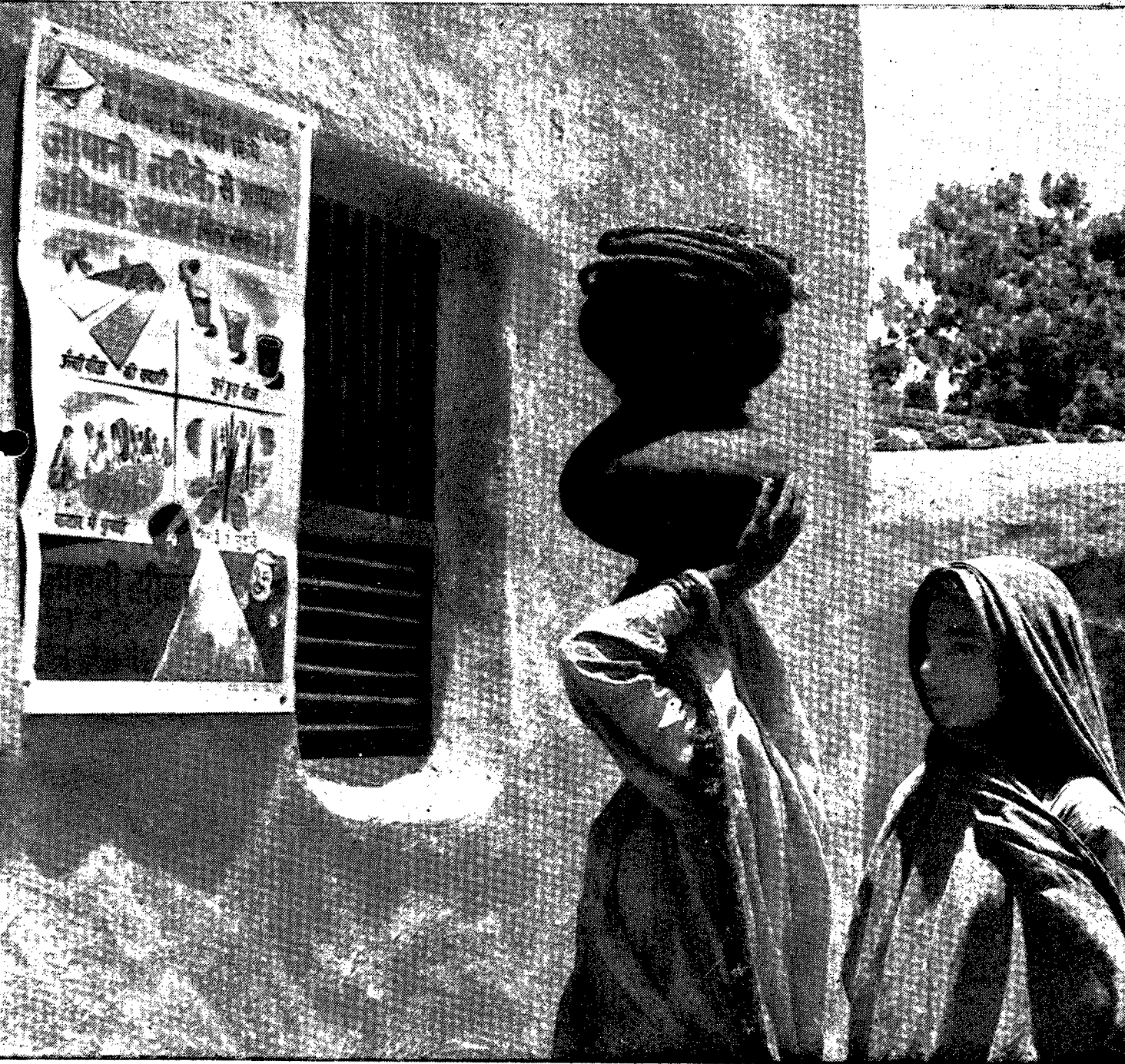


PLAN and BUDGET

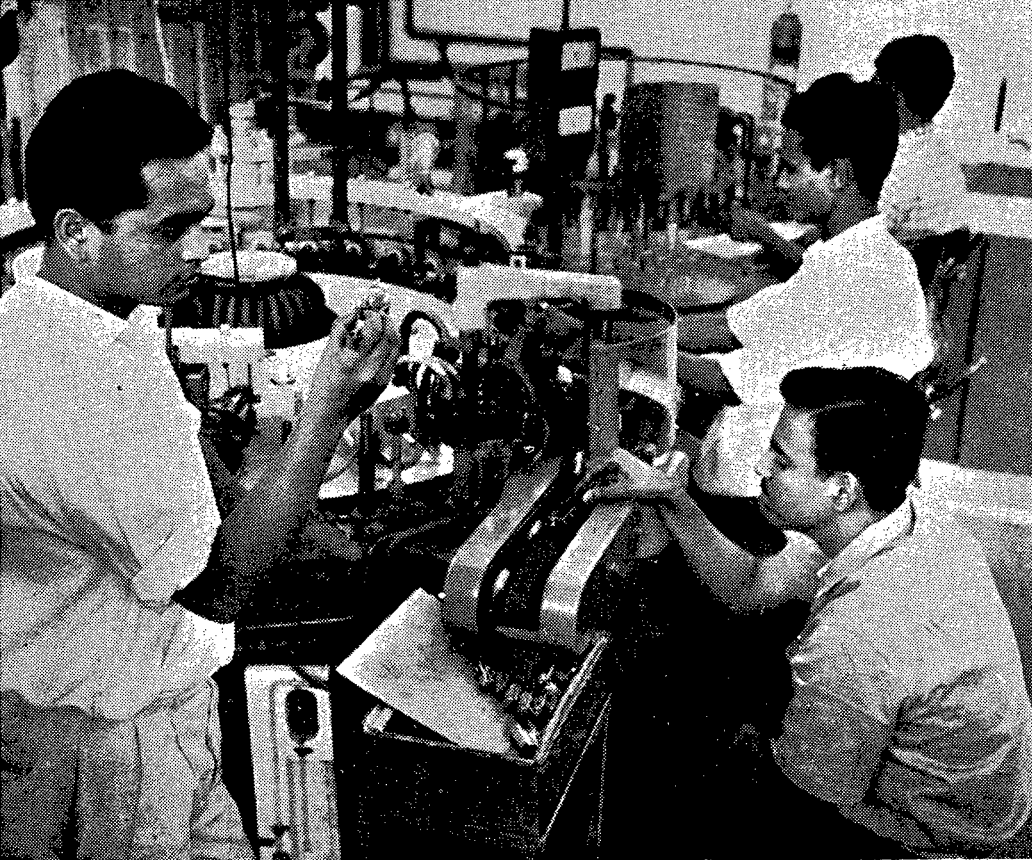
YOJANA

Fortnightly Journal Published on Behalf of the Planning Commission



MAY 13, 1962
VASKAHA 22, 133

WOMEN AND SOCIAL WORK
PROGRESS OF RESEARCH IN ELECTRONICS



Bangalore'

B

Make

SHARPER EYES AND EARS FOR THE COUNTRY

ABOVE : Valves roll out of the assembly line, and each is tested by keen, young technicians specially trained for their jobs.

