the investment in plants and equipments. On the other hand, the Marshall Aid Plan in Europe was a great success in rebuilding the war shattered economies, thanks to the rich educational capital of the West European nations.

It is obvious that education is a very vital form of investment. It is the recognition of this fact that has led nations like the United States of America, Japan and the Soviet Union to provide educational facilities to their people on a systematic basis and to attain remarkable economic progress. In the several States of the U S A. their constitutions have incorporated the right of all children to free elementary education. Japan has given immense importance to education in order to emulate and even excel the industrial progress of the West. The Soviet Union has increased educational facilities at all levels apart from making huge investment in steel and heavy industries and the Scandinavian countries have legislated on universal and compulsory education.

Productive Investment

Education is a highly productive form of investment that will often bring a greater increase in national income than an equal amount invested in railways, dams or other tangible goods. The overwhelming importance given to physical investment has often led to a low priority being given to genuine and radical reforms in the sphere of education.

There is a tremendous wastage in all forms of education in developing countries like India. The situation calls for a judicious use of resources and not merely an increase in the volume of resources. Scarcity of well trained teachers, low quality standards and wrong orientation of schooling result in enormous amount of miseducation. All schooling should be modernised to include technical and scientific subjects and a large number of students should choose technical and professional schools for their advanced education in order to accelerate the process of economic development. It is obvious that an oversupply of generalists has led to the growing number of educated unemployed, especially in India.

The situation calls for a radical change in the entire educational system of developing countries like India. Scarcity of suitable teachers and essential facilities besides resistance on the part of students, parents and even teachers have hampered the progress of vocational and professional education. A dislike for manual work and a desire for securing white-collar jobs have affected the way people approach education. The notion that education provides an escape from manual work should be rooted out.

The entire basis of education must, therefore, be revolutionised and an army of good teachers, well informed, well paid, competent and devoted to their duty must be secured. It is clear that spread of literacy and education on a mass scale can make a signal contribution to economic development.

A country must be sure that its educational investment is adapted to its needs and these needs must be translated into suitable courses and good academic discipline, so that the kind of educational capital most appropriate to the needs is secured at the lowest cost. In this connection, the Government of a country may as well direct the course of education to ensure that there are more economists, doctors and engineers than lawyers, philosophers and historians.

Health and Nutrition

Health is no less important than education and the two cannot be isolated. A child is able to take adequate benefit of schooling provided he enjoys good health and similarly an adult is able to use his knowledge and experience to the extent he is physically fit and alert. Thus efficiency of labour and consequently the quality and volume of output largely depend upon the state of a nation's health.

Serious undernutrition and malnutrition among the masses in India and some other developing countries have led to their ill-health besides bodily and mental weakness, although they spend more than half their income on food. Moreover, they do not have adequate clothing, housing and sanitary facilities to keep them reasonably fit. In these circumstances, rise in consumption of essentials, especially food, can improve their health and productivity and accelerate the development of the economy. To

"The destiny of our beloved land lies not in us, the parents, but in our children" —*Mahatma Gandhi*



In Rourkela, Durgapur and Bhilai where its steel plants are located Hindustan Steel has set up 79 schools for the workers' children.

On this occasion of Gandhi Centenary, we shall be presenting more than a thousand Gandhi Memorial Awards to those children of our employees who come first in their classes. Also more scholarships are being earmarked for meritorious but needy students, striving to acquire higher education. Additionally it is planned to provide assistance to voluntary efforts in the form of employees educational trusts.

On what was greenfield site or wilderness less than two decades ago, Hindustan Steel today is engaged in two basic pursuits—to produce more steel that will accelerate the country's development, and to create more wealth that will make a strong India.

HINDUSTAN STEEL

raise the productive power and efficiency of the people in developing countries, diets must be improved and the incidence of debilitating diseases reduced. This formidable task can be accomplished by provision of nourshing food, proper medical facilities, provision of safe water supplies, slum clearance, better housing etc.

Apart from the need for substantial investment in human resources and physical capital, there is a crying need for development of entrepreneurial capital to ensure a rapid growth of a developing economy. A variety of obstacles hamper entrepreneurship such as unstable political conditions, restrictive effects of traditions and customs, lack of response to monetary incentives and high risks involved in new enterprises. This situation calls for development of entrepreneurial capital through various pilot projects which may be undertaken by the Government to demonstrate the utility of technical innovations and to train administrators and technical personnel in the skills of applying modern production methods.

Agricultural research and the spread of agricultural extension services can teach modern techniques to the farmer and would yield bigger returns. However, unless land reform is introduced, improved farming methods may have little chance of application. This may require legislative and administrative measures which may hurt vested interests and cause political difficulties. Nevertheless, they can play a significant role in economic growth to the extent they broaden entrepreneurial horizons and help diffusion of enterprise.

Entrepreneurship

Government can indirectly stimulate entrepreneurship by establishing secure property rights, maintaining economic and political stability, providing the requisite infrastructure of roads and power supply and introducing favourable fiscal and monetary policies. Training of skilled personnel at various levels besides training of Government officials in administrative skills and of businessmen and industrialists in skills of management and organisation can make a valuable contribution in imparting the necessary skills for entrepreneurial activities required for rapid economic growth. Such training can be secured through public administration institutes, management institutes and business schools.

Thus the development of entrepreneurial capital besides physical and human capital can step up the rate of economic growth in developing countries. With the development process becoming cumulative, a large supply of entrepreneurs will be generated. As entrepreneurship contributes to development so will development contribute to entrepreneurship. The concept of capital in the capital output model may well be further widened to include entrepreneurial capital besides physical and human capital to make it more realistic and relevant especially in the context of developing countries.

PUBLIC COOPERATION

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which small projects for construction of village dispensaries, community centres, panchayat-ghars, libraries, oads, culverts, wells and minor irriation projects made good progress.

A review of the latter trends would ndicate that from a project-oriented rogramme, public cooperation has merged into an approach and a trategy to be used in all areas of lanning and development. It is reased that with so much poverty and norance in the country there is no mit to the scope of public cooperaon and voluntary service in mitigatg the hardships of the under-privied. Accordingly, the emphasis of oluntary service has shifted from elfare, in the restricted sense, to the alisation of broader socio-economic ms. Voluntary organisations are toay expected to play a part in creating climate and conditions favourable r smooth and effective functioning panchayats and cooperatives, and tend their activities to rural areas r pragrammes of social education, agricultural production, village industries, sanitation and hygiene, construction works, welfare of the weaker sections, and women and child welfare and youth programmes.

The wider aims of public cooperation are today set at creating a sense of oneness and a common outlook by engaging people in simple activities of service to the community, promoting progressive socialisation and cooperative growth as a basis of social and economic order to be created in the country; and creating a desire to work for the good life which all can share. Thus, public cooperation has come to be viewed as a mass movement for social change through people's effort. It is a response to the call of social revolution confronting the country. Perhaps this is the reason for decentralisation of the administrative organisation for promoting public cooperation from the Planning Commission to various Ministries and Departments at the Centre and in the States.

The need for imparting training to leaders of voluntary organisations and conducting research into the problems of public cooperation was recognised from the initial stages. The National Advisory Committee on Public Cooperation, therefore, recommended the setting up of the Central Institute of Research and Training in Public Cooperation which was established in February, 1966.

The main functions of the Institute are to study, strengthen and promote voluntary action through voluntary organisations; to develop ways and means of promoting people's participation in national development plans; and generally to act as a liaison between Government and voluntary organisations by interpreting one to the other. The Institute performs these functions by providing training to voluntary workers and officials, conducting research on subjects related to public cooperation, and publishing suitable literature.

New pilot projects to help

Optimum Use of the Country's Water Potential

FOUR new pilot projects for efficient soil and water management have been launched during the current financial year. The new projects will be located at Kakrapara in Gujarat, Girna in Manarasntra, the Rajasthan canal area and Mahanadi Delta in Orissa. These would be in addition to the existing three projects at Bellary in Mysore, Azamgarh in Uttar Pradesh and Patiala in Punjab. Some are proposed to be set up within the next two or three years with the ultimate object of having one such project in each State.

The water and soil management projects are designed to increase the utility of the available water resources as water is the most essential input for Indian agriculture today.

Recent studies have proved that with efficient methods of irrigation, proper levelling of fields and a knowledge of water requirements of crops and cropping patterns, the productivity of a given quantity of water can be increased by 200 per cent. The loss of water caused by unregulated irrigation of paddy, for instance, can be as high as two-third of the quantity applied. The excess is not only a waste of water; it damages the soil when drainage is inadequate and salinity exists. This hazard has already become evident in many States. Again, in the case of Mexican wheats, it has been found that four irrigations applied at critical periods of growth are almost as productive as six or more given at regular intervals. In certain situations where soils are sandy, the lining of field channels or the use of the sprinkler system can bring a saving of 30 per cent of the water. The lining of canals and distributaries is also called for when seepage losses are unduly heavy and water is scarce. The use of even limited quantities of groundwater to grow paddy nurseries in the command areas of Nagarjunasagar Project has permitted the utilisation of surface water for an earlier *rabi* crop and enabled two crops to be grown instead of one.

In view of these advantages of water management, it was decided to set up pilot projects in the States in the Central Sector to introduce better methods of water utilisation and irrigation practices. The first three projects, in Mysore, Uttar Pradesh and Punjab, each covering an area of about 4,700 hectares, were launched in 1968-69 with USAID technical collaboration. It has been successfully demonstrated, under these pilot projects, that a good wheat or groundnut crop can be raised on sand dunes with the aid of sprinklers. The benefits of land-levelling, underground pipelines and lining of irrigation channels have also been established and the farmers are showing enthusiasm to adopt these measures. Under this programme officers and technicians from States are also being trained in the techniques of water management.

These projects are under the supervision of the Water Management Division which was started three years ago under the Union Department of Agriculture. It also examines the water utilisation aspects of the new irrigation projects before they are sanctioned by the Central Water and Power Commission. This Division is manned by irrigation and drainage engineers, irrigation agronomists and soil scientists. Technical bulletins and guidelines on various aspects of irrigation and water management are also issued periodically.

Researches have to be undertaken at the State level to identify problems in different areas so that corrective measures may be adopted for the improvement of water management to meet—the local needs. Ultimately each one of the 585 irrigation projects —109 major and 476 medium ones— will have to be subjected to proper water management studies, the responsibility for which will devolve on the States. For this it is proposed to initiate joint Centre-State studies in a few project areas.

Programme for the integrated development of ten selected major command areas has also been centrally sponsored under the Fourth Plan. This programme, aimed at a balanced all-round development of the areas, emphasises the optimum utilisation of available water as the prime necessity. Under this programme, the Central Government provides financial assistance for strengthening infrastructure facilities with regard to rural communications and market complexes.

DEPRECIATION OF MONEY

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Pakistan ..	119·5	90·1	24·6	1·8	3·5	2·7
Panama	103·1	98·0	5·0	0·1	1·0	0·5
Peru	181·5	78·1	57·0	7·7	9·0	8·3
Philippines	120·3	92·0	23·5	0·5	3·9	2·2
Syria	110·9	94·9	14·4	(—) 0·3	1·8	0·7
Thailand ..	120·2	95·7	20·4	4·9	1·8	3·3
Tunisia	112·7	91·3	19·0	4·1	2·3	3·2
UAR ..	100·0	86·0	14·0	0·8	3·2	2·0
Uruguay ..	432·9	18·3	95·8	10·4	30·1	20·3
Venezuela ..	108·8	96·4	11·4	1·6	1·0	1·3
Viet Nam ..	145·1	53·9	62·9	8·3	14·0	11·1

Note :——For India the Working Class Consumer Price Indexes have been used, the source being the Labour Bureau of the Government of India.

Source :—— International Financial Statistics (IMF)

PRESS IN INDIA

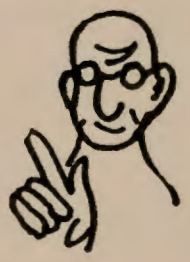
INDIA is a country of continental proportions : everything here seems to have a Himalayan dimension. We are the most populated democracy with the largest number of illiterates while paradoxically we have the largest number of students on roll. Therefore, little surprise that we also have the largest Press—10,281 to be precise, excluding 2,545 other periodic publications not classified as newspapers. In respect of dailies, India ranks second in the world with 650 of them. The number of languages—52, (11 of them foreign) in which these papers are published also appears to be the largest anywhere. Fifty per cent of these papers are concentrated in Maharashtra, Uttar Pradesh, Delhi and West Bengal. Hindi with 2,508 publications leads not only in the number of papers published but also in the list of fresh arrivals. Both Hindi and English account for two-fifths of all the papers published in the country.

Though there has been nearly 68 per cent rise in the number of papers since Independence, there are 14 newspapers which have clocked a century—seven of them in English, four in Gujarati and one each in Marathi, Tamil and Portuguese. Those halfway to this performance number over 200. "Bombay Samachar", a Gujarati daily from Bombay, founded as a weekly in 1822 and converted into a daily 115 years ago, is the oldest existing newspaper. When it comes to copies sold we probably touch another record figure—but in the reverse direction. The total circulation of these papers is a mere 27 million, one-fourth of it claimed by the daily press. The largest readership—over 50 per cent—belongs to Hindi, English and Tamil papers.

The ownership pattern is also revealing. Sixtyfive chains owning 222 newspapers commanded a circulation of well over six million or more than one-fourth of the total overall circulation. Their hold on the daily press is more eloquent—well over five million or one-fifth of the total circulation. However, individual ownership was as high as 59.5 per cent. Nineteen political parties owned 84 papers circulating 137,000 copies. Out of 398 official publications, 224 are brought out by the Union Government, more than half of them from the Capital. Foreign missions in India with only 111 publications commanded a circulation as good as 14,18,730.

The legion of correspondents was as large as 3,153 associated with 180 dailies. Over a hundred Indian correspondents are based overseas. The desk has a rather sad bargain with a comparatively lower figure of 2,809 of them working in 287 papers. Another sad feature is that 104 of the 650 dailies were hand-composed as against a restricted number of 'big' dailies using rotary. Yet a commendable breakthrough in technological advance was achieved by the "Hindu" which introduced fascimile method of printing for bringing out its Coimbatore and Bangalore editions. The "Hindu" is also the only Indian daily to have won the World Press Achievement Award given by the American Newspaper Publishers Association. The Capital has its own share of pride in that it is the home of the largest number of papers—1,153.

The subjectwise analysis of the vast expanse of the Fourth Estate is quite rewarding. As against the largest number—3,259 with a circulation over five million—of papers devoted to news and current affairs, those devoted to religion and philosophy number 1,098 approaching two million in circulation. Commerce and industry being the areas of post-Independence expansion, 444 papers in this category enjoying a circulation of 431,000 do not seem to fare well in comparison to the film press which, though 286 strong, commands a circulation of over one and a half million. The more specialised categories obviously have a more modest record: engineering & technology (184 papers circulating 176,000 copies), agriculture and animal husbandry (167 papers selling 347,000 copies), science (106 papers with 161,000 copies sold), transport and communications (99 papers totalling a circulation of 187,000), insurance, banking and cooperation (96 papers accounting for 124,000 copies sold), finance and economics (76 papers selling a total of 96,000 copies), art (41 papers reaching 32,000 households), sports (39 papers with 57,000 copies in circulation) and radio and music (38 papers enjoying a circulation of 159,000 copies). However, law and public administration (206 papers with a circulation of 259,000 copies), labour (204 papers totalling a circulation of 226,000) and education (199 papers with 207,000 circulation) seem to be doing a shade better. Women and children appear to be more tenacious. Women's magazines numbering barely 68 command as big a circulation as 383,000 while children's magazines numbering 128, outsmart them with circulation nearly three times as high. With only 29 women on editorial staff in 1969, the educated women in this country have every reason to complain that journalism too is a man's world. A tip for the champions of Women's Lib !