RIGHT : A girl mechanic winding the coils of a transformer.

Photographs

K. NARAYANASWAMY

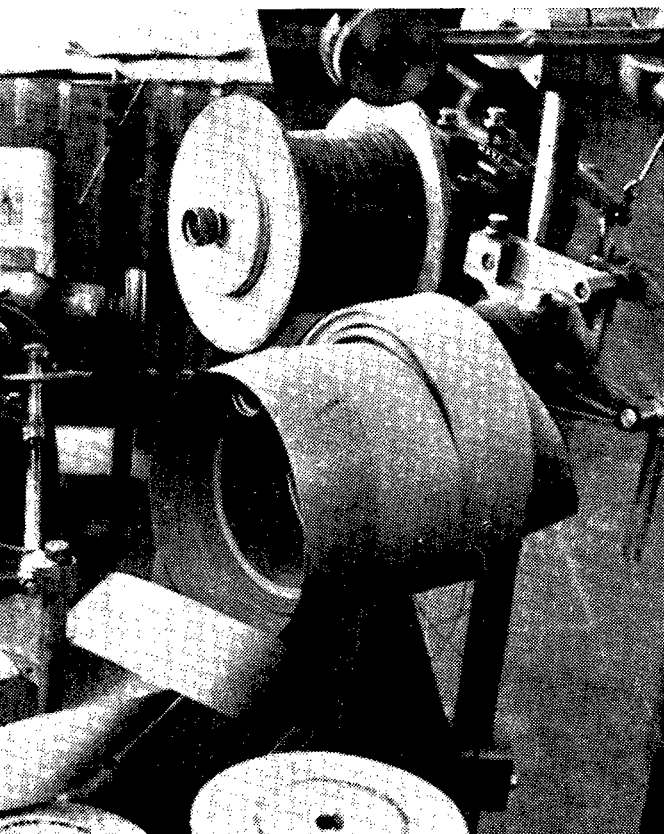


BEL

*Steady
Progress*



Since girls come with nimbler fingers than boys, modern industries all over the world, especially in the electric line, prefer to employ girls for those kinds of work which require concentration and dexterity. A belle of BEL is here fitting in the minute precision parts of a radio valve.