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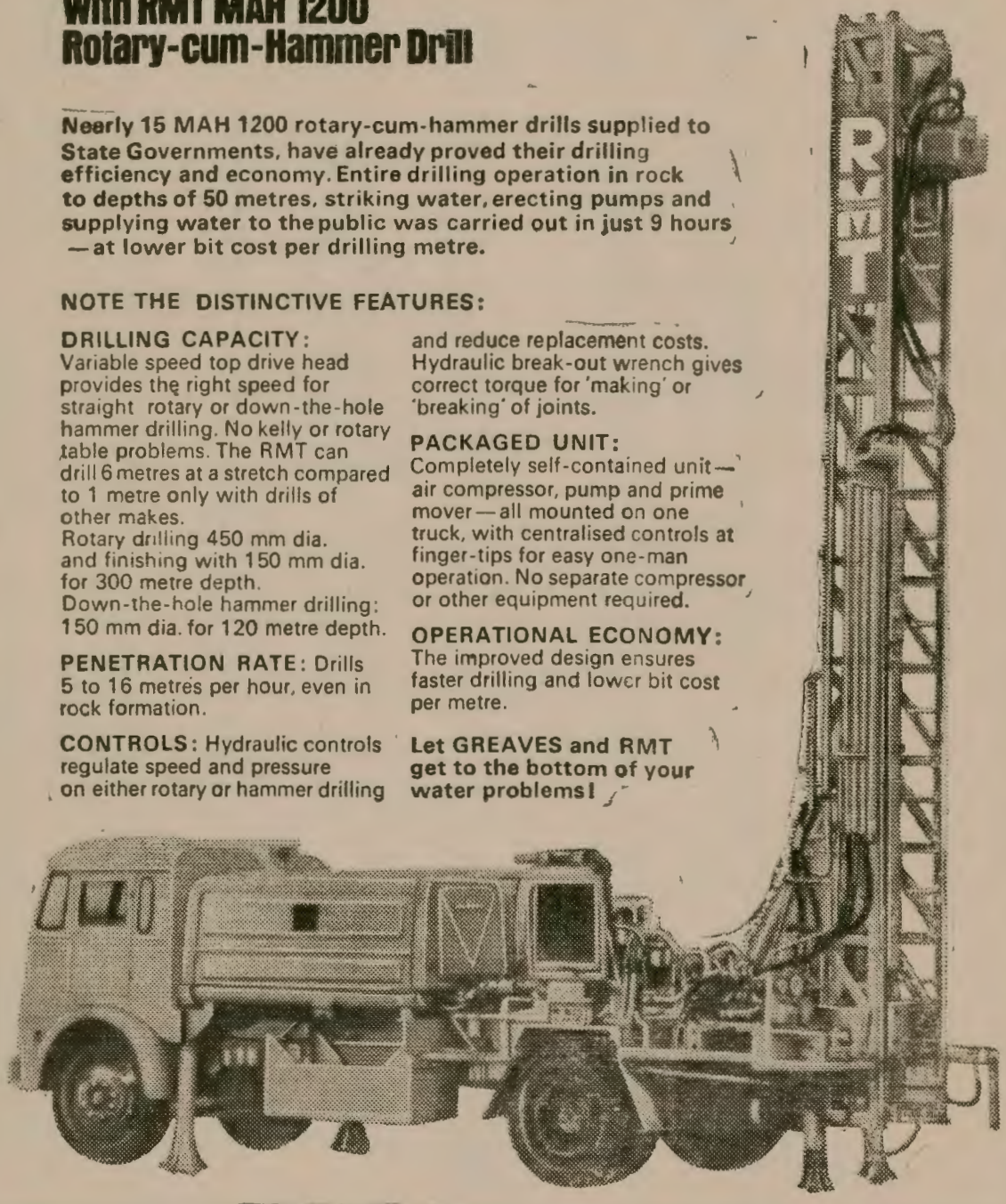
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CONSUMER CREDIT

A PROMISING AREA OF OPERATION FOR NATIONALISED BANKS

V. A. VASUDEVARAJU

CREDIT diversification is one of the main objectives of nationalisation of banks. This is being realised by the expansion of the operational activities of the public sector banks to the 'priority sectors' such as agriculture, small scale industries, road transport, self-employed persons and retail traders. The nationalised banks were advised to so formulate their schemes for diversified small lending as not to create an impression that the affluent classes only are being helped into more 'conspicuous consumption', while many socially and economically productive needs of the poor people remain unsatisfied.

During the last one year the nationalised banks made fresh advances to the priority sectors as follows : Agriculture—Rs 54 crore; Small Industries—Rs 51 crore; Retail Traders—Rs 48 crore; Road Transport Operators—Rs 17 crore. The total advances made to the priority sectors which stood at Rs 202 crore by the end of June 1969 rose to Rs 345 crore by the end of July 1970. The number of the 'constituents' of these banks has also increased considerably during the past one year, contributing to a great extent in 'fostering the banking habit' in the hitherto neglected sectors of the economy.

But the public sector banks, it seems, feel shy of extending their operational activities to an equally important area *i.e.*, Consumer Credit. Of course, one or two banks were already popularising consumer-credit-instalment scheme and almost all other public sector banks followed suit soon after nationalisation came. With the initial enthusiasm having disappeared the consumer credit now is more or less a 'forgotten element' with these institutions. As the policy makers are not giving any importance to consumer credit, bank managers have, by and large, developed cold feet to this important aspect of the banks' operations.

Does Consumer Credit deserve this step-motherly treatment? It may, therefore, be pertinent to look at the problem from a different angle. The present policy of making advances only to the priority sectors ignoring the importance of consumer credit is fraught with serious consequences which are likely to effect adversely the very growth and development of the priority sector itself.

Basis of Production

Consumption is not only the end but also the basis of production. Hence the importance of developing an expanding market for the products of the priority sector. Both in rural and urban areas the market for industrial goods is found to be very small at present as a result of low purchasing power. To expand the market for their products in spite of the low purchasing power of the people, some imaginative firms are offering 'incentives' to the buyers. Obviously they do not face any difficulty in marketing their products. Similarly private commercial firms are also doing good business by providing the facility of instalment-purchase-scheme to the consumers. But the 'coverage of consumers' by them is small as they mostly operate in big urban areas and that too under heavy financial limitations. They are also not able to meet the needs of 'consumer preference'. Despite these limitations the success of such firms only points to the fact that there is also a considerable scope for tapping the internal market for the products of the priority sector industries. It would, however, be difficult for them to further marketing of their products if consumption is not suitably supported by bank credit.

There is a good lot of 'pent-up demand' in our country for the new industrial products, which needs to be converted into 'effective demand'. Most consumers, particularly the middle class people, possess a keen desire to consume new industrial products like modern domestic appliances. However, these 'potential consumers' cannot always afford to make cash purchases. The end result is the poor turn-over of the firms producing these goods.

Inflationary Trends

It may be argued that extension of credit facilities on a large scale to the consumers to buy such products would accentuate inflationary trends and any further 'created demand' for these goods would certainly push up the already high prices. But it is only a lopsided thinking. 'A big margin of profit on small sales' being the present operative policy of most firms, which coupled with the 'time-lag' between production and marketing of the goods and other stringent financial conditions, compels them to fix the prices of their products at higher level. A fall in prices of these new products can, therefore, be confidently hoped for with an increased 'intake' by the market. The industrial firms would then adopt a policy of 'small margin of profit on large sales'. A good example of this trend is already noticed in the case of transistors. There has been a 25 per cent fall in prices of certain varieties of transistors and radios in the past three years. The marked fall in prices of transistors is, by and large, due to increased sales. This trend can very well be achieved in other industries too provided the public sector banks take steps to create and expanded market for new products by providing credit facilities to consumers. Therefore, easily acceptable Consumer-Credit-Instalment-Scheme deserves top priority in the lending operations of the nationalised banks.

This new service by the banks would certainly lead to a great increase in the number of their 'constituents', and foster the banking-habit among the consumers to a great extent, and start paying good dividends to the nationalised banks after a few years. By providing financial assistance to the consumer, banks can also reduce the pressure for credit by the industrial

firms. As days pass on it would become necessary to extend consumer credit facilities for the purchase of agricultural produce such as paddy, *dal* etc., in order to absorb the increased production in agriculture as a result of the green revolution.

In the absence of consumer credit the whole exercise of 'credit diversification' by the nationalised banks is likely to fail, sooner or latter, due to market limitations. It is necessary that the State Bank of India should take a lead by opening, 'Consumer Credit Cells' in all its branches. Similar action is also called for on the part of other public sector banks. A healthy competition in this sphere of lending operations will go a long way in increasing the tempo of economic activities in the country.

Banks should not rest content with the assumption that their ultimate responsibility is only to 'create optimum production' in the economy. They should also consider it as an equally important task 'to create optimum consumption' in the country and fill up the void caused by lack of purchasing power. Consumer credit will generate more productive and viable employment. It would impart a 'sense of participation' to the various sections of the community which have so long been outside the pale of banking.

Credit Cells

By creating 'Consumer Credit Cells' and increasing the staff, public sector banks could render a great service to the consumer and the economy. 'Consumer Preference' and 'Consumer's sovereignity' which are the determining factors of the market mechanism will assert their full force in the economy as a result of the banks' consumer credit service.

If the banks were to be reluctant to expand their lending operations in this area the government should think in terms of creating a 'Consumer Credit Corporation' which would specialise in this line and also provide financial assistance to the private commercial firms operating hire-purchase schemes of consumer goods. It is also desirable to fix the target in respect of consumer credit as it has been done in respect of the priority sectors. This is essential to create an expanding internal market for the increased production.

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A TRUSTEE AND COMPANION IN PROGRESS

LIFE INSURANCE IS 'A SUCCESS STORY'

The life insurance industry founded and run by Indians completed one hundred years on December 3 last year. The first Indian Company—the Bombay Mutual—was formed in 1870 to insure Indian lives without any special limitations or disabilities. In 1956, the life insurance industry was nationalised with the establishment of the Life Insurance Corporation. The nationalised life insurance industry has been playing a vital role in the transformation of the country's economy—mopping up savings from the millions for their future welfare and investing it into productive channels.

Pratima Ghosh

YOUR welfare is my responsibility' —this motto inscribed on the symbol of 'two hands protecting the flame of life' amply sums up the dynamic role played by life insurance in the lives of millions of Indian. At present, the Life Insurance Corporation (L.I.C.) is paying off a thousand claims per day on death or maturity. Against a thousand departures, there are five times more entrants. Since its inception as a nationalised undertaking, the Life Insurance Corporation has paid off Rs 600 crore by way of claims. Its new yearly business within the country has shot up to Rs. 1,025.80 crore under 13,96.593 policies as against Rs. 277 crore in 1957.

A glance at the latest report of the LIC reveals that at home and abroad during the year 1969-70, 14,72,529 proposals were received for assurances amounting to Rs 1,090.17 crore and 14,01,254 policies were issued assuring Rs 1,036.08 crore. The corresponding figures for the previous year were 15,23,585 proposals for Rs 980.15 crore and 14,54,298 policies assuring Rs 929.35 crore. The average sum Rs 5,110 in 1965-66 to Rs 7,394 in 1969-70. There was considerable expansion in the number of new offices—from 281 in 1957 to 699 at the end of March, 1970. The number of trained development officers has increased to 7,838 building up a dynamic sales and service machinery, while 1.5 lakh agents, in addition, are engaged in bringing the service of insurance to the very door-step of the people.

During the last 14 years, life business in force in India registered a remarkable growth. As against Rs 1,128 crore of business in force in India covering 45.16 lakh policies at the end of 1955 and Rs 2,176 crore under 74.56 lakh policies at the end of 1960, the life business shot up to Rs 6,303 crore covering 139.39 lakh policies in 1969-70. The total income from insurance business went up from Rs 66.48 crore in 1957 to Rs 260.41 crore in 1969-70, while the life insurance fund at the end of at the year stood at Rs 1,611.04 crore at against Rs 1,434.47 crore during the previous The profits from the General Insurance Business on the other hand were Rs 290.28 crore in 1969-70 as against Rs 135.30 crore during the previous year.

Table I tells the story of the expansion of the insurance industry in the past 14 years.

In the perspective of the growth of national income during the years of planning, this growth of life insurance industry acquires a wider significance.

Table 2 shows the comparative growth of net national product with growth of life insurance in force.

With the growth and expansion of life insurance, the rural areas have also come to benefit from it. In 1969-70 around 4,61,468 policies, constituting one-third of the total number of policies issued in India were taken out by rural people, the amount assured being Rs 251.76 crore or one-fourth of the total new sums assured within the country. This, however, does not exhaust the immense possibilities of business expansion in rural areas. Rather, in the wake of green revolution and the widespread changes in these areas, more and more people are becoming savings-conscious and as such there is further scope for mobilising rural savings through life insurance.

The LIC's dynamic role in the nation's economy can be assessed from its diversified and multilateral participation in economic development. It has not only mobilised the surplus purchasing power from the pockets of the prodigal consumers and acted as his trustee for his future welfare, bringing in turn a salutary effect on the continuously rising price level, it has also rechannelised the funds into productive investment, thus stimulating the country's economic growth.

During 1969-70, the LIC invested Rs 233.97 crore in private sector industries as wide-ranging as co-operative housing societies, railways, mining, shipping and transport, managing agents, insurance, banks, investment trusts, vegetable oils, food, drink and tobacco, plantations, coal, rubber products, jute, mineral oil, textiles, sugar and breweries, dyes, chemicals and pharmaceuticals, paper and boards, aluminium, electrical goods, cement, iron and steel, electricity, and engineering.

The Corporation is lending a helping hand in building up a suitable infrastructure. Large resources are being earmarked for rural electrification. For this, a massive amount of Rs 133.46 crore was made available to the State Electricity Boards during 1969-70. Thus, LIC is not only protecting life but also bringing light to rural homes. For providing protected water supply and underground drainage, the corporation has granted loans amounting Rs 24.94 crore to the municipal and government water supply schemes during 1969-70. Over 27 per cent of the urban population is covered by the scheme which will later be extended to cover rural areas.

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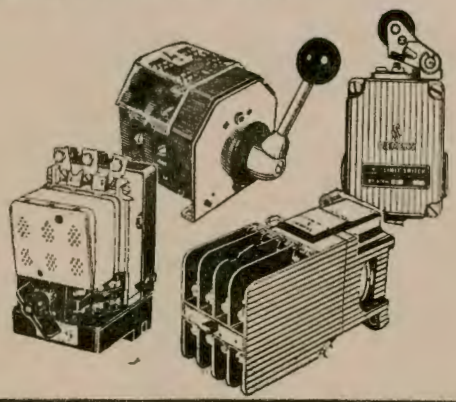
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TABLE I—Growth of Life Insurance in India

(Rs in crore)

	New Business	Business in force	Total Premium income
1957 . .	277·67	1,374	66·48
1958 . .	339·06	1,584	73·63
1959 . .	419·70	1,855	84·93
1960 . .	487·84	2,176	97·55
1961 . .	598·79	2,623	112·94
1962-63 (15 months)	734·72	3,051	151·05
1963-64 .	692·55	3,458	146·73
1964-65 .	690·03	3,766	162·25
1965-66 .	789·29	4,282	179·76
1966-67 .	757·94	4,606	196·98
1967-68 .	835·40	5,116	213·01
1968-69 .	920·41	5,606	234·78
1969-70 .	1,025·80	6,303	260·41

TABLE II

Rs in crores

	Net national product current price	Index No.	Life Ins. in force	Index No.	Total Premium Income	Index No.
1950-51 .	9,530	100	744·7	100	37·7	100
1955-56 .	9,980	105	1,122·7	151	53	141
1960-61	13,308	140	2,176	292	91·9	244
1965-66 .	20,586	216	4,282	575	173·6	460
1966-67 .	23,647	248	4,606	618	189·7	503
1967-68 .	27,922	293	5,116	687	206·1	547
1968-69 .	28,061	294	5,606	753	226·7	601
1969-70 .	30,306	318	6,303	846	252·3	669

Housing

Under its 'Own Your Home' scheme, the LIC is helping millions of people to build their homes. The huge investment in this scheme amounts to over Rs 258 crore. It has also committed Rs 100 crore to different housing boards for their house-building activities during the Fourth plan. In April, this year the scheme for providing houses was further extended to help the people affected by earthquake at Broach in Gujarat, and Kancheepuram in Tamil Nadu.

Institutionwise, the flow of assistance in this field amounting to Rs 63.57 crore during 1969-70, can be accounted for as follows—The biggest chunk of Rs. 59.97 crore goes to cooperative housing finance societies. Loans to State governments for financing co-operative housing come next with a total of Rs 3.29 crore. Thus co-operative housing has received a big fillip with a total financial support from LIC of the order of Rs 63.26 crore. The remaining 30.40 lakh rupees were allotted to the housing boards. The loans advanced to State Governments were utilised mainly for middle income housing scheme, the rental housing scheme, the villages housing projects, the low income group housing scheme, the plantation labour housing scheme and the land acquisition and development scheme.

Other specific schemes of the LIC for bringing a better life for the millions include the salary savings scheme in industrial areas making insurance premium the first item on the budget of the wage-earners and deductible in easy monthly instalments. The superannuation schemes and the group schemes for industrial houses are also likely to prove quite beneficial.

New Schemes

The LIC plans to extend further the range of its activities. With a view to improving people's health, it proposes to start a pilot scheme of health insurance for the policy-holders on payment of an extra-premium. To begin with, a large hospital is proposed to be set up in Bombay, which would also undertake essential researches in mortality.

Another new scheme is to build model townships all over the country. A beginning in this direction is made with the proposed 4,000-flat LIC centenary township at Borivli near Bombay. During the next three years 50,000 new homes will be built under the 'Own Your home' scheme. In the agricultural sector, the Corporation proposes to finance storages to be built by the agricultural departments.

The Corporation's subscription to the public borrowing programme will be Rs 1,505 crore during the Fourth Plan.

In spite of its vast and diversified participation in different fields of development as 'companion in progress', the Corporation's coverage is still very modest, taking into account the fact that out of a population of 54 crore only over 75 lakhs are insured. This works out a ratio of 1.5 per cent as against over 80 per cent in developed countries.

Appropriately, however, the Corporation has recently decided to remove all extra premia on occupational hazards imposed on the socially weaker sections of the community. Under the new scheme, people engaged in conservancy work or those employed in useful works like tailoring will not be required to pay an extra premium any more.



SMALL FARMERS DEVELOPMENT AGENCY

New Schemes for Agricultural Extension and Rural Employment

Out of four lakh cultivating families in Purnea in Bihar, a lakh are small farmers, holding between 2.5 to 5 acres of land.

The Small Farmers Development Agency helps such families to maximise output with inputs tailored to their specific needs. The Agency has been operating in Purnea as a pilo project since 1969.

These pictures tell the tory of 50,000 small farner families of Purnea who ıave been brought under he purview of the Agency.



Subsidiary occupations to fill free time and raise incomes: The Bihar Industries Department provided the loans to buy these buffalces. *Above*: Given the input that meets his specific need, the small farmer is as productive as his big brother in agriculture. Medium term loans to buy these bullocks—their primary source of power, came from the District Central Cooperative Bank.

OVER 50 lakh people in the rural areas are expected to get employment under several programmes most of which have already been initiated and are being extended on a top priority basis.

An outlay of Rs 67.5 crore has been provided in the Central sector of the Fourth Plan for setting up Small Farmers' Development Agencies in forty-six selected districts all over the country. Of these 42 have already been approved. Each of the agency, getting Rs 1.5 crore under the scheme, will generate three to four times



more money from the institutional sources (cooperative and commercial banks). It will identify viable small farmers holding from 2.5 to 7.5 acres, formulate production programmes for them, and help them with adequate and timely inputs. Twentyfive per cent of the assistance on production programmes will be subsidy and 75 per cent in the form of loan.

Marginal Farmers

Under another scheme Rs 47.5 crore have been provided to set up similar agencies for marginal farmers

The State Bank of India has come to the area, and these farmers come to the Bank for their needs. *Below:* A small hand-operated tube-well helps the farmer to grow vegetables, to grow into viability and greater independence.



and agricultural labourers in forty selected districts in various States. Generating supplemental occupations through animal husbandry, vegetable growing and similar occupations, the scheme will benefit about 10 lakh families. One third of the production expenditure will be paid as subsidy and the remainder as loan. Of the forty projects, twenty-two have already been approved, covering most of the States and the selection of areas in the rest will be finalised very shortly.

To generate large-scale employment in the chronically drought affected areas of the country a provision of Rs 100 crore has been made for launching rural works programme.

For this purpose labour intensive schemes for irrigation both medium and minor, soil conservation, afforestation and rural communication, will be undertaken in 53 selected villages and will help 25 lakh people. These schemes will be so integrated with the on-going Plan schemes in these districts as to create long-term infrastructure assets in the areas. The entire expenditure is hundred per cent grant to the States except with regard to soil conservation measures in the fields of private cultivators where 25 per cent is subsidy and 75 per cent is loan, repayable in easy instalments.

Rural Employment

A crash programme for rural employment, similar to the rural works programme, is also being undertaken. Costing Rs 50 crore, it will concentrate on providing roads, drainage and embankment works which can be completed within two working seasons. The programme, entirely subsidised by the Centre, is expected to benefit over four lakh people, providing employment to about a thousand persons in each district.

Another scheme for establishing 5,000 agro-service centres, is being initiated for the mechanisation of agriculture and for providing employment to engineering graduates and diploma-holders. The Agro-Industries Corporations which have already been set up in every State, will give preference to young engineers in the hire-purchase of mechanised agricultural equipment, reduction in the initial deposit money from the prevalent level of 20 per cent, State assistance in obtaining loans from commercial banks, training facilities and in possible employment as agents of the Corporations in rural areas where they have no workshops at present.

When fully implemented, the scheme will provide employment opportunities for about 50,000 engineers and diploma-holders and, in addition, to an equal number of non-technical persons. Small and medium farmers cultivating about 140 million acres, will also benefit from the scheme which will help them modernise their farming operations and step up their production.

ATTENTION READERS

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UPHOLDING THE RIGHTS OF MAN

Collective Action in 1971 to Combat Racism and Racial Discrimination

JOSE ROLZ-BENNETT

WHEN the Conference of San Francisco met in the spring of 1945 to draw up the Charter of the United Nations, there was a strong public demand for broad guarantees of human rights but in fact little effort had been made to reach a common understanding as to the scope of those rights or the means by which their enjoyment might be ensured. Observers from a number of non-governmental organisations convinced governmental representatives of the need to elaborate on the original human rights provisions of the Dumbarton Oaks proposals, urging in particular that the proposed Economic and Social Council should be authorised to consider matters relating to human rights, that a Commission on Human Rights be established, and that at least some minimum agreement on the scope of the rights and freedoms to be protected should be incorporated in the Charter pending the preparation of a full and adequate International Bill of Rights.

As adopted, the Charter expresses the determination of the peoples of the United Nations "to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small". It sets out, as one of the purposes of the Organisation, "to achieve international cooperation in promoting and encouraging respect for human rights and fundamental freedoms for all without distinction as to race, sex, language or religion". The Charter relates this purpose to the functions and powers of the General Assembly and of the Economic and Social Council, and lists it among the basic objectives of the International Trusteeship System. The Economic and Social Council, empowered to make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms, is authorised to "set up commissions in economic and social fields and for the promotion of human rights".

Bill of Human Rights

The Commission on Human Rights, composed originally of experts representing eighteen countries under the Chairmanship of Mrs Eleanor Roosevelt, began its work in January 1947, and immediately plunged into the task of preparing an International Bill of Human Rights. Some members of the Commission felt that the Bill should take the form of a proclamation or manifesto; others favoured an international convention. As a compromise it was decided that the Bill should have three parts : a Declaration proclaiming general principles, a "Covenant or Covenants" embodying those principles in a form which would become binding on States which ratified them, and "measures of implementation" establishing the international machinery necessary to ensure the application of the Covenants.

So effectively did the Commission perform the first part of its task that the General Assembly was able, less than two years later, on December 10, 1948 to adopt and proclaim the Universal Declaration of Human Rights. In this unique document—hailed as one of the most significant accomplishments of the United Nations—the meaning of "human rights and fundamental freedoms" is spelled out in terms which all may accept and understand. More important, the Declaration vests a responsibility for the promotion and protection of those rights and freedoms in the international

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Seeks and Deserves
Equal Justice
Equal Opportunity
and Equal Dignity
Without Discrimination



community as a whole, and deals with the individual not only as a citizen of a given State but as a human being and also as a citizen of the world.

Since 1948, the Declaration has become "a standard of achievement for all nations and all peoples". The date of its adoption December 10, has been proclaimed as "Human Rights Day" and is celebrated every year around the earth. The national constitutions of many countries, drafted since 1948 have taken their human rights provisions from it.

The preparation of the Covenants on Human Rights was a far more difficult task, as it was necessary not only to define each right and freedom in terms which were *legally precise and universally acceptable,* but also to agree upon some arrangements for dealing, on the international level, with complaints that certain rights or freedoms were not fully recognised of enjoyed in this or that country or territory. The Commission started on this job in 1947, but it was only in 1954 that it was able to submit preliminary texts to the General Assembly and only in 1966 that the Assembly could adopt the Covenants and open them for signature and ratification or accession.

The completion of the Covenants undoubtedly was hastened by the successful preparation and approval, in 1965, of the International Convention on the Elimination of All Forms of Racial Discrimination, to which the General Assembly accorded "absolute priority". The Convention provides *inter alia* for the establishment of the first United Nations body especially set up to deal with allegations that human rights are being violated in independent countries and territories. This body, the Committee on the Elimination of Racial Discrimination, is composed of experts of acknowledged impartiality and is authorised not only to consider reports from States Parties on the legislative, judicial, administrative and other measures which they have adopted and that give effect to the provisions of the Convention, but also to deal with allegations which may be brought by one State Party to the effect that another State Party is not giving effect to the provisions of the Convention. Further, the Committee may, in certain circumstances, and upon special acceptance of one of the Convention's provisions by the State concerned, deal with communications received from individuals, or groups of individuals, within the jurisdiction of a State Party, claiming to be victims of a violation by that Party of any of the rights set forth in the Convention. The Convention came into force in 1969, and the Committee on the Elimination of Racial Discrimination began its work early in 1970.

From the Preamble to the Universal Declaration on Human Rights

. . . Recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.

. . . Disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people.

. . . It is essential if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law.

Less than a year after the General Assembly had completed the Racial Discrimination Convention it was able to adopt, and open for signature and ratification, the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, and the Optional Protocol to the Covenant on Civil and Political Rights. The Covenants provide international protection for a far ranging catalogue of human rights and freedoms, and will be legally binding on those countries which ratify them. They will come into force when 35 States have become Parties.

Civil and Political Rights

The International Covenant on Civil and Political Rights contains implementation measures along the lines of those which appear in the International Convention on the Elimination of All Forms of Racial Discrimination. States Parties to the Covenant will elect an 18 member Human Rights Committee, which will consider reports submitted by the States Parties and may address general comments to those States as well as to the Economic and Social Council. The Committee may also consider communications from State Party alleging that another State Party is not fulfilling its obligations under the Covenant, but only in accordance with optional provisions which will come into force when 10 States Parties have accepted them. The Committee may also consider, under the Optional Protocol, which will also come into force only after acceptance by 10 States Parties, communications from private individuals claiming to be the victims of a violation by a State Party to that Protocol of any of the rights set forth in the Covenant. The reports of the Committee are to be communicated to the States concerned; the Committee will also report to the General Assembly each year.

The adoption of the Covenants and of the Optional Protocol marked the completion of one of the most complex and difficult tasks undertaken by organs of the United Nations in its 25 year history. Its main significance was that the general references to human rights which had been inserted in the Charter, and which had been proclaimed as principles in the Universal Declaration of Human Rights, had at last been made the subject-matter of legally binding obligations in international treaties. The adoption of both Covenants in the General Assembly by a unanimous vote of those participating is a significant element.

This was not, however, by any means the only tangible achievement of the United Nations in the field of human rights in that period of two and one-half decades. The International Bill of Human Rights was supplemented by a whole series of international instruments designed to promote and protect the enjoyment of various rights and freedoms.

Equality of Opportunity

First, the right of peoples and nations to self-determination, clearly affirmed in the Charter, is reaffirmed with vigour in the Declaration on the Granting of Independence to Colonial Countries and Peoples, adopted by the General Assembly in its resolution of December 14, 1960, which empha-

sises the necessity of bringing colonialism in all its forms and manifestations to a speedy and unconditional end in order to ensure to all peoples their inalienable right to complete freedom, to the exercise of their sovereignty, and to the integrity of their national territory; and which sets out a series of measures designed to end the subjection of peoples to alien domination and exploitation.

Secondly, the International Convention on the Elimination of All Forms of Racial Discrimination, referred to above, is now buttressed by a whole series of international instruments designed to ensure recognition and enjoyment, in fact as well as in law, of the principle of equality and non-discrimination. As early as 1951 the General Conference of the International Labour Organisation adopted the first international Convention implementing this principle, Convention Concerning Equal Remuneration for Men and Women Workers for Work of Equal Value. In 1958 the ILO General Conference prepared the Discrimination (Employment and Occupation) Convention, by which States Parties undertake to declare and pursue a national policy designed to promote equality of opportunity and treatment in respect of employment and occupation, with a view to eliminating any discrimination in respect thereof. Two years later the General Conference of UNESCO adopted the Convention Against Discrimination in Education, by which States Parties undertake to formulate, develop and apply a national policy which will tend to promote equality of opportunity and of treatment in the matter of education. The two latter Conventions were adopted following initiatives originating in organs of the United Nations.

Another important instrument in this field, and indeed the forerunner of the International Convention on the Elimination of All Forms of Racial Discrimination, is the United Nations Declaration on the Elimination of All Forms of Racial Discrimination, which the General Assembly of the United Nations adopted unanimously on November 20, 1963. This Declaration, like the Convention which followed two years later, deals with one particular type of discrimination, that based on race, colour or ethnic origin. It characterises such discrimination as an offence to human dignity, and condemns it as a denial of the principles of the Charter, as a violation of the human rights and fundamental freedoms proclaimed in the Universal Declaration of Human Rights, as an obstacle to friendly and peaceful relations among nations, and as a fact capable of disturbing peace and security among peoples; and solemnly affirms the necessity of speedily eliminating such discrimination throughout the world, in all the forms and manifestations, and of securing understanding of and respect for the dignity of the human person.

Right to Life

With reference to the first and most important of all human rights, the right to life, the General Assembly adopted, on December 9, 1948, the Convention on the Prevention and Punishment of the Crime of Genocide, which established a new crime in International law; the destruction of a human group—national, ethnical, racial or religious—as such, either by killing members of the group, by causing serious bodily or mental harm to them, by deliberately inflicting upon them conditions of life calculated to bring about the physical destruction of the group in whole or in part, by imposing methods intended to prevent births within the group, or by forcibly transferring children of the group to another group. In accordance with the provisions of the Convention, States Parties undertake to prevent and to punish this odious crime.

Human rights are not granted: they are asserted by individuals who are aware of them.

—Edvard Hambro, President of the U. N. General Assembly.

With reference to freedom from slavery or any other form of servitude, the United Nations in 1953 assumed the duties and functions which had been vested in the League of Nations under the Slavery Convention signed at Geneva on September 25, 1926. Three years later, in 1956, a Conference of Plenipotentiaries prepared and opened for signature and ratification the Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices similar to Slavery, extending the prohibition of crude slavery and of the slave trade to a number of similar institutions and practices, including debt bondage, serfdom, the purchase or inheritance of women, and the exploitation of young persons or of their labour. Under the Convention, States Parties undertake to cooperate with each other and with the United Nations to bring an end to slavery, the slave trade and all similar institutions and practices.

With regard to a more subtle form of servitude—prostitution and the accompanying evil of traffic in persons for the purpose of prostitution—the United Nations in 1949 consolidated a number of instruments designed to suppress the traffic in women and children, and approved the Convention for the Suppression of the Traffic in Persons and of the Exploitation of the Prostitution of Others.