THE city of Bangalore is more picturesque in its edges than at its centre. The buildings in the heart of the city are somewhat nondescript but the outer suburbs, rocky, wooded, undulating, house the numerous educational institutions and industries for which Bangalore is famous. Here you see the granite turret of the Indian Institute of Science and there the curved roofs of the Aircraft Factory.

If it is the home of silk, coffee and scholars, Bangalore is also one of the more celebrated military towns. As a young subaltern Churchill lived in that cantonment nearly seventy years ago. The combination of military, academic and industrial traditions has made Bangalore the natural choice for several defence industries and defence research establishments.

Bharat Electronics, situated in the suburb of Jalahalli, is one of these. It was started in April 1954 to produce electronic, radio and other equipment for the Defence Services, Government organisations and research institutions.

EVEN after the Second War, almost all our requirements of such equipment were wholly imported. The Government of free India realised the importance of encouraging the growth of this industry and decided to

establish an electronics factory in the public sector. Under the Industrial Policy Resolution the manufacture of defence equipment and wireless apparatus (excluding radio receiving sets) was placed in Schedule A, of industries reserved for the State.

A French firm, Compagine General-de-Telegraphic Sans Fil (C.S.F.) of Paris, was selected as the technical consultant. The project was entrusted in 1951 to the Ministry of Defence. The Bharat Electronics Limited (BEL) was formed as a limited concern in 1954 with an authorised capital of Rs 10 crore wholly subscribed by the Union Government, with the objective of making transmitters, transceivers, oscillators, valves, amplifiers, radar, X-ray machines, surgical appliances and electronic parts.

The factory went into production in December, 1955. A training school had been opened earlier, in October, 1954, to train radio mechanics to the actual needs of the factory.

Later, in 1959, BEL signed an agreement with Philips of Holland for producing radio valves. The first valve parts were made in November, 1960, and the millionth valve came out of the factory on January 23, 1962, fifteen months later.

Increasing Production

A report presented to Parliament five months ago on BEL's seventh working year showed that the record of the Factory had improved from year to year and that the task set to it was being steadily fulfilled.

Production rose from Rs 5.97 lakh in 1956-57 to Rs 171.58 lakh in 1960-61. The working results for 1960-61 showed a net profit of Rs 11.85 lakh (as against a sum of Rs 7.04 lakh in the previous year.)

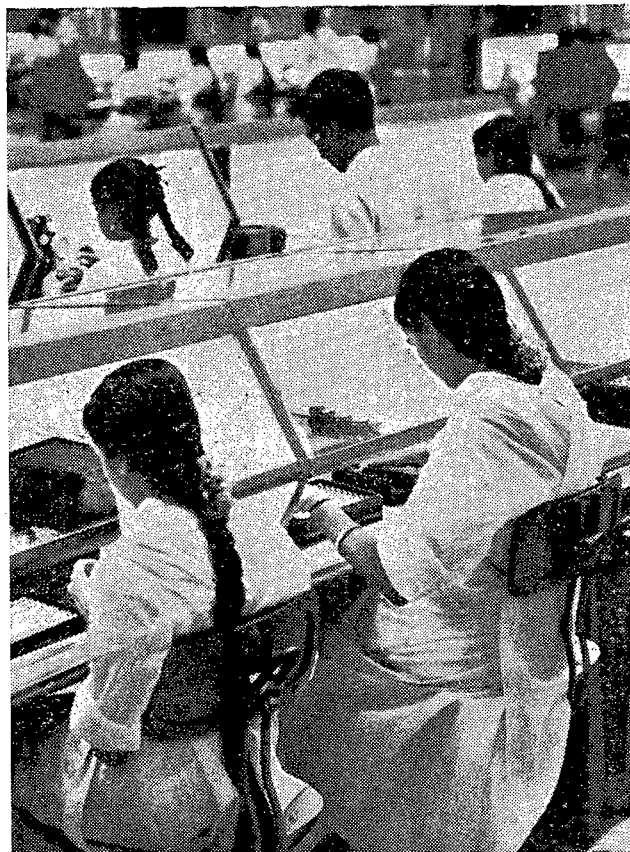
The production target originally planned for the year (on the basis of selling price) was Rs 178.28 lakh. As a result of economic production, however, BEL was able to reduce the selling price of one product. The target was therefore readjusted to Rs 175 lakh. The actual value of production achieved, of completed equipment and work in progress (both expressed in terms of selling price), added up to Rs 171.58 lakh. In addition, BEL produced tools, jigs and fixtures worth Rs 4.87 lakh and miscellaneous works of Rs 2.47 lakh.