With reference to forced labour, also a form of servitude, in which the Government *de facto* is the master and its citizens the slaves, the General Conference of the International Labour Organisation adopted in 1957 the Abolition of Forced Labour Convention, under which each ratifying State pledges to take effective measures to secure the immediate complete abolition of forced and compulsory labour, and not to make use of any form of forced labour either (a) as a means of political coercion or education or as a punishment for holding or expressing political views or views ideologically opposed to the established political, social or economic system (b) as method of mobilising and using labour for purposes of economic development, (c) as means of labour discipline, (d) as a punishment for having participated in strikes, or (e) as means of racial, social national or religious discrimination.

Problems of Nationality

With regard to problems of nationality, statelessness and refugees, the United Nations has completed four international Conventions : the Convention on the Nationality of Married Women, opened for signature and ratification by the General Assembl

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on January 29, 1957; the Convention on the Reduction of Statelessness, adopted on August 30, 1961 by a Conference of Plenipotentiaries convened by the General Assembly; the Convention Relating to the Status of Stateless Persons, adopted on September 28, 1954 by a Conference of Plenipotentiaries convened by the Economic and Social Council; and the Convention relating to the Status of Refugees, adopted on July 28, 1951 by a Conference of Plenipotentiaries convened by the General Assembly. In addition, it has prepared and adopted the Statute establishing the Office of the United Nations High Commissioner for Refugees, adopted by the General Assembly on December 14, 1950. By virtue of this Statute the United Nations High Commissioner for Refugees provides international assistance, under auspices of the United Nations, to specified categories of refugees, and endeavours to find permanent solutions for the problem of refugees.

With regard to the rights of women, several important instruments have been prepared. The Convention on the Political Rights of Women, opened for signature and ratification by the General Assembly in 1952, implements the principle of equality of rights for men and women contained in the Charter by ensuring that women residing in Contracting States are entitled to vote in all elections, are eligible for election to all publicly-elected bodies, and are entitled to hold public office and to exercise all public functions, on equal terms with men, without any discrimination. The Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages opened for signature and ratification by the General Assembly on November 7, 1962, provides for measures with a view to abolishing certain customs, ancient laws and practices relating to marriage and the family which are considered to be inconsistent with the human rights principles set out in the Charter and the Universal Declaration of Human Rights. States Parties undertake to ensure complete freedom in the choice of a spouse, to eliminate completely child marriages and the betrothal of young girls before the age of puberty, to establish appropriate penalties where necessary to end these evils, and to establish a civil or other register in which all marriages will be recorded.

Down with Apartheid

The policies of apartheid, *especially in territories still under a colonial regime, grossly offened the conscience of mankind and impair the life of large sections of the human race. They must be eliminated for the benefit of mankind. In the wider perspective of the coming decade, which we have solemnly dedicated to devlopment and disarmament, each of us should be determined to contribute his share to the attainment of the United Nations objectives of peace, justice and progress. For these objectives hold the promise that all human beings may ultimately enjoy all the rights proclaimed in the Universal Declaration of Human Rights.*

—U Thant

Other Human Rights Conventions completed by the United Nations or the specialised agencies during the 25 year period include the Convention on the International Rights of Correction, opened for signature by the General Assembly on December 16, 1952; the Convention on the Non-Applicability of Statutory Limitations to War Crimes and Crimes Against Humanity, adopted by the General Assembly on November 26, 1968; the Freedom of Association and Protection of the Right to Organise Convention, adopted by the International Labour Conference on July 9, 1948; the Right to Organise and Collective Bargaining Convention, adopted by the ILO General Conference on July 1, 1949; and the Convention concerning Employment Policy adopted by the ILO General Conference on July 9, 1964.

Rights of the Child

Among the major statements of Principle promulgated during this period were the Declaration on the Rights of the Child, proclaimed by the United Nations General Assembly on November 20, 1959; the Declaration and Understanding Between Peoples, proclaimed by the General Assembly on December 7, 1965; and the Declaration of the Principles of International Cultural Co-operation, proclaimed by the General Conference of UNESCO on December 4, 1966.

Thus it may be seen that the task of building a world-wide system of law and of insuring the protection of human rights and fundamental freedoms—a vast and complicated undertaking—has progressed rapidly and significantly. But this task is far from being finished, even at the 25 year mark. And—far more important—the monumental job of making a reality of the principles which have been proclaimed by giving full effect to the international agreements which have been concluded is only at its beginning.

The responsibilities concerning the human rights activities of the United Nations have been borne principally by the General Assembly, the Economic and Social Council, the Commission on Human Rights and its Sub-Commission on Prevention of Discrimination and Protection of Minorities, and the Commission on the Status of Women. The endeavours of these organs have received approval from time to time by action taken in the Security Council on matters where human rights were at stake—the situations in South Africa, Southern Rhodesia, and the Portuguese Territories in Africa, for example—and by the continuing activities of the Trusteeship council, the Special Committee of 24 and the Council for Namibia, which have proposed a number of substantive measures aimed at the promotion of human rights and the elimination of racial discrimination in Non-Self-Governing and Trust Territories.

Denial Persists

By these endeavours, the United Nations in 25 years has succeeded in making peoples everywhere conscious of their human rights and fundamental freedoms. It has encouraged, nationally and internationally, the re-

cognition and protection of those rights and freedoms. It has adopted precise standards in this field, against which domestic legislation and practices can be reviewed and measured. It has established a comprehensive network of international machinery, designed on the one hand to guarantee and ensure the enjoyment of human rights generally, and on the other to implement international agreements for the solution of particular problems.

This progress, while encouraging, is still far from adequate to meet the need. Many practices denying human rights persist and are matters of grave concern to the international community. They are widespread, and the resources available to deal with them are still too limited to the magnitude of the task.

It is understandable, and indeed imperative, that the major efforts of the United Nations and of its affiliated bodies should, at this critical period, be directed mainly against racial discrimination, including and against institutions and practices—such a slavery and other forms of servitude —which deprive men and women of their freedom and destroy their human dignity. This positive drive to achieve the maximum freedom and dignity for each individual is to be emphasised in 1971, which the General Assembly has designated as the International Year to Combat Racism and Racial Discrimination.

But it would not be correct to assume that full recognition and enjoyment of human rights and fundamental freedoms can be attained through international consideration and recommendation alone.

In the final analysis, as Mrs Roosevelt once pointed out, all human rights begin "in small places, close to home—so close and so small that they cannot be seen on any map of the world. Yet they are the world of the individual person; the neighbourhood he lives in the school or college he attends; the factory, farm or office where he works. Such are the places where every man, woman and child seeks equal justice, equal opportunity, equal dignity without discrimination. Unless these rights have meaning there, they have no meaning anywhere. Without concerted citizen action to uphold them close to home, we shall look in vain for progress in the larger world".

Bright Prospects for Tractor Industry

A. K. NANDI

AGRICULTURAL methods are changing at a fast rate in our country. The use of tractors has increased considerably during the past decade—from a mere 3,877 in 1961-62 to about 20,000 in 1969-70. This includes domestic production as well as imports.

The production of tractors in the country began in 1960-61. Earlier the demand, totalling over 4,000 tractors per year, was met through imports. But now the major part of the demand is met through domestic production. There are at present five manufacturers in the private sector producing tractors of various sizes ranging from 25 H.P. to 50 H.P. All these manufacturers have a collaborator each from abroad. This is because the designing and manufacturing of tractors needs specialised knowledge and technical know-how.

A target of 129 million tonnes of foodgrains production has been fixed for 1973-74. This calls for intensive farming with bettter seeds, fertilisers and increased mechanisation. Agricultural tractors and other machinery and implements have a very important role to play in this process. Therefore the demand for agricultural tractors is on the increase. According to the Planning Commission Group on Agricultural Machinery, the demand for them during the Fourth Plan period will be as follows :—

Year	Demand for Agricultural Tractors in nos.
1969-70	36,000
1970-71	42,000
1971-72	49,000
1972-73	58,000
1973-74	68,000
TOTAL (Fourth Plan)	2,53,000

SOURCE: Handbook of Statistics (IEA-1968-69)

Of the total estimated demand for 68,000 agricultural tractors in 1973-74, 21,000 will be in the range of 12-20 H.P., 38,000 in the range 21-35 H.P. and the remaining 9,000 tractors above 35 H.P.

Tractors form an essential component of mechanisation in agriculture. The future prospects of this industry are quite bright as the demand is increasing at a fast rate. Therefore new capacities have to be created either by having net units or by expanding the existing ones. In order to meet the demand for agricultural tractors below 20 H. P. range, which seem to be more suited to Indian farms, the Government proposes to establish a public sector project at Ramnagar in U.P. for the manufacture of 12,000 tractors annually. For this purpose a sum of Rs 5 crore has been allotted in the Fourth Plan. There is a vast scope for the private sector also in this field. Increased capacities, both in the public and the private sectors, will also lead to the development of more ancillary industries and more employment opportunities to the people.

INDIA WINS SILVER MEDAL IN STAMP EXHIBITION

India has won a silver medal for its Philatelic exhibits in the London International Stamp Exhibition 1970, in September last.

This philatelic expo in which, India participated for the first time, is the largest international stamp exhibition held anywhere.

The Indian exhibits included old collections from the National Philatelic Museum, New Delhi, which included Scinde Dawks' early essays, proofs and lithographs of 1854, East India postage stamps and general issues. A rare sheet of a ten-rupee Indian service stamp on Mahatma Gandhi attracted large crowds.

Growth with Distributive Justice Alone can Lead Society

FROM STATIC STABILITY TO CREATIVE INSTABILITY

S. L. PARMAR

IN a fundamental sense, the central goal of development may be called 'self-development'. Up to a point this would correspond to the concept of self-sustaining growth of self-reliance. But these are essentially economic concepts. Self-reliance means the ability of a country to maintain a desired rate of growth through its own resources. Its savings should suffice to meet its investment needs. A part of such savings is converted into exports to fetch enough foreign exchange to finance current imports and debt obligations. Hence such a condition indicates a freedom from foreign loans or grants.

Self-reliance does not mean self-sufficiency. Trade and investment continue to have significant roles in development. But through them the economy should be helped to acquire sufficient productive power and savings capacity to meet its international obligations. Obviously a high rate of growth in national and *per capita* incomes is essential for achieving the goal of self-reliance.

But self-development does not mean only a high rate of growth. It also implies a more equitable distribution of resources and economic power, and new relationships between social groups, so that development of one does not depend upon or lead to deprivation of the other. A high rate of growth could go with exploitation of the many by the few, as was the experience of today's industrial nations in their predevelopment period. Not only was there a pauperisation of the proletariat within the country—England, France, Germany, even the USA—by a handful of owners of means of production, but there was also an extension of such exploitation to other nations in the form of colonialism. While developing nations have neither the possibility nor the inclination, and certainly not the power to embark on colonialism to sustain their economic progress, they can, and sometimes, do, pursue exploitative policies domestically and have a fair rate of growth. In some erstwhile colonies, it is being said that we have exchanged foreign imperialism for 'domestic imperialism'. A few of these nations have even shown better economic performance than many other developing nations. Clearly, such a situation could not be described as 'self-development.' Social justice reflected in greater equality of opportunity, a more egalitarian social order, a diffusion of economic and political power from the few to the many is the most important element of self-development.

The central goal of development can be interpreted as consisting of three interrelated objectives : economic growth, self-reliance and social justice. It is submitted that primacy should be accorded to social justice not simply on ethical grounds but in order to ensure a high rate of growth over time and steady progression toward self-reliance. This would be different from the generally prevalent approach in which the rate of growth is singled out as the most important goal of development.

Economic growth, by which is meant a steady rise in the standard of living, is vital for developing countries, Pressure of population, massive poverty, rising expectations, the fact that political consciousness has preceded economic ability to meet aspirations, etc., make rapid economic growth an imperative and the rate of growth itself is more important than the fact of growth.

There are, however, a number of problems with this approach. First, it reduces development to a purely economic phenomenon. Second, it assumes that injection of sufficient resources like capital, technique, and so on will by itself bring about development. This is too much of a *laissez-faire* approach in relation to the situation in developing countries. Resources can give results only if adequate institutions are set up for utilising them. If all this is to be done quickly, it calls for radical structural changes.

Third, it presents a yardstick for measuring development that dooms most developing countries to permanent poverty. According to certain projections, in the year 2000, India—even if it achieves a 5 per cent annual rate of growth—will be poorer in comparison to developed nations than it is today.

Each developing nation is really competing with itself. Its present performance should be an improvement upon its earlier performance. In the process, if it comes nearer to developed nations, well and good, but even if it seems to lag behind, that should not be taken as lack of achievement. We have, therefore, to evolve a concept of development which will give us a sense of equality and dignity even with relative poverty.

Fourth, one finds that in many countries of the third world a satisfactory rate of growth has not contributed to the stability and well-being of the nation. That shows that people are seeking something more than statistical evidences of progress.

As one looks at the contemporary scene in the third world, it seems that political problems have assumed greater importance than the economic. After three five-year plans, India has made only marginal dents in her massive poverty. Unemployment, rising prices, debt obligation, deficits in balance of payments and demographic burdens continue to plague the economy. If con-

certed efforts are necessary to deal with these problems the need for economic planning is greater, not less.

The upheavels witnessed in Pakistan in mid-1969 show that it is in a similar predicament. During the sixties Pakistan had a higher rate of growth than most Asian countries, excepting Taiwan and South Korea. Similarly Nigeria, Kenya, Indonesia, Malaysia, Brazil, to mention a few other developing countries, provide instances of fair rates of growth and instability going together. It is not intended to suggest that lack of social justice is the only cause of upheavals in many developing nations. There are a variety of causes. But if one goes to the root of the matter, it would be seen that many of these struggles even though they take ethnic, tribal, cultural and linguistic forms constitute a part of the quest for equality and human dignity.

The most important component of social justice is a just distribution of the national product, that is, distributive justice. It is often argued that pursuit of welfare and distributive justice will slow down the rate of growth. Welfare measures in the field of health and sanitation have brought down the death rate sharply in most developing countries. Even with a constant or slightly reduced birth rate, population is increasing at a much faster rate than before, necessitating larger demographic investments. A substantial portion of the increased national product is diverted to the maintenance of additions to population and cannot, therefore, be used for productive investment that would accelerate the rate of growth. Welfare almost becomes a brake on development.

This may appear to be so from a narrow point of view. But if we take a nation's long-term interest, as we should, an improvement in the health of the people improves the quality and productivity of human resources. It also subscribes to the tenets of social justice by providing facilities to the lower income group. This is sometimes described as a shift of income from the traditionally saving group to the traditionally non-saving group. As such it slows down the rate of capital formation and consequently the rate of growth. From this, it is argued that policies of distributive justice should be postponed till such time as self-sustaining growth has been achieved. This argument has many flaws.

To begin with it operates with a static concept of saving and non-saving groups. Thus, if investment efforts of the so-called saving groups were really effective the problem of production should have been solved by now, and we should have been in a position to introduce a better distribution of national income. That it is not so shows that the savings efforts of the traditionally saving class are inadequate. This approach also ignores the role of government in mobilising savings through taxation, consumption regulation, public borrowing and deficit financing. In developing countries it is not possible to meet the investment requirements demanded by a high rate of growth through voluntary savings; therefore, forced savings become essential for our economies.

The experience of developed nations provides a helpful parallel at this point. In the early stages of their development, savings were not voluntarily coming forth through the free play of market forces, although this is a cherished myth. Savings were forced from the economy. Some of it was squeezed from the working class and the peasantry in the form of surplus value. One may disagree with the theoretical ramifications of Marx's theory of surplus value, but he was right in showing that the owners of means of production built up their savings by exploiting labour. Forced saving thus became a common feature in the pre-development experience of today's industrial nations, and the present experience of developing nations. But there the similarity ends. Developed nations forced savings from those who had less capacity to save; the policy of distributive justice suggested for developing countries would force savings from those who have greatest ability to save and, in the process, build up the saving potential of the less privileged groups.

Growth Vs Distribution

Two phrases are often heard when the 'growth versus distribution' bogey is raised. One is, 'you cannot distribute poverty' and the other, 'production first then distribution'. If these were valid the primacy of social justice as a goal of development could not be maintained. It sounds plausible to say that poverty cannot be distributed. But a nation can certainly distribute what it has. If that happens to be poverty, one must begin with that.