Manufacture was further diversified during the year to meet the customers' requirements. Noteworthy among the additional types taken up were HF transmitters and single channel VHF trans-receivers. In the case of another VHF Trans-receiver a four-channel version was added to the production line. Another outstanding achievement during the year was the successful designing, development and manufacture of a master oscillator for a major equipment in the CSF range of production.

Bharat Electronics is planning to make a whole range of newer products. Production of transistors and diodes will begin by the middle of next year. Production of valves will be stepped up.

New Lines of Research

BEL has a Research and Development Department to foresee future requirements and develop new equipment to meet them. An achievement of this department was



The valve assembly shop of Bharat Electronics. More Girls.

the development of a twin channel VHF transreceiver for air-to-ground communication to be fitted into the HT-2 trainer aircraft. A transistorised hearing aid has also been constructed and tested. An electronic megaphone, called Belhailer, with self-contained power supply, is another of BEL's products. It will greatly help the police, fire departments, Defence establishments, railways and dockyards.

Besides, BEL will soon manufacture high fidelity tape recorders and some electro-medical instruments besides radar, the most important item. In monetary terms, BEL's annual production is expected to go up to Rs 4.5 crore. But its real contribution to the Defence services, civil aviation, meteorology, broadcasting and communications will be inestimable, for it will make them less dependent on foreign equipment.

NEW DEPOSITS OF COAL AT KARGALI

The National Coal Development Council has approved a plan to excavate coal from the 70-foot thick underground seam in the Kargali colliery in Bihar. The seam contains a reserve of 26 million tons of good quality coking coal of which 17 million tons are minable. It will yield 3 lakh tons every year for more than fifty years.

Another 12-foot thick underground seam at Kargali is also being exploited by the Corporation. The Kargali colliery is expected to produce 72 lakh tons of coal annually from both the opencast and underground mines.



A Gram Sevika under training supervises the play-time of two nursery-class children at the Kamala Nehru Vidyalaya, Sewait, Allahabad

—By—
Krishna Das
Gupta

identified itself with the renaissance and the struggle for national freedom. Many of our women leaders were in the vanguard of our cultural rebirth and the freedom struggle, respected for their ability and valour. Others helped the freedom fighters in a thousand ways—inspiring them, providing them with spiritual sustenance, suffering away from the limelight, and bearing the full brunt of the imperialist wrath that descended on the relatives of the nationalists. Thousands of homes gave sanctuary to political fugitives.

Thus the women of India kept the torch burning. When Independence was achieved, the country proved its gratefulness to them, by asking them to share fully the privi-

WOMEN'S ORGANISATIONS

What They Can Do To Serve *the* Community

It would not be right to compare the women's movement in India with that in the West. But the two provide excellent points of contrast. In the West the militant suffragettes wrested political rights from the hands of unwilling males; in India, however, full political rights and privileges are being conferred on women, many of whom are hardly conscious enough to exercise them effectively. The Indian woman has not yet won back the proud position she held in the early times of Indian history. She is still largely dependent on her menfolk, and political equality can become meaningful only when backed by everyday social equality.

It is precisely this task of achieving the integration of political rights and social practice that our women's



Several Ministries of the Union and State Governments as well as numerous private organisations conduct training courses for women to enable them to add to the family earnings or, sometimes, even to maintain themselves. These classes are particularly popular. This picture of a matron and a young girl sitting side by side doing embroidery is from a training and production centre in New Delhi.

movement has set itself to perform.

Fortunately, from the very start, the women's movement in India

leges as well the burdens of citizenship.

Construction is always more toilsome and less glamorous than battle. But the womanly virtues of patience and tenderness are in greater need in the task of national rehabilitation. Various women's organisations have taken up the challenge. Prominent among them are the All-India Women's Conference, the National Council of Women and the Federation of University Women. These organisations have branches all over the country, mobilising women for the work of national reconstruction, particularly the welfare of women and children.

The Women's Conference has as many as 56,000 active members, and it enjoys consultative status with the United Nations. It works in the field of social health, family planning and child welfare, education and cultural activities. It also runs hostels for working girls. One of its branches has started a cancer hospital and another runs creches. Its workers are active in programmes of distribution of food and milk



Expansion of the social welfare programmes requires a large number of trained women. These people have to fan out into the villages and teach the rural housewives how to read and write, sew and embroider, and take better care of their homes and children. A Calcutta Social Worker is here holding an adult literacy class.

and in flood relief. The Federation of University Women watches over and strengthens women's professional and academic claims.