Such an argument clouds the real issue. It is not poverty which is to be distributed but riches which exist within an overall situation of poverty. The process of welfare and distributive justice takes from those who have more and will continue to have more relative to others even after such deductions.

In most of the developing countries we find islands of affluence surrounded by unrelieved poverty. This is a result of existing patterns of distribution of economic and political power. At the end of three five-year plans economic inequalities have increased in India. A vicious circle of this kind can be broken only by more equitable distribution. Otherwise, even when the few rich continue to grow richer, they can still say : 'you cannot distribute poverty', because the nation as a whole will be poor.

Distributive justice is important from the point of view of efficient use of resources. We all recognise that underfed people cannot work efficiently, hence they are unable to make full contribution to social production but the same holds true for overfed people. Both conditions are unhealthy and weaken productive capacity. The economy as a whole should function more efficiently if the overfed have less and the underfed more and both are restored to health. And yet we have the strange spectacle of economic policies that favour the better-off sections more in the name of 'incentives,' and neglect or even deprive the weaker sections in the name of 'sacrifices necessary for development'.

The slogan 'production first then distribution' is a clever smokescreen for perpetuating social injustice and

power of the possessing classes. If these groups resist redistribution of resources today, does it not stand to reason that when production has increased they will resist redistribution even more? It is also not clear at which level of production we begin to say that now we have enough to start redistributing. As already mentioned, most developing nations will be relatively poorer in comparison to developed nations by the year 2000. It would then be said that we must postpone distributive justice till we have produced enough to narrow the gap between rich and poor countries.

There would, however, be some justification for leaving resources in the control of better-off sections in developing countries, if these groups followed austerity measures to maximise savings and invested resources according to national priorities. But, their behaviour so far has been rather different. Generally they indulge in conspicuous consumption, which is a waste of resources in economies of scarcity. An unfortunate consequence of this is that it distorts consumption in general, and tempts the low-income groups to follow suit. In traditional economies one of the problems is the high propensity for social consumption on ceremonies, festivals and the like. This is evident from the present pattern of consumption in Indian villages. Increased agricultural production and rise in incomes have caused a spurt in wasteful consumption, thus reducing resources for new investments. Theoretically one could make out a case for no ceiling on incomes, provided it was assisting the process of capital formation. If this does not happen in practice, one could still allow high incomes, but ensure savings by imposing curbs on consumption. That would, in effect, become a way of redistributing the real resources of the country.

From the experience of developed nations it is proved that welfare policies contribute to increased production and ensure better balance between different sectors of the economy. Price support policies, agricultural subsidies, unemployment insurance are examples. These illustrate a process of more equitable distribution of resources by taking from those with ability for the sake of those with need. Welfare is not a leakage of national resources but a contributor to productive capacity.

The Disinherited

When we talk of incentives we are usually thinking of special encouragement to the owners of capital, and entrepreneurial and organisational ability. What about landless labourers, small farmers and the working class? They are vital parts of the productive process, but it is seldom that their interests determine incentives. Similarly, we operate with a highly nonegalitarian notion of property. All wealth is created by the cooperation of capital and labour, and property is part of this wealth. But the right of inheritance vests only in the descendants of one partner in production, namely capital, without recognising the right of the other.

The thrust of these arguments is to show that a high rate of growth which alone can lead to self-reliance is dependent on distributive justice. Today, in all parts of the world, not only in developing countries, there is a revolt of the disinherited. Unless society gives them their due the productive process will be constantly disrupted. Pursuit of policies based on social justice is the only way to overcome the dissatisfaction of the masses and ensure their full support of development programmes. It needs to be pointed out that this view of social justice as the overarching goal of development is different from the "Welfare State" approach. The concept of social justice is not based on enlightened self-interest of the dominant groups, but on the basic right of all people to equality and human dignity.

It is believed, and rightly, that development will lead to stability and conditions of lasting peace. But many have distorted this idea and interpreted it to mean that only stability can ensure development. By stability they mean an undisturbed continuance of present political, economic and social structures. But it is precisely this kind of stability that is change-resisting, hence, development-denying. Development cannot take place without radical changes in economic and social relationships, and diffusion of political power. Such changes are accompanied by instability, disorder, upheaval. We completely misunderstand the process of development if we equate it with static stability.

One Structural Approach

Thus understood, development is revolution. Revolution means a radical change in the values and structures of society. It is neither a state of perennial anarchy nor necessarily a call to violence. Non-violent revolution is a new phenomenon in human history and I believe that it represents the wave of the future. The objective of revolution is to acquire power in order to establish institutions and policies that will lead to certain social goals. The anti-institutional kind of revolution is as self-contradictory as the stability kind of development. If revolution is for gaining power and using power, how can it operate without organisation and institutions? One can be against this or that kind of 'establishment' but one has to be for some kind of 'establishment.' A purely anti-institutional view of revolution is *laissez-fairist* and reactionary. It assumes that tearing down existing structures will of itself bring about progress. How is this different from the classical idea of the 'invisible hand?'

A revolutionary approach has to be a structuralist approach—first tearing down then building up. It is true that one cannot make an omelette without breaking eggs. But it is equally true that one can break an egg and not necessarily have an omelette. Some other ingredients and a minimum of culinary skill are necessary for converting the egg into a more delicious dish.

Revolution is goal-directed; it is not an end in itself. And development is both an adjunct of and goal of revolution. Where a development versus revolution debate is carried on it is due to a misunderstanding of both. The two should be seen as mutually sustaining. Together they lead society from static stability to creative instability.

(Reprinted extracts from CERES, the F.A.O. Review)


A family you have planned
is a family you can provide for
Tell me brother, how can you live so well while I can hardly make both ends meet?
I have fewer mouths to feed—only two children
Two? My wife has a baby every year! what can I do?
Do what I do—use NIRODH
The power to prevent birth is in your hands. Use it.
USE NIRODH FOR FAMILY PLANNING
15 paise for 3 • 5 paise for 1
Price kept low through Government Subsidy
AVAILABLE AT PRESENT IN SOME DISTRICTS ONLY

Fourth Plan Eludes Justice with Social Growth

B. SATYANARAYAN

IN India, we have chosen the democratic type of planning in the context of a mixed economy, calling for a compromise between "growth" and "welfare" objectives. Hence, the rate of growth cannot be, *prima facie*, as high as we find in a fully planned economy, such as in the Soviet Union. We have a vast population and equally widespread unemployment. The land-man ratio is very low. The capital equipment as well as its accumulation is low. The technical progress is not very high. A major chunk of the population is either at the subsistence or semi-subsistence wage level. All these factors go against Indian planner's wishes in making the path of economic development a smoother one. It cannot adopt the Russian type of technology or planning techniques wholesale in mechanising either its agricultural processes or industrial activities, insofar as the production of consumer goods is concerned. It has to choose and innovate an altogether different type of techniques. Above all, the general wage level in India is relatively very much lower than it was in Soviet Union. And yet the overall framework of our planning is still based on the Russian model, which is in turn based on the Mahalanobian Growth Model.

All planning should lead to a high standard of living whether in terms of cultural goods or physical comforts or wasteful luxuries. It requires a technological base to produce in required quantities for a large and increasing population at full-employment. Thus, capital accumulation in the key industries which produce mechanised equipment for manufacturing consumption goods is a basic element of the affluent society. To obtain this high degree of capital per man for the future, it is found that a high degree of restraint upon non-essential consumption per man employed is of utmost importance.

The attitude of modern development economists towards the consumption levels is related to the existence of non-employment and disparities among individuals. During the process of development some industries come to possess a highly-organised labour movement while other industries do not have strong trade unions. The degree of organisation is a function of the nature of the industry as regards its concentration in a few places and the easy availability of substitute labour. Whenever the trade union action succeeds in increasing the money wages up to the level of the rise of prices, the further rise of prices decreases the real wage back to the previous level, and the only effect is that one has moved the economy one step higher in the ladder of the wage-price spiral. Further, the effect of these rising prices would be felt by the unorganised section of workers, since the bargaining power of these people would be relatively weak to get necessary redressal. Thus, one finds that the trade union action has little effect upon decreasing the disparity between workers and entrepreneurs in organised industries, but only increases the disparities between the organised and unorganised sections of workers.

All these actions might lead to a rise in the standard of living of the workers in the organised sector, along with the general price rise. Under these circumstances, the real cost of labour to the private as well as public undertakings rises, thereby the surplus for investment tends to get reduced below the level, compared to the one, if the rise in real-wage were not to take place. Thus, the rate of growth of both investment and employment would be slowed down. The particular effect would be mostly felt by an even less-fortunate section of the public than the workers in unorganised industries; namely the non-employed workers whose expectancy to become employed in the near future is reduced by this action. Thus, the base of the labour movement gets shifted from its original purpose of egalitarianism to an increase in disparities among the three tiers of workers (the organised and the unorganised, among the employed and the non-employed).

The remedy for this situation is to change the strategy of trade union activity. Instead of demanding a wage-rise, which would be entirely for their own benefit, they should ask for the equivalent benefit in a different form. They might be justified in demanding a higher wage either to compensate for a rise of prices or to ask for a higher share of wages out of the total income of the industry, or to take the benefit of increased productivity. Instead of asking for more wages, they should ask for a lump-sum benefit equivalent to the capitalised value of the contemplated increase in wage payments. The benefits may be given in the form of issue of bonus shares of the concerned enterprise. It is hereby suggested that one-third of these shares may be given over to the trade union of that particular industry for the common benefit of all its members; another one-third to a central trade union. The recurring income that would be accruing to this central organisation may be invested in expanding the trade union movement in unorganised industry and other constructive activities.

Workers' Trust

The remaining one-third of bonus shares may be invested in an organisation, like workers' investment trust, which should be set up under an act of Parliament. The ownership would be a collective one. The trust can be entirely managed by the representatives of workers and its main objective should be to expand investment in all spheres of essential activities. There should be no declaration of dividend. By expanding its investment, it should try to bring out the non-employed population out of the cockpit of poverty, as early as possible. The Government need not levy any direct taxes on this trust, and it may be given priority in the issue of licenses and other facilities.

In course of time, the Trust would gain an increasing share of ownership of wealth and property in the country and would gradually bring about the structure of production in the mixed economy nearer the state called "Propdem," which is short for Property Owning Democracy, describing an

egalitarian society where there will be no differentiation between management class and workers as the firms would be owned by the workers themselves whose wages would more or less be uniform.

Upto this time, India has followed the strategy of manufacturing luxury consumer goods, such as crockery sets transistors, tape-recorders, cameras, water heaters, pressure cookers, electric ovens, dunlopillo cushions, refrigerators, and air-conditioners in the name of "incentive goods" to a number of classes, like technicians invited from abroad, business-executives and the elite. It is justified on other grounds, like import-substitution, demand being high for these goods, etc. Under these circumstances, there seems to be no escape from the proposition that economic development requires the readiness to refrain from the luxury consumption by which one would be able to effect the transfer of investments from the equipment for manufacturing the luxury consumer goods to the equipment for manufacturing of investment goods. This is what the community as a whole has to achieve, and the burden of achieving it must fall upon that part of the employed population which is above the standard of necessaries in their occupations and upon the higher consumption group among the entrepreneurs. If there is a deviation from this policy, the burden shifts to the non-employed and lower-consumption groups.

Since there is no provision in Indian planning for any of the abovementioned factors, one would be left with no other conclusion than that the twin objectives of "Growth and Social Justice" are not being properly and adequately looked after. Even the Fourth Five Year Plan also makes no specific provision for any of these cherished goals, except in theory.

INDONESIA IMPORTS INDIAN ENGINEERING GOODS

Indonesian imports of Indian engineering goods have steadily increased during the last three years. From 374 million Indonesian rupiahs in 1967-68, the value of imports from India rose to 468 million rupiahs in 1968-69 and to 868 million rupiahs in 1969-70.

Engineering goods constituted 42 per cent of India's total exports to Indonesia during 1969-70.

A NATIONAL STRATEGY FOR RURAL HEALTH

For the first time, the problem of rural health is to be tackled in its widest prespective

A master plan is being evolved to build up a suitable infrastructure in order to provide integrated services for health and medical care, family planning and maternity and child health service for the entire country. This will remove the present imbalance of health services between the urban and rural areas.

Under the plan, primary health centres (PHC) supported by a chain of sub-centres would be set up in rural areas. Each primary health centre would cover 80,000 to 1,00,000 persons while the sub-centres would serve a population of up to 10,000. This complex is proposed to be linked with rural hospitals, having at least 25 beds and three specialist doctors proficient in surgery, obstetrics and gynaecology.

To begin with, the Master Plan would identify areas with over one lakh or more of population but without hospital facilities. There are about 2,200 such areas, inhabited mostly by tribals and other backward sections. These areas will be marked in red on the map. These will be marked in green when the hospitals and other health facilities are provided there.

It is necessary to link the infrastructure of primary health centres with hospitals to which the patient could be referred for treatment. Recognising this need, the Master Plan seeks to provide a minimal structure of static and mobile hospitals where in addition to medical care adequate follow-up services for the acceptors of family planning and their families would be provided. The hospital unit will be so located that one can take a patient to the hospital and return home to attend to other business of life the following morning.

With a doctor-population ratio as low as 1 : 50,000 in some of these rural areas, which generate nearly 70 per cent of the gross national product of the country, rural health is not only important but urgent. Therefore, a multi-purpose scheme of the mobile training-*cum*-service hospitals to be run by medical colleges, has been launched. Twentyone such units will be on the move in the next few months. If the experiment succeeds, the scheme will be extended to involve all the 95 medical colleges. During the second phase of the scheme, approximately 3,000 post-graduates available every year will be given in-service training in these mobile units for one or two months by turn. This will incidentally provide specialist consultancy service to areas covered by the primary health centres and dispensaries. This scheme should be able to provide employment to a large number of medical graduates and post-graduates.

There is still a great scope for voluntary effort which must be encouraged to put up miniature hospitals in villages and small towns. It is proposed to extend grants-in-aid to the extent of one-third by the Central Government and one-third by the State Governments so that the voluntary agency has to spend the remaining one-third on expanding these facilities.

In addition to institutional support, health care on a nation-wide scale calls for other field operations like periodically organised State-financed special camps like eye camps, dental camps, and sterilisation camps for the rural people. Some States have already gone ahead with these operations. For this purpose voluntary services of experts can also be obtained.

The health services can only be effective when these are supplemented by educational effort to make people conscious of environmental hygiene so that they can take full and better advantage of facilities created for them

Inadequacies of High Yielding Varieties Programme in 1968-69 Rabi Season

Supply of Inputs and Demonstration Need Improvement

THE High Yielding Varieties Programme launched in the agricultural year 1966-67 has paved the way for achieving a breakthrough in food production. Because of the importance of the programme, the Programme Evaluation Organisation, at the instance of the Planning Commission, initiated an appraisal of the programme from the Kharif season of 1967. Continuing this exercise, PEO has completed its study for the Rabi 1968-69. The main observations made by it on the basis of a study carried out in 32 development blocks and 96 sample villages are given here.

Inadequate and untimely irrigation in Rajasthan, stoppage of canal water supply, frequent power failures during the crucial months in Bihar, delayed irrigation in Orissa, and non-adherence to irrigation schedules in Mysore, were some of the problems which affected the cultivation of high-yielding varieties of wheat, paddy and jowar during the Rabi season 1968-69.

The 210-page report suggests that the planning authorities at the State level should devote greater attention to the problems of irrigation, especially advance assessment of availability of irrigation water during the Rabi season, timely intimation to farmers, and assessment of the potential created under the minor irrigation works. The report points out that lack of proper coordination between the agriculture departments, on the one hand, and the irrigation and hydel departments, on the other, has adversly affected agricultural programmes in Uttar Pradesh, Rajasthan and Orissa. It adds : "There seems to be urgent need to lay down proper working arrangements for achieving effective coordination between such key departments, right from the State level, down to the village."

The report confirms an earlier observation that new varieties of seeds, such as IR-8 and TN-1 paddy and CSH-I and CSH-II jowar, fared much better during Rabi than in the Kharif season.