Almost all the political parties attach importance to the feminine vote. They often have special departments for women. More and more women are being selected as party candidates. In the Third General Election, nearly 130 women candidates were elected to the State Assemblies and 36 to Lok Sabha. India can feel proud that it has larger number of women legislators than many of the so-called advanced countries. Women have also distinguished themselves as ministers. The Union Council of Ministers includes four women. The State Governments have many women ministers and deputy ministers. A woman has been elected as Deputy Chairman of the Rajya Sabha. Women have held the highest offices in political parties. They have also distinguished themselves in diplo-

macy, medicine, education and social services.

Ground-level Training

BESIDES the all-India organisations, there are many women's clubs and institutions in the various towns and regions. Some give women training in handicrafts. Others provide shelter to the destitute and needy women. Yet others undertake social work.

Welfare organisations, understandably, have a high proportion of women members. The Central and State Social Welfare Boards, the Small Savings Committee, the Women's Food Council, the Association of Moral and Social Hygiene, all these are directed to a great extent by women members. In organising maternity and child welfare centres, running craft centres, providing employment to women, setting up adult education centres, rehabilitating educated women, collecting small savings, and popularising family planning—

these organisations have made an important contribution.

Some organisations such as the Nari Niketan, the Nari Raksha Samiti and the All Bengal Women's Union have in particular taken up the task of rehabilitating minor girls rescued from places of ill repute. The Nari Niketan has about 2,000 such inmates who now have a chance to lead a new life. The institution arranges for the marriage of the girls if possible, or restore them to their homes if their people are willing to accept them, or trains them in different handicrafts. The All-Bengal Women's Union likewise provides a home for destitute women, and arranges for their vocational training. It also has a children's welfare home, providing orphans with shelter, education and vocational training.

Women's organisations like these are to be found in almost all towns and cities of India. The Community Development movement is, besides, sponsoring *mahila mandals* in the villages. These institutions provide recreational facilities or craft training and also undertake welfare in urban slums and villages.

There is need for more such clubs. In the cities and larger towns, especially, there is great scope for such clubs attracting the middle class housewives and harnessing their intelligence, energy and constructive ability for the good of the community. At the same time they will also have an opportunity for recreation and cultural diversion.

Under the guidance of a conscientious well-educated social worker, every woman can come to consider her locality as an extension of her home. Through the concerted efforts of women, many ills of the locality can be cured, as also many grievances redressed. The feeling of helplessness about civic shortcomings that is now widespread can be overcome. In these matters women are capable of better leadership than men.

This sense of personal responsibility for the social situation is spreading, and women's organisations in the country are showing a good deal of initiative. But not all women who have received a higher education are performing adequate service to the community. As regards

Educated Women Must Overcome Temptation of Easy Life

women with professional training, there is no dearth of opportunity for them to put to meaningful use the skills they have acquired; yet, to use the language of Mrs Aruna Asaf Ali, "certain social and emotional barriers frequently prevent women in the field of emotional activity from coming into their own."

According to Mrs Asaf Ali, educated women, who ought to have a pronounced sense of social responsibility, are seldom able to resist the temptation of an easy life. It is often the girl from the leisured class who can afford to go in for higher education, but as soon as she gets married, her technical knowledge as also the advantages of a liberal education is lost in most cases to the community. Because the compulsion of economic necessity is not there, educated women feel no qualms about wasting their talents; they do not feel obliged to pay back to the community in terms of service, the expense and effort that society bestowed in allowing them to be educated. Often the academic degrees of marked women are more or less used as ornaments—for decoration rather than for anything else.

Converting the Affluent

Mrs Asaf Ali feels that somehow these women with higher qualifications, who are now free from the necessity of earning a livelihood, should be persuaded to work for the community. They could be the backbone of a really sincere and honest cadre of social workers, which the country so urgently needs. There is already a healthy sign visible amongst women who come from somewhat poorer sections, a large number of whom are seen taking up part-time or full-time jobs, to eke out the income of their families. The pity of the situation is, however, that even with the hard labour of both husband and wife, the bare necessities of many families cannot all be secured. The story of Mrs Asha Lata, whom I met in Calcutta, bears this out. She is an insurance



Mrs Tarabai Modak, leading social worker of Bombay, who has been recently honoured by the President for the service she has rendered to the needy and the unfortunate

agent and with the greatest of application and effort she is just able to scrape up a meagre income of Rs 60 to 70 a month. At that time she had three grown-up daughters and two sons and the husband out of work. She is, indeed, hard put to make the ends meet. She told me that death alone could relieve her from the life of grinding want and the misery of seeing her own children go without so much as proper food and clothing.