In Rabi 1968-69, a few new Rabi paddy varieties, namely Jaya, Padma, Hamsa and CR-28-25, had been released for trials in Tamil Nadu, Andhra Pradesh and Orissa. A new jowar variety, Swarna, was also given trial. S-227 and S-308 had become the most popular wheat varieties in all the wheat-growing States practically replacing the pure Mexican varieties introduced earlier.

Research

The Programme Evaluation Organisation's studies have underlined the need to equip agricultural research stations in the country with modern equipments like greenrooms, quality testing instruments, electronic microscopes and computers. At the same time, it is necessary to post technical staff, such as plant pathologists, entomologists, etc., at these stations. There is also the need for accelerating the feedback process from field to the research stations, in the light of experiences gained in cultivation processes under different conditions.

In many areas where the Organisation conducted its study, the soil testing programme was found to be weak and thinly spread out. There was no appreciable increase in the number of soil samples sent for testing, results of sampling received back, and the number of participants reporting for soil tests. The PEO study calls for more vigorous measures to intensify soil testing programmes to obtain more meaningful results and to help individual farmers.

Demonstrations

According to the PEO report, demonstrations are the most important extension method, even more significant with the prospect of newer varieties of seeds being released in the coming seasons.

The detailed training programmes envisaged at different levels in the initial year of the Programme have become more or less a routine affair. This was also true of training camps held at different levels during the year. The Centrally-sponsored training programme was being initiated and strengthened in some of the Southern States. But no such institutional training was being thought of in most of the other States, especially the wheat-growing States. The Organisation recommends a more systematic and effective training programme.

The Organisation is also of the view that a coordinated and unified effort in mass communication is also necessary. At present, a number of agencies are carrying out a number of audio-visual publicity campaigns according to their own priorities. This effort has, however, to be coordinated at the district and lower levels. Field experience had shown that the existing facilities had not been put to effective use, mainly due to the lack of up-to-date films, cinema projector operators, and other causes. The broadcasts of All India Radio had, however, proved to be a very effective medium.

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PERCOLATION TANKS A BOON TO SCARCITY HIT KUTCH

M. P. DAIYA

For long, the villages in the Kutch district of Gujarat were affected by repeated droughts. Not now. Over 169 percolation tanks, constructed recently in the district have brought smiles to the dry fields. Following is the story of Kokalia, one of the villages, witnessing significant change after owning a percolation tank.



A progressive farmer of Kokalia, amidst the blooming cornfields. Irrigation by the percolation tanks have brought an end to the sufferings of the peasants like him.

PERCOLATION tanks, constructed as part of scarcity works, have proved to be a boon to the people in Kutch, the border district of Gujarat. The farmers of Kokalia, a hamlet with a population of barely 550 in Mandvi taluka, have testified to the 'immense' benefit they derived as a result of a percolation tank constructed near the village. On being interviewed, Natubha Sangaji Jadeja, Sarpanch of the village, said: "One has only to imagine what joy it was for five villages in the belt of this percolation tank to see crops grow up to their full measure in our fields where not a blade of grass grew for two years. Today, pumps work round the clock in our farms and I am not exaggerating when I say that we shall be earning the maximum possible profit from our produce."

Natubha was almost in tears when he narrated his experience of the past two years of famine in Kutch. "These years were totally dry", he said, "I did not get a single paisa from my 32 hectares of land. Only 50 of my 300 goats and sheep and 20 out of 35 cattle survived. The village also lost about 150 of its 400 cattle."

Adhubha Tejpal, a small farmer, owning 8 hectares of cultivable land corroborated this tale of woe. "We even sold our ornaments to salvage our crops," he said, describing how agriculture had become a difficult proposition during this period of trial.

It was a pleasure to see the living monument which human endeavour had constructed in the shape of the percolation tank at Kokalia. A vast sheet of water could be found at a place where even drinking water was hard to get. Water ran almost 6 metre deep in an area of 2.59 square kms. Villagers had done 11.58 metres of earthwork to construct an embankment to prevent rain water running out into the sea which was only 11 km. away. The villagers were so enthusiastic that immediately after the first showers in the area they volunteered free labour to conserve every drop of water that had collected in the tank.

The storage capacity created at the site can provide irrigation three to four times over a minimum of 120 hectares of land. This will benefit about 2,100 maunds of crops which will fetch an income of more than Rs. 35,000 to the villagers.

Kokalia has one of the 169 percolation tanks which have been completed out of a total 197 undertaken as scarcity works in Kutch district. A characteristic feature of such works is that they involve less expenditure, running into a few thousand, as against minor irrigation works costing lakhs of rupees. They help to bring the level of water up in the village wells, enrich the sub-soil layer and help the afforestation process. One percolation tank creates a potential for a minimum of 20 villages in the area under its command.

To Our Contributors

Articles which are not accepted for publication in Yojana will be returned only if they are accompanied by self-addressed stamped envelopes.

Unsolicited articles will not be acknowledged.

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

LAND TO THE LANDLESS IN GUJARAT

B. N. Tripathi

IN Gujarat with the operation of the law to abolish the interests of intermediaries, as many as nine lakh 'bona fide' tillers have acquired occupancy rights either without an occupancy price or with only nominal occupancy prices. The passing of the Devasthan Tenure Abolition Act, the last in the series of agrarian laws, completes the process of elimination of intermediary interests in the State. Under the provisions of the Land to the Tiller Act more than seven lakh tenants have already become the owners of their land with effect from April 1, 1957.

To plug the loopholes, if any, in implementing the tenancy act, major amendments to the Act were made in 1965 providing extension of time-limit for payment of instalments. Besides, 40,000 farmers who could not, under duress of the landlords, appear before the Agricultural Commission, or had otherwise forfeited their rights by refusing to purchase the land, were offered another opportunity to make such purchases. Yet another loophole to get the land released from the tenant by entering into a new agreement, under the return of the land to the holders for self-tilling purposes in 1965, was also removed.

To avoid delay in timely payment of the price to the landlords, the Government extended credit facilities to the tenants and saved them from forefeiting their rights.

Owing to this amicable and strict enforcement of land reforms, the 'Land Grab' movement did not gain any support in Gujarat.

The Land Ceiling Act, framed in 1961, was also satisfactorily implemented in the State. Out of 20,250 hectares of cultivable land declared as surplus under the Act, 14,175 hectares were taken by the Government. Of this 72,150 hectares have already been distributed on priority basis among the farmers. The question of the remaining 6,075 hectares of land which could not be taken possession of due to court injunctions, was likely to be settled by the end of next July.

So far as the problem of Pardi Grass lands was concerned and which drew country-wide attention, landlords themselves came forward and voluntarily gave away more than 32,400 hectares for distribution among landless Adivasis, besides contributing to the fund collected for tilling the land.

The State Government has since 1960 disposed of more than 2.025 lakh hectares of waste land among about 85,000 Adivasis and Harijans in the State. The remaining 60,750 hectares are expected to be disposed of by April next. These wastelands are given without auction to Adivasis, Harijans, and the backward and middle classes at concessional rates. Thus over 30 lakh sq. yards of land have been given to the Adivasis and Harijans at concessional rates for house building purposes.

To solve employment among the landless agriculturists a co-ordinated programme for establishing industries in the heavily populated areas has been initiated. Accordingly, an industrial estate has been set up at Vapi, where the landless Adivasis of Bulsar have been provided with employment.

SILVER JUBILEE OF LIBRARY MOVEMENT IN KERALA

KERALA has more than 3,700 public libraries, all affiliated to the Kerala Granthasala Sangham, which celebrates its Silver Jubilee towards the end of December. Nearly six per cent of the literate sections of the people of the State use these libraries. Two thousand of them are housed in their own buildings, big and small. The Sangham has among its affiliates the Kerala University Library as well as the Government Public Library at Trivandrum.

Kerala's population is 207 lakh and nearly 6.2 lakh of these are library members. Libraries under the Sangham have a total collection of 67 lakh books valued at Rs 1.2 crore. These libraries lend nearly 1,50,00,000 books a year. On an average, every village in the State has two libraries. This works out to nearly one public library for every 3,000 of the population. Nearly 75,000 people give their services free to these libraries on a voluntary basis.

Each of these libraries functions under a freely elected committee, the office-bearers of which are purely honorary. These local libraries are coordinated at the Taluk level by a Library Union, which in turn is governed at the apex by the State level Sangham and its governing body.

The Sangham gets Rs one lakh every year from the State Government as grant. This amount is distributed among affiliating libraries according to their classification. Any public library with a stock of 10,000 books and an annual lending of 15,000 titles is eligible for financial assistance up to Rs 1,200. At the other end of the scale, a small library which adds a minimum of 750 books to its collection a year will get Rs 180 from the Sangham.

Nearly 2,500 libraries in Kerala cater to the needs of special groups like neo-literates, women and children. Many of them also have extensions for cultural activities, sports and adult education programmes. The year 1970 was observed as Library Year in the State.

Started in 1945 with only 47 libraries, the Kerala Granthasala Sangham is today India's largest and most popular library movement.

Integrated Agricultural Extension In Maharashtra

Avinash Godbole

Our Bombay Correspondent

AFTER 20 years of planned development, it was realised that the small farmer in the State owing less than two hectares of land could not benefit adequately from the numerous development programmes introduced in the agricultural sector. Therefore in May 1965, the State Government put into operation an Integrated Area Development Scheme which was designed to help the small farmer not only financially and technically in increasing his yield but also to secure for him additional employment during the lean period of about 200 days a year. Popularly known as Page Scheme, after the name of Mr V. S. Page, Chairman of the State Legislative Council, who conceived it, the main purpose of the scheme is to make the small landholder family an economically viable unit.

The first pilot project was started in 11 villages in Tasgaon block in Sangli District. Encouraged by its success it was, in April 1968, extended to the entire Tasgaon Panchayat Samiti area. In 1966-67 all the 90 villages in the four blocks of Karad, Sangmeshwar, Pusad and Kaij were brought under the scheme. During 1969-70 six more blocks were added into the periscope of the scheme. The ultimate aim is to extend the scheme to all the 25 districts of the State with the scheme covering one Panchayat Samiti area in each district by the end of the Fourth Plan. The anticipated expenditure is of the order of Rs 25 crore.

The actual implementation of the scheme has now been transferred to Zila Parishads so as to enable them to take active part in regard to their respective districts.

Under the scheme, agricultural programmes like land improvement, and mechanical cultivation with a central service station, joint use of agricultural implements, minor irrigation works, digging and repairing of wells, intensive cultivation in accordance with package practices and horticulture are taken up in an integrated manner.

The animal husbandry programme includes establishment of small dairy units on loan-*cum*-subsidy basis with marketing facilities, supply of good breed of buffaloes and cows and necessary veterenary aid. The programme also includes establishment of sheep and goat units and small poultry units on the same basis.

Under the scheme loans are given to farmers who are not able to obtain the same from usual sources under normal schemes. Additional assistance is provided to reinforce the other schemes in operation so as to help the beneficiaries reap maximum benefits from these schemes. Supplementary subsidies are also provided for practically all land development and irrigation schemes so that the quantum of repayment is reduced, making it possible for the small landholders to participate in and get benefits from those schemes. In the case of irrigation programmes, the capital expenditure is fully met from the block funds and the beneficiary is required to pay charges only to cover the expenditure of taking water to his fields.

For setting up dairy units, the quantum of subsidy is one-third, the loan being the remaining two-thirds. For poultry and sheep breeding 50 per cent subsidy and 50 per cent loans are sanctioned. Seeds, fertilisers and horticultural needs are met with 50 per cent subsidy.

Though a quantitative assessment of the benefits obtained by small holders is yet to be made, an idea of its usefulness can be had from the fact that soil conservation works have been undertaken in 10,590 villages with a total expenditure of Rs 22.70 lakh. In all, 110 lift irrigation works have been undertaken so far. 75 poultry units have been established and 5,337 milch cattle have been distributed to the agriculturists.

A programme of digging 313 community wells was undertaken in the scheme area in 1965 and was extended all over the State. The total amount spent on this programme upto 1968 was about Rs one crore. This programme is now restricted to block areas, with Rs 5 lakh allotted for this purpose in 1968-69. On the basis of reports received from all the Panchayat Samiti areas, a total of 260 community wells have been dug so far.

From the preliminary surveys made in the areas covered under this Scheme, some visible improvements in various aspects of agricultural activity can be noticed, as compared with conditions in previous years. Measures such as contour bunding, reclamation of land, tractor ploughing, eradication of weeds, toning up of land are being undertaken by the participants on a larger scale as compared with the non-participants.

In regard to the use of irrigation facilities, it can be observed that the proportion of area irrigated holdings to the cultivated holdings recorded a substantial increase over the previous years as against practically no change in the case of non-participants. In the sphere of intensive cultivation and the use of inputs too, the participants seem to have an edge over the non-participants.

Employment

An Employment Guarantee Scheme was launched in each village of the original five IAD blocks in 1969 to ensure employment to agricultural labour mainly.

The guarantee under this scheme is restricted to provision of only unskilled manual work to all able-bodied residents of the village. Municipal areas have been excluded from the scope of this scheme which is entirely voluntary.

Works like contour bunding, irrigation work, construction of roads, afforestation and development of pastures are undertaken under this scheme. The concerned village panchayat prepares advance plans with estimates of works which can be taken up for providing employment to all unemployed persons in that village.

Norwegian Government Fellowship 1971–72

Applications are invited from Indian Nationals and Subjects of Sikkim for the award of Norwegian Government Fellowships, 1971-72.

SUBJECTS OF STUDY/RESEARCH

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NUMBER OF FELLOWSHIPS

The offer is on a global basis and there is no specific quota for India.

DURATION

One to two years approximately depending on the nature of courses.

QUALIFICATIONS

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Minimum qualification required is Ph. D. in one of the above mentioned subjects with two years' research/training/teaching experience after obtaining the requisite qualification.

(b) For Advanced Study/Training

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(d) For Odentological After-Training, Periodnotics

Graduates/Masters from Dental Faculties with two years' teaching/practical/research experience in the line after acquiring the above qualifications.

(e) For International Ship Inspection

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AGE

International Ship Inspection Course candidates should be between 24 and 30 years of age on 1st September, 1971 and for other Courses between 25 and 40 years of age on 1st September, 1971.

VALUE

(a) Those who are Ph. D. and are accepted for post-doctoral research will be entitled to:—

(i) Stipend. Kr. 1,500 per month (Rs 1579/- Approx.)
(ii) Initial Allowance. Kr. 1,000 (Rs 1052/- Approx.)
(iii) Other Expenses Covered. Social Insurance fees.

(b) Those who hold a Master's degree and are accepted for advanced studies/training will be entitled to:

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Last date for receipt of complete applications is 28th December, 1970 and last date for supply of applications(blank) is 22nd December, 1970.

For each course a separate application will be required. One application giving order of preference for two or more courses will not be entertained.

For prescribed application forms and other particulars write enclosing an unstamped self-addressed cover (23 cm ×10 cm) for each course to the Ministry of Education and Youth Services, Government of India, Section ES-3, Shastri Bhavan, 5th Floor, 'B' Wing, Room No. 516, Dr. Rajendra Prasad Road, New Delhi-1.

The envelope should be superscribed "NORWEGIAN GOVERNMENT FELLOWSHIPS, 1971-72.

A Planning Forum Survey

AGRICULTURAL LABOURERS OF AMRELI

THOUGH in recent years, due to the various land reform measures undertaken by the Government, there has been a considerable change in the socio-economic structure of the village, the lot of the agricultural labourers, in general, remains the same. This is the conclusion reached by the Planning Forum of the K. K. Parekh Commerce College, Amreli, Gujarat.

The Forum made a random survey eight villages in the Amreli taluka Gujarat. Their findings show that the past ten years there has hardly :en any change in the total working)pulation. However, more agricultural labourers are employed in the ltivation of commercial crops than the case of non-commercial crops. fact in the case of the latter, the mber of agricultural labourers emoyed is constantly decreasing.

Though the Government has distriuted fallow land to 25 per cent of ıe labour families, nothing has been ne by these families to bring it der profitable cultivation. Perhaps is is due to the lack of capital.

Another striking fact brought out by the Survey is that as the income of the agricultural labourers improves their women folk tend to remain at home. The number of female labourers is thus more in the small income groups.