In the opinion of Dr Sita Sen, the Delhi doctor, facilities for part-time jobs for married medical women should be created on a larger scale, so that they may attend to their jobs and look after their families simultaneously and thus keep themselves in touch with the profession. As a matter of fact, a proposal on these lines has been submitted to the Health Ministry.

Absence of proper security is a great social barrier against the work-

ing of women, particularly in the villages. In the opinion of Dr Sita Sen, it is useless to ask doctors, particularly women, to work in the villages unless proper working conditions are created there. She had another very interesting suggestion to make: one central hospital could be created for the benefit of several neighbouring villages with residential quarters for the women doctors.

Beware of Glamour

Anyway, if Indian educated women as a class were to render adequate service to the community, they must first of all get rid of what Mrs Asaf Ali calls "emotional barriers". They must get over the ghost of the feudal past, the glamour of a parasitic existence, and the desire to shine in the reflected glory of the successful husband. While more women work in our country to-day than even before, we do not regard the working woman with the same respect as western countries do. I feel that it is this attitude that leads educated women to keep themselves aloof from their less fortunate sisters. Of course, this attitude is often reciprocal—since, by and large, educated women are considered haughty and contemptuous of their surroundings. It is time that this change was disproved. Mrs Asaf Ali feels that the present system of education leaves much to be desired in this respect. Education should inspire the students with the clear concepts of the future of the country. Through imaginative teaching of modern history and a proper interpretation of the Constitution the students must be enabled to have a vision to live for.

All said and done, the present opportunities for higher education and employment are not adequate even for men, far less for women. Most parents in our country continue to think about marriage as the only possible and perhaps the most sensible career for their daughters. This way of thinking must change, since the social conditions have changed. This task of reorientation through training and extension among different classes of women must necessarily be an important plank in the programmes of the various women's organisations in this country.

"WHAT does this expression 'public health engineering' mean at all?" I asked myself, with all the curiosity of a layman, on my way to the Public Health Engineering Institute at Nagpur.

Soon Mr M.V. Bopardikar, Assistant Director of the Institute, made me wise to the magnitude and complexity of our problems of public health and explained the role of engineering in this task. The issue, simply put, is this: We have to create a healthy environment for the 440 million of our people living in different climates and having different habits. Each of our villages must become cleaner, and our urban areas, where industrial growth generates congestion, must get fresh air and pure water.

What is the Institute's contribution towards solving these problems? In

This Institute works for

CLEANER TOWNS and VILLAGES

M.K. Pardhy

Mr Bopardikar's words, public health engineering, which includes sanitation, supply of clean drinking water and disposal of sewage and industrial wastes, "has to be studied scientifically and the study involves many sciences like medicine, botany, zoology, chemistry and so on. The scientific study of these problems is the function of our Institute."

SEARCH FOR NEW METHODS

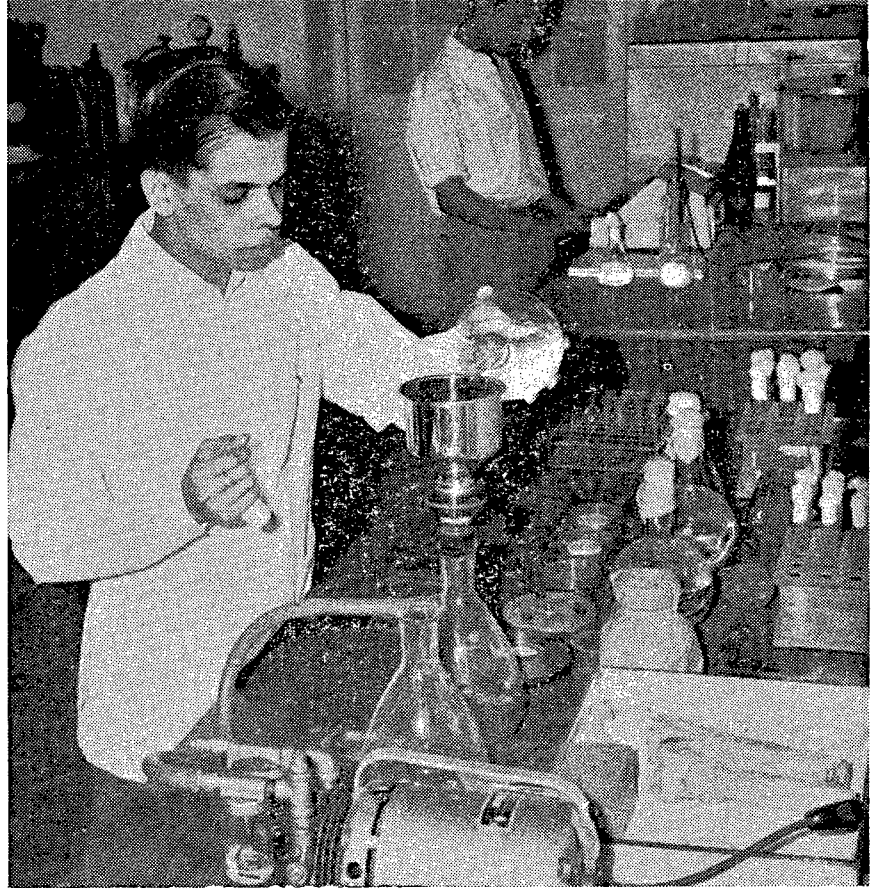
The Institute, a link in the chain of national laboratories set up by the Council of Scientific and Industrial Research, started functioning in April 1959. It has four zonal headquarters at Delhi, Bombay, Calcutta and Hyderabad and eleven field centres all over the country. During the Third Plan, 15 more field centres are to be added.

"That means that your work will yield results only in the long run", I interjected.

"No. We are meeting many immediate public needs. Our work is not just academic. We are practical people adopting scientific methods. The results of our work are immediately applied in the field. We select those problems for study which need urgent solution. In addition to the general problems, specific problems are referred to us by the municipalities and big industrial establishments. We study them in the laboratory as well as in the field and give our advice. We even evolve new devices and processes and help in installing them."

"How do you help people in the rural areas?" I interrupted.

"Our purpose is to evolve improvements which are easy and cheap. Take, for instance, sanitation. We all complain that our villagers do not take up new ideas. But they really do, provided we make it easy and cheap for them, and provided we do not hurt their susceptibilities.



A research worker carrying out bacteriological examination of water at the Institute

During the past three years of research we have evolved quite a few new methods. You will see them when you go round the different sections"

SANITATION AIDS

I visited all the five sections of the Institute—environmental sanitation, botany, zoology, bacteriology and chemistry. In the last four sections, the work being done was too technical for my comprehension although the working of different apparatuses and the typical laboratory smell reminded me of my school-days. The environmental sanitation section, however, did not demand much scientific background. It had on display a number of latrine models, *choolahs* and other domestic things.

Latrines are a novelty or an affection in most of our villages, where the people prefer the great outdoors. This results in a foul air around the village and loss of good manure in the form of night soil. The

Institute has evolved types of latrines which can be fabricated locally and set up at a cost within the means of a villager.

A gas plant has also been designed by the Institute to utilise cowdung. About 60 such gas plants have already been set up in private homes. The gas plant, which provides light for six hours a day for a family of about six persons, costs Rs 600, but with further modification the cost is likely to go down to Rs 300.

Experiments are also being carried out for using chemicals to disintegrate night soil, free it from worms and make it a usable manure. In our villages and towns the hateful practice of carrying headloads of night soil still persists. To say it is unhygienic is an understatement; it is inhuman. This practice has to be abolished before we can speak of social justice. The Institute has devised different kinds of wheelbarrows to carry night soil in closed bins.

A method of mechanical composting for the utilisation of refuse as manure, cheap urinals, economic and

urban areas. Epidemics and diseases are often the result of polluted water being drunk. The Institute has been making various experiments to purify drinking water. Bacteriological analysis is being carried out to find out how water can be made suitable for consumption. The purpose is not to remove all the bacteria from water, which is not advisable as certain bacteria in a certain proportion are essential for human health. (Where would we be without the bacteria which convert milk into curds?) The Institute aims at devising means to minimise the time spent in bacteriological analysis and at fixing bacteriological standards of pollution.

The Institute has designed a porous earthen pot, called 'cartridge', for purifying water in the wells. The cartridge, filled with disinfectants, is put at the bottom of a well. The cartridge releases chlorine in a gradual dose and keeps water clean for a longer time. What is called Microstrainer is another method used by the Institute for filtering water. It reduces the cost of chlorination.

treating surface water containing heavy turbidities and organic matter. This apparatus can be worked at a low cost.

Vaporisation of water is another problem for study. If the rate at which water becomes vapour could be cut down or lessened, supplies of water will last longer. The Institute is carrying on research in this direction. The tract of saline water in Vidarbha is also a problem taken up by the Institute for research. Hundreds of villages in this stretch have been suffering from shortage of sweet drinking water for centuries.