In the small income group where, the annual income per family ranges from Rs 500 to Rs 1,500, the average per capita income in "Govadaka", an otherwise rich village, was Rs 320 and in 'Vavadi', a poor village it was Rs 220. In the higher income group (Rs 1,500 to Rs 4,000 per annum per family) the average per capita income in a rich village "Vadera" was Rs 448 and in "Keria-Nagas", a poor village, Rs 272.

As regards their mode of expenditure, it was found that nearly two-thirds (70 to 75%) of their expenditure was incurred on food and 10 per cent on clothing. Considering their meagre incomes some of the families were also found to be spending a good amount on tea and cigarettes. Hardly two per cent of them saved anything.

Majority of the families were under debt. The average indebtedness amongst small income families came to Rs 966, and among high income group to Rs 1,313. As regards the purpose of the loan, it was chiefly taken for unproductive purposes. Though agriculture was the chief source of livelihood of the landless labourers, it was insufficient to support them. Majority of them supplemented their income from other sources. Seventy-five per cent of the families kept either cows or buffaloes and sold milk.

The condition of the mud-houses in which these poor labourers live is simply deplorable. Most of the houses are one-room tenements without any kitchen, bathroom or latrine or even proper ventilation facilities. Investment in house construction is hardly about Rs 500 per family.

Family planning programmes have not made much impact on this section as most of them regard children as inevitable. Since their children start earning very early in life, they are not regarded much of a liability.

LETTER

ECONOMICS OF D.A.

I endorse the view expressed in ıur editorial 'The Economics of .A.' (*Yojana*, of November 1), that nstead of feeding the all consuming :e of dearness with lumps of D.A. :utralisations, it would be worthhile to provide the fixed income oups, especially the lower income rackets, with subsidised transport, ousing and food supplies and full overage for educational expenditure". ut this presupposes efficient econoıic management. The experience of ıe much-publicised consumers' coperative stores, started to fight inflaon, has not been encouraging.

Two other ideas strike while ponering over this problem of rising rices. The first is to take up the djustment of basic pay every five ears and not on an *ad hoc* basis everytime a strike is organised. The higher wage bill would necessarily involve the laying off of surplus staff (due to better organisation, management and automation) and stoppage of fresh recruitment as an economy measure. Secondly, the cost of administration should not be permitted to devour the entire public revenue. In Madhya Pradesh, the total wage bill of government employees during 1969-70 was nearly 70 per cent of the revenue from the State's own sources.

A consolidated salary gives a better idea of the actual wage packet than the split-up between basic pay and dearness. At the present rate, a situation will arise—and it did in the case of textile workers—when the D.A. will exceed the basic wage. This tends to obliterate the distinction between a more efficient and a less efficient worker.

The question of Dearness Allowance now deserves a thorough examination in all its implications and a policy for the whole country has to be evolved. Dearness agitation must not be permitted to become a normal feature of the nation's economic life and damage the working of the administration and economy. Such terrible setbacks may hinder the progress of the nation.

Bhopal *P. C. Malhotra*



A PIONEER FARMER

KOTIL Sankarankutty Marar, now 60, has been a farmer for 34 years. Marar's farm is in Kannara, a village 16 kilometres north of Trichur in Kerala.

When as a young man he came to Kannara the place was a thick jungle infested with wild animals. So, he faced all the odds of a pioneer. He used to be up at dawn and go into the jungle armed with a bill-hook to clear the wilderness and a big stick to handle the cobras. As he cleared the land and started farming, wild boars and elephants proved to be a menace. He also had to fight malaria. And yet, he succeeded in coverting 80 of the 140 hectares of forest into rich farmland.

Marar started cultivating food crops, especially Paddy, his first love. Besides paddy, he grew 'Nendran' variety of banana, tapioca and a wide range of vegetables.

But as he gathered experience, he found that mixed farming was better suited to Kerala conditions. Now he grows quite a few cash crops like arecanut and coconut along with food crops. Then he has an orchard of mangoes and jackfruit. He has also a fine herd of cattle and has quite recently adopted the deep litter system of keeping poultry. He helped introduce the Key Village Scheme in Kannara. This has helped upgrade the cows and buffaloes in the area.

Marar thinks the success of farming lies in the amount of interest one takes in farming. He does not believe in intermediaries supervising farm operations. "The difference between profit and loss in farming lies in your readiness to be with the workers or not."

Nearly half the paddy produced in his farm is paid as wages to the labourers. When Kerala was in the grip of acute food shortage, the labourers on his farm always had two square meals a day.

Marar has organised a Young Farmers' Club. The club has been given 50 cents of land where different types of vegetables, which are used for the mid-day meals for the students are grown.

It is his ambition to upgrade t school into a high-school where chil ren can take up farming as an op tional subject.

Marar also intends to continue reclaiming the forest land. He wants to raise a coconut garden and plant choice varieties of mangoes and jackfruit. He intends to build a one-kilometre bund and plant it with arecanuts. His pioneering zeal keeps him going in quest of new opportunities.

—SHUKLA HAZRA

MOBILE SOIL TESTING LABORATORY FOR RAJASTHAN

A mobile soil testing laboratory h been made available to Rajasthan t the Central Government. Equippe with modern testing appliances th laboratory can test 100 samples a da It also has projection accessories fc showing agricultural films.

GROUNDNUT CULTIVATION IN RAJASTHAN

After the introduction of the inten sive groundnut cultivation programm in the Rajasthan canal area three year ago, groundnut cultivation has bee expanded from 167 hectares to 47 hectares. Another 2,000 hectares ar to be brought under groundnut culti vation during the year 1971-72.

BOOKS

Monetary Economics

A Course in Monetary Theory by D. M. Mithani. Published by Somaiya Publications (Pvt.) Ltd., Bombay. Pages 686. *Rs* 20.

R. C. Saxena

ONCE the process of development sets in, it must strive for an optimal size of the financial structure. This ort, at any moment of time, would, wever, depend upon the forces that ect the marginal cost and social nefit curves of finance. Among these ces, some may be those which lie ehind the long-term growth of primary securities, money and other ndirect financial assets. In any case, he ultimate choice, from amongst the vast range of available techniques of allocating resources for mobilising savings, would depend on the benefits and costs of each technique. In this context, therefore, some countries might concentrate on techniques other than finance because finance may prove to be of a too low-return quality. In other words, it may prove expensive in terms of skilled and educated labour which will have to be deployed for the operation of this technique as compared to the benefits derived from it. On the other hand, with a view to accelerating the growth of capital stock of the country, the technique of employing resources in finance can be a paying proposition to the point up to which its marginal productivity compensates its marginal cost. Additional resources in finance, which may be in the form of additional branches of banks, expansion of middleman activities in security market, expansion of the existing institutions and the quality of services offered etc., can be a paying proposition only if they induce such financial flows which help in earning a net profit for the financial system and the economy as a whole. The incremental financial flows may, however, result in more loans than are really conducive to economic development, *e.g.* loans for consumption and speculative purposes. In view of the position explained above, the public authorities, namely the Central Banking Institution, Ministry of Finance, the financial intermediaries like deposit banks, discount companies and other financial institutions pursue some monetary policy for regulating money phenomenon that encompasses the volume and prices of various financial assets and liabilities and the impact of changes in them on the general economic activity.

In view of what has been mentioned above in regard to the techniques of allocation of resources in finance, the book under review provides a wide range of information in respect of various problems arising out of different aspects of money. It has been divided into three parts. The first part spells out different theories of money and its role in the regulation of the economy along with the role of the banking system. The second part is devoted to the analysis of Keynesian economics and the third one to the analysis of trade cycles. The book provides valuable and interesting reading not because it offers new solutions to the problems arising from monetary analysis but for having incorporated in it the latest trends and concepts that have helped enriching the science of Monetary Economics. The outstanding feature of the book is that the author developes each topic with so much clarity and ease that macro aspects of the study do not get sacrificed in the process of development of fundamentals. The addition of numerous diagrams further helps to make the book easy of comprehension.

Monetisation In Kerala

Monetisation in Kerala by V. R. Pillai and P. G. K. Panikar. Department of Economics, Kerala University, Trivandrum. Pages 176. *Rs* 20.

S. M. Shah

The study sponsored by the Research Programmes Committee was confined to a sample of 360 households selected from 12 villages at the rate of 4 each from the talukas of Mukundapuram (district Trichur), Perinthabnanna (district Palghat) and Badagara (district Kozhikode). From each village 30 households were studied, the survey covering one full year from July 1962 to June 1963.

The average size of holdings was 3.75 acres. Dry land comprised 53.6 per cent and wet land 46.0 per cent. Paddy occupied 44.65 per cent and coconut 40.97 per cent of the total area operated. Intensity of cropping was high. Area leased was as high as 46 per cent. About 31 per cent of the working population was in agriculture, 19 per cent in manufacturing industries and 38 per cent in services, the most dominating sector.

Of all the cultivation expenses, 42 per cent were monetised. Cropwise, the highest level of monetisation was noticed in coconut cultivation where cash expenses comprised 58 per cent, the corresponding proportion in paddy being 39 per cent and for other crops 46 per cent. About 58 per cent of coconut output was sold, 38 per cent of paddy output and 46 per cent of output of other crops. Cash expenses as a proportion of total livestock maintenance cost worked out to 54 per cent for milch cattle, 33 per cent for draught cattle and 16 per cent for poultry. The proportion of milk output sold was more than 60 per cent, the corresponding poultry output sold being 42 per cent.

The proportion of cash expenditure to total consumption expenditure of the sample households worked out to 64 per cent. Occupation-wise the proportion of cash expenditure was highest, namely, 77 per cent, among agricultural labourers and the lowest, 58 per cent among cultivators. Of the gross receipts, 68 per cent were cash and 32 per cent non-cash. In the sample of 60 small industries units studied, the

proportion of cash expenditure was 60 per cent of the total.

Yes, a traditional subsistence agriculture can as well be highly monetised as is revealed in this study. A high level of monetisation should heighten the sensitivity and responsiveness to economic stimuli. Why then the region is poor—the average consumption expenditure per capita was Rs 277? Are investment opportunities low or unrevealed or do resources need to be re-allocated for optimum results? Processing industries need to be organised to make commercial agriculture pay better. Higher production potential levels could be achieved by intensifying the use of modern inputs such as fertilisers, pesticides, improved seeds and instituting a close network of farmers' organisations and rural institutions.

The present study is an analytical work based on empirical research. There are some printing errors which mar the reading. Ably conceived and competently analysed this study may well prove to be a forerunner of similar studies in other States. Data from selected households do not represent statistically the features of Kerala; nevertheless even as a type study of 12 Kerala villages the results are useful both to the research worker and to the policy-maker.

DEVELOPMENT AND LOCATION OF INDUSTRIES

Indian Industries—Development and Location by Dr. M. R. Chaudhuri. Published by Oxford and I.B.H. Publishing Company. Pages 230. *Rs.* 16.

A.K. Bhattacharyya

The book in its present edition has been revised and enlarged with the addition of three new chapters. In the preliminary chapters the author has discussed the significance and implications of Indian industrialisation, the associated problems and prospects, the Industrial Policy Resolutions of the Government of India and Planning of industries, the growth of industries over periods of time and the successive Five-Year Plans for industrial development. He has then discussed various factors deciding industrial locations. The determining factor of location of industries are availability of raw materials; of fuel and power; of skill and labour; of machinery and equipment goods; of financial facilities and of markets. The relative importance of these factors will vary according to the nature of industries.

The author has made a thorough and critical analysis of the various types of industries like metallurgical, engineering, chemical and allied, textile, food, cottage and small-scale. He has given the latest facts about the major large scale industries.

Industrial location and Regional Planning in India has been discussed and the author has tried to assert that steering of basic industries should be made from technical and economic considerations. Areas which have the best growth potential should be selected and regional dispersal of industries is to be aimed at for salvaging the depressed pockets where unemployment is chronic and persistent. The book presents an appraisal and exposition of the development and location of industries in India.

TO AUTHORS AND PUBLISHERS

Authors and publishers who desire their books to be reviewed in YOJANA are requested to send two copies of each publication to us.

Assimilating our Heritage

Indian Painting by C. Sivaramamurti. Published by the National Book Trust, New Delhi, Rs. 7.

Krishna Chaitanya

Culture does not cling to the soil and the most pitiful victims of the fallacy that it does are those who are always making the bellicose claim that the heritage of the land which had the doubtful distinction of giving birth to them is, or has to be, the greatest in the world. On the other hand, the legacy becomes real only in remembrance and assimilation, afresh by generation. Here what the French call *haute vulgarisation* can play a great role. After an initial phase of ambiguous performance, the National Book Trust has in recent years achieved a splendid breakthrough, especially with its series: "India—the Land and People." The book under review is a welcome new issue in the series.

Summative presentation, helpful clarity in narration and the elimination of the strain of scholarship in the communication to the reader were the features of Dr Sivaramamurti's book on Indian sculpture brought out some years ago by the Indian Council for Cultural Relations. The same features distinguish the present work too, which can be regarded as an ideal companion volume. The scale and style of the book cannot help implying some limitations. The transition from mural to manuscript illustration, the derivation of the Rajput and Pahari miniatures, their relation to Moghul painting and the latter's modulation on the Persian tradition are issues which have yet to be definitively solved. But one certainly can admit the expediency of sidestepping such vexed questions in a volume the primary object of which is to stimulate the layman's interest in our fine heritage and to encourage him to probe further.

This, the brochure does excellently well. Dr Sivaramamurti's forte is his deep knowledge of the literary sources for reconstructing the history of the tradition of Indian painting and his sections on the painter, the technique and the tradition, built up of such material, are revealing. The notes on this kind of material and the glossary are thoughtful additions, usually absent in such popular presentations. If the illustrations are not completely satisfying in number, quality and selection fairness demands that the reader also keeps the low price in mind.

ransport Planning and ea Development

nal Transport Survey of Mysore . Published by the National ncil of Applied Economic arch, New Delhi. Pages 570. 0.

P. P. Lakshmanan

Transport Survey of Mysore forms part of the Tamil Nadu-ore-Kerela Regional Transport vey that the National Council of plied Economic Research has rtaken with financial assistance the Research Programme Com- of the Planning Commission. urvey gives a good analytical nt of the transport inventory in tate for all modes—rail, road, l and coastal waterways and air ort. The Council estimates in a base year and makes pro- s for 1970-71 and 1975-76 on is of the anticipated increases State's population, production come, by sectors and by dis-

he basis of the transport re- ents of Mysore State for 1970- visualised by the Council, it nends investments totalling Rs crore. The methodologies d in traffic projections and the ions made have been explain- ne Council. All the assump- ade may not hold good today recommendations made need examined particularly in regard phasing of the investments pro-

is the first comprehensive rt survey of Mysore State. The needs to be repeated periodi- Transport planning is not a t affair but a continuous pro- It would be unfortunate if the is not repeated for want of A repeat survey is likely to uch less than one per cent of otal investments required to be in the State for a plan period may be five years, ten years or longer. A long-term transport would be meaningful because sport investments are frequently large and lumpy and have longer life. While a short-term plan is often aimed at maximisation of return on investments already made, a long-term plan can seek to correct the imbalances in transport created by reorganisation of the State and cater to the development of areas with regard to their resource endowments. The Bangalore area in the State has benefited from the establishment of a good transport and communications system during the British regime. Inadequate water supply and distances of raw material supplies may, however, limit industrial expansion of this area, whereas other areas in the State have greater growth potential. Particular mention may be made of the Bhadravati-Davangere-Harihar belt in the State which has all the facilities such as supply of raw materials, power, skilled labour, and efficient and cheap means of transport. This area is likely to over-shadow other areas of the State, and such possibilities tend to be over-looked in this and similar studies attempting to project, on the basis of past trends, future economic development and transport requirements.

PEST CONTROL

Insect Pests of Crops by S. Pradhan.. Published by National Book Trust, New Delhi. Pages 208. *Rs* 7.50.

K. M. Singh

The book under review has been brought out in the series 'India—The Land and People'. All the thirteen chapters of the book are written commodity-wise covering the bionomics and control of the various pests. Although this book contains just over two hundred pages, all the sixtytwo pests have been described very well. The plates well illustrate the life-histories of the pests and the damage they cause to materials.