TREATMENT OF SEWAGE

Treatment of sewage is another related problem on which the Institute has carried out extensive research. The microstrainer is used for this purpose also.

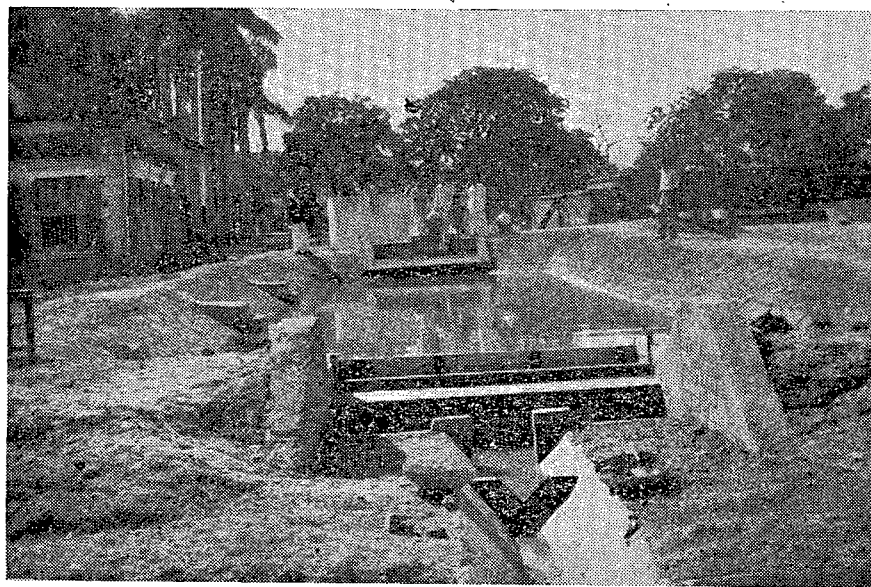
The Institute has set up experimental oxidation ponds to treat sewage by biological means. Certain types of algae, a kind of green vegetation popularly known as moss, are introduced in the ponds. There they grow and make the water innocuous. The algae also yield valuable by-products. I saw large bottles kept in the open. The tiny green fibrous clusters floating on the water inside the bottles were the algae. The experiment was for observing their growth.

PRACTICAL RESULTS

"The purpose of our research is to devise indigenous methods which can be used all over the country, in villages and cities, in homes and big establishments at an economic cost," said Mr R.S. Mehta, Director of the Institute. "The Institute is expected to serve a useful purpose in tackling the practical problems of sanitation and public health."

I was told how the Institute puts into practice, for public benefit, what it achieves by experiments. Last year the Institute earned Rs 60 lakh by giving advice to the industries and municipalities. It also launched a project campaign of sanitation at Koholi, a village near Nagpur. Purification of drinking water, disposal of night soil and the introduction of domestic sullage

(Continued on page 26)



An oxidation pond used for treating the sewage.

comfortable *choolahs* are some of its other devices which the Institute wants to popularise in the rural areas.

CLEAN WATER SUPPLY

What I could gather in other sections can be summed up thus:

Supply of clean water has become a difficult problem both in rural and

It is being tried at the Vihar Lake, which is one of the sources of water supply for Bombay City.

Certain industries require water free from salts and organic matter. The Institute has designed what is called a "clariflocculator" unit for

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

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—Pride of Place	

Cover: Two rural housewives near Delhi read about the Japanese method of paddy cultivation. India has just concluded an agreement with Japan for the setting up of four demonstration farms for the Japanese method. (See news item on page 23).

NEXT FORTNIGHT

Tribal Welfare
Programmes

Modern Careers For
Women

THE CALL OF DUTY

THE Third Plan estimate of resources assumes that the Union Government will raise Rs 1,100 crore by way of additional taxation and the State Governments Rs 610 crore. Considering the requirements over the next five years and the rise in incomes expected, "this order of additional taxation is essential and practicable". As the Third Plan document further pointed out, the Central budget of 1961-62 made a "substantial beginning towards this effort".

The same earnestness and dedication mark this year's Central budget also. With people expressing their endorsement of the Plan in the General Election, the Finance Minister is justified in calling for a higher level of contribution all round and in reminding the nation that the only alternatives to taxation are stagnation and inflation. He has also done well to outline, in language that is clear and forceful, the objective guiding our tax policies. This objective is much wider than merely raising resources for the exchequer; in a planned economy like ours, taxation has to augment savings, promote exports, bring about a better balance between supply of and demand for goods and achieve social justice in the matter of rewards and sacrifices