The crop-wise description of pests gives an over-all idea of the pest menace to a particular crop and will provide a rational approach to pest control in order to avoid economic injury to the crops caused by a particular pest or group of pests.

The novelty of this book lies in the integrated approach to pest control suggested by the author at the end of each chapter. These ideas appear to be quite original and will help the reorientation of the modern entomological research. Dr Pradhan is an eminent authority on entomology, having devoted a life-time to the study of insect pests. The language used by him is simple and the layman and non-specialist can very well understand the philosophy of agricultural entomology.

As such the book will help the agriculturists in his crop protection operations.

HYV PROGRAMME

from Page 47

Seed processing centres have been started in many States, but there is considerable scope to expand them. Generally, seed supplies were adequate and timely and no shortages were reported from any of the areas under study. The bulk of the requirements of paddy and wheat seeds was met through natural spread. But, the quantity of treated seed supplied through this means was very small as compared to supplies arranged from departmental and cooperative sources. The PEO report calls for urgent attention to this aspect of the matter. It feels that the use of 'untreated' seed, specially for paddy, is likely to increase the vulnerability of the new varieties to severe pest attack.

Though supplies of chemical fertilisers were adequate, and in some cases in excess of requirements, there were problems of distribution. These related to non-availability of preferred varieties, part-time functioning of depots in some States and inadequate storage capacity. The most important reason for the poor offtake of chemical fertilisers was the unwillingness of farmers to use fertilisers in recommended doses.

While there is no shortage of cooperative credit, the extension of such credit is affected by defaulting members, defunct societies and procedural delays. The State Bank of India has launched farm finance schemes on a pilot basis in some of the selected districts of U.P. and Tamil Nadu. But, by and large, commercial banks in other States have yet to make headway in this field.

SHEEP DEVELOPMENT PROGRAMME

Progress at Hissar Farm

THE pace of work at the Central Sheep Farm at Hissar in Haryana is proceeding satisfactorily, rather ahead of schedule in certain aspects. The Hissar Farm is meant for pure-breeding of Australian Corriedales. When fully developed, it will have 16,000 sheep, yielding 2,500 rams every year for cross-breeding. The farm will introduce modernised sheep-breeding which will include land development and irrigation facilities for pasture and cereal feed for animals; and training of personnel in new extension work in the adjoining areas.

The farm land covers 2,828 hectares of which 808 hectares have already been completely fenced as per Australian pattern in a record time of 2½ months, ruling out any intrusion by stray or migratory cattle. The threat of soil erosion has also been stemmed.

It has at present 1,030 sheep. The next consignment from Australia is expected in November 1971.

Equipment for land development has been received from Australia and the Government of India has provided indigenously available machinery like jeeps and tractors.

According to the schedule, 161.6 hectares were to have been brought under irrigated crops in 1970-71 and a further 202 hectares prepared for cultivation in 1971-72. The work has progressed ahead of schedule and 191.9 hectares have already been prepared for cultivation during the next season. About some 121.2 hectares have been brought under gram and 50.5 hectares under oats, and the crops hold promise of a good harvest by March/April when the grain silos will be ready for storage.

The seven-year project in F was started consequent upon exchange of letters on May 29, between the Governments of and Australia, agreeing to the blishment of a Centrally administ sheep breeding farm with the a tance of the Australian Govern under the Colombo Plan.

The average annual wool pr tion of Indian sheep is about kilogram as against 5 kgs in so the important sheep-raising cou such as Australia and the U Whereas good quality sheep br these countries yields from 18 to kilograms of meat within four mont in India double-purpose sheep ha yield 12 to 17 kg of meat after a a year. The remedy to the situ lay in cross-breeding with which the wool and meat yield can be ped up. But in view of the prohi landed cost of a good quality fo sheep, it has been decided to emphasis on pure-breeding of able foreign stock for multiplic The progeny of subsequent ge tions can then be used for an e sive cross-breeding programme. the Hissar Farm will be devote the breeding of Australian breed other two Central Sheep Farm Gujarat and Jammu & Kashmir be meant for the pure-breedir Russian Merinos.

MANAGING AGENTS *from Page 4*

the right to receive a dividend, in the event of a divisible profit available for the purpose. The interest payments should be treated as expenditure. It may be argued that there are other ways to ensure minimum return from investment,—debentures, preference shares and the like. But the advantage of the proposal is that the shareholder would be entitled to share in the fortunes of the company, in addition to the interest. He thus becomes part owner and part lender. This, in effect, is recognition of the fact that a shareholder is, under the present altered conditions, a passive agent who merely expects a fair return for his investment. The fuller recognition of this fact would also strengthen the capital market.

Another myth is the election of directors by the shareholders. The fact is that directors either elect themselves or are nominated by the Government. The management of industrial companies in the private sector, no less than the public sector, should be considered as a public responsibility. Board of Directors should be appointed not by, but on behalf of the shareholders by the company. When thus appointed they will function with a greater sense of responsibility and with more effective control over the Managing Director.

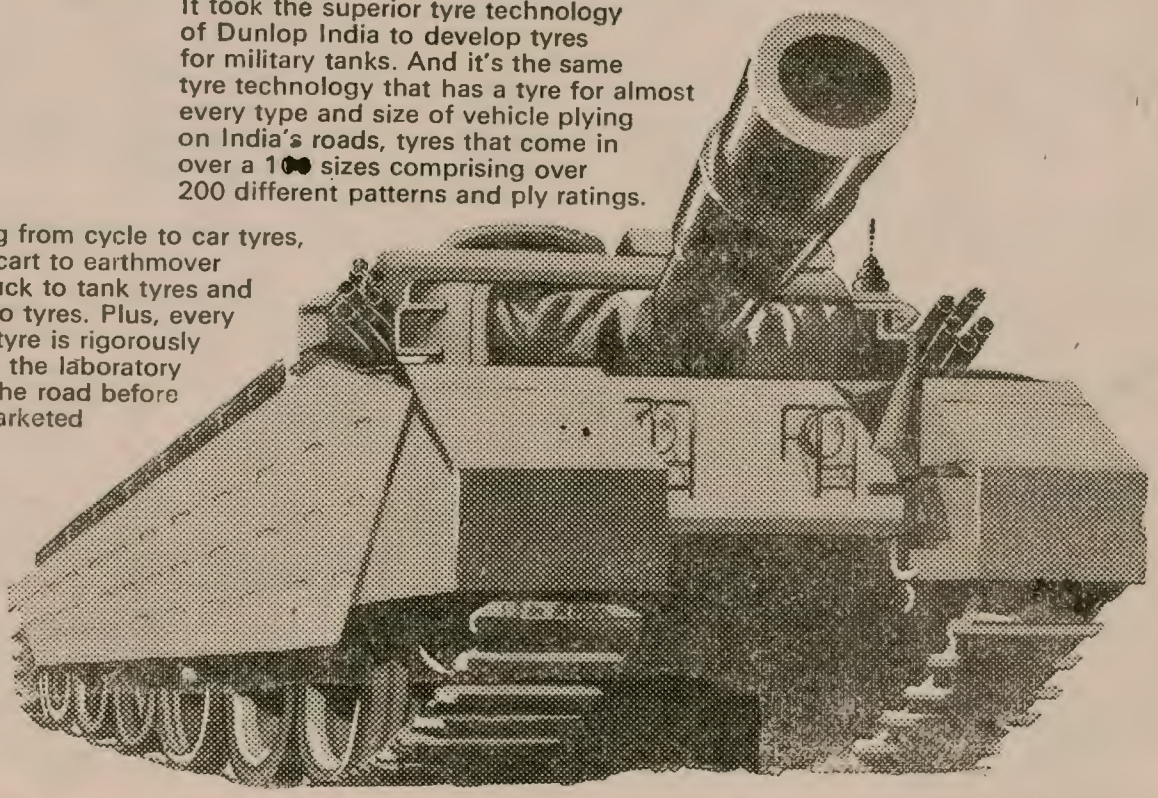
The best system of management would be to have an internal Board of Directors, consisting completely of heads of departments of the industrial unit. should be a financial director, a technical direct marketing director and a general director who ca designated Chairman or Managing Director. Dir should also be appointed by the LIC and the Unit who might supervise the work of the Managing Dir If, however, it is felt necessary to have an outside el in the Board of Directors, it would be desirable to c tute a Board composed of internal directors and tw three supervisors from outside the company. Thi tem is bound to bring better results than the p board system of management. What we need is a w time board of directors with just two or three nomi directors to bring the larger social and governmental ments into the functioning of management. The s visors and the outside members would be appointed the strength of their past experience and knowledge

In conclusion, the supreme fact to be recognised that industry, whether of the public sector or of the vate; is a social responsibility. A private enterprise differ from its brother in the public sector in that affairs are not accounted directly to Parliament thro the machinery of the Estimates Committee. For the both have responsibilities to the Government, to la and to the community at large.

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ENGINEERING NOTES

VITATION MOTOR

K. K. Paul Choudhury, an at the Gauhati Cottage Training Institute, spent e and a half decade to deve- chine, which, he claims, will the cost of generating power lustries and save the labour. ntrivance is based on the at a wheel moving over a cir- ne under the force of gravi- ll continue moving without ovided the circular plane es in opposite direction at speed relentlessly.

developing this theory, it d that the weight load on ted on the circumferential a circular plane—with the point of the lever resting and over a stationary circular ives the lever through one of a revolution, pushing the balance upward at an angle egrees. Since the wheel can d upward to a certain degree ever system acting under the load it can be assumed that te revolution of the wheel obtained by the simultaneous of so many different levers nder the weight load. Matters so arranged that when one moved the wheel a second ns to operate, followed by ver and so on. Thus, the s, fitted over the wheel, will urpose of a full revolution el in continuity.

'gravitational motor", so called it relates to the gravitational eating mechanical energy for motion. It creates an auto- urce of constant power in pro- a ver-ending rotatory motion view to putting it in exchange er engines of the age for eli- g th huge expenses of fuel, nsu.ed for obtaining mechani- rgy for power of motion. This an be utilised for running a without any fuel cost.

ding to the inventor, the cost oto-type gravitational motor exceed that of a bicycle.

LT Sulphuric Acid Plant

First of its kind in India

The Gujarat State Fertilisers Co. Ltd., as placed an order with Larsen & Toubro Limited for a sulphuric acid and oleum plant with a capacity equivalent to 220 tons per day of acid. The plant will be the first of its kind in India to work on the double absorption system. This system utilises the latest technique in reducing the content of sulphur dioxide in effluent gas.

It will produce 85 tons of sulphur dioxide and 85 tons of oleum. The latter two products will be utilised to produce caprolactum, which is now being imported by the nylon industry. The Gujarat Complex will produce 20,000 tons of caprolactum besides other byproducts and, when in operation, will save the country foreign exchange worth Rs 8 crore per annum.

Dunlop Conveyor Belting Neyveli

Neyveli Lignite Corporation has just placed an order for Conveyor Belting worth Rs 1.5 crore on Dunlop India, including Rs 88 lakh worth of 1500 mm. wide overburden belting specially developed for this project. This is the largest single order ever placed on any manufacturer of Conveyor Belting.

Dunlop was the first in India to manufacture rubber conveyor belting in large sizes and also was the first to manufacture fire-resistant and anti-static PVC conveyor belting.

Gravitrol 1500 to help Marine Industry

From our Bombay Correspondent

The Sharples Gravitrol 1500, a machine discharging oil-free sludge and moisture from heavy fuel, has been manufactured by a firm in Bombay.

Though adapted to 100 per cent automation, it can also be operated manually. During automatic operation, the control panel takes corrective actions against all possible faults, simultaneously giving audible and visual alarms.

The Sharples Gravitrol 1500 with a stainless steel bowl and built-in pumps, has many important features. In fact, this machine can be the only answer to the present need of post to post non-stop operation of uninterrupted voyages. It has a capacity of 3 tons per hour for high viscosity fuels and lube oils.

It has only 25 per cent imported components and with planned production and progressive import substitution, the present requirements of India's entire marine industry can be met.

NEW AIR PUMP

Mr Lucien George Dubern of Calcutta has invented a novel air pressure hand-operated pump which can draw water even from a depth of 75 ft. as against 27 ft. for the conventional tubewells. The limitation of depth is due to the fact that the water barometer reads 29 ft. for normal atmospheric pressure.

This invention provides an air-pressure pump comprising lever means connected to a first piston through a connecting rod, the said piston being reciprocable within a cylinder characterised in that the connecting rod is also fixed to a second piston which reciprocates within an air chamber. The bottom of the cylinder is in communication with the water level underground by means of a first pipe. The first piston is connected to a hand lever by a connecting rod which is also connected to a second piston reciprocable within an air chamber mounted above the cylinder so that the axes of the cylinder are in vertical alignment. The main advantage of this invention is that due to the extra pressure head water can be even drawn from a depth of 75 ft. obviating the handicap of conventional type of tubewells.

Another advantage of the invention is that by making a pressure in the tubewell, fine sand particles, which would otherwise be sucked in under vacuum, do not choke the filter at the bottom of the well. The result is that air-pressure pumps constructed according to the invention have longer life whereby maintenance costs are appreciably reduced.

One more important advantage is that no prime mover, such as electric or diesel motor, is required to operate the air-compressor, which means that the inventive pump is more economical to use.

Development Diary

* The Central Building Research Institute (CBRI), Roorkee, has evolved a large size solar water heater with a capacity to heat 600 litres.

* The Indian Airlines made the highest net profit of Rs 2.28 crore in 1969-70. The foreign exchange earnings of the airline amounted to Rs 8.50 crore, the highest ever against Rs 7.61 crore in 1968-69.

* A handy, mobile soil-testing kit has been developed by a small firm in West Bengal, which gives on-the-spot results and is easy to handle, even by illiterate farmers.

* The State-owned Biological Products Institute in Bhubaneswar has started producing vaccines for Ranikhet disease, which claims a large number of animal population in the country every year.

* The Planning Research & Action Institute, Lucknow, has developed an expeller, which will raise sugar recovery from cane up to 9%.

* During 1970, the ore traffic through Mormugao Port, the leading ore port of India, crossed the 10 million tonne mark.

* Under a Rs 10.98 crore agreement signed with a Japanese firm, India will import a facility for exploiting under-sea oil resources. The facility, capable of drilling oil wells at a depth of 80 metres under water, will be used for the development of under-sea oil resources in the Gulf of Cambay.

* Plant protection measures were extended to 17 lakh hectares of land in Haryana in 1969-70 as against 6 lakh hectares covered during 1967-68.

* The Hindustan Housing Factory, a public sector undertaking, has achieved a record out-turn of the value of Rs 1.98 crore during 1969-70 as against Rs 1.93 crore in 1968-69, Rs 1.80 crore in 1967-68 and Rs 1.43 crore in 1966-67. During 1969-70, the Factory also made a record profit of Rs 26 lakh as compared to Rs 20 lakh in 1968-69.

* According to an analysis undertaken by the Directorate General of Technical Development, the production of 112 items selected for study of import substitution has registered an increase of 9.9 per cent in real terms in 1969 over that in 1968.

* Indian Railway Engineers are to assist the State Railway of Thailand in increasing the speed of passenger trains.

* India has signed a five-year (1971-75) trade agreement with USSR which envisages a significant increase in the two-way trade exchanges. Introduction of progressive diversification in exports to each other is a notable feature of the new agreement. The agreement also contains new clauses providing for joint co-operation in third countries and exploration of new avenues of industrial cooperation, which will promote increased trade exchanges in existing and additional fields.

* Under an agreement signed with Denmark the Indo-Danish cattle development project at Hassarghatta in Mysore State has been extended up to March 1975. The project, which was started in May 1963 with Danish assistance, has contributed substantially to the development of dairy farming, cattle development and cross-breeding in and around Hassarghatta. Besides strengthening the existing centre at Hassarghatta the agreement also envisages the establishment of three subcentres in Mysore State.

* The per capita availability of cloth since 1950 has gone up by nearly 40 per cent. In 1951, the per capita availability of cloth which comprised cotton cloth only was 10.99 metres. In 1969, it had risen to 15.10 metres.

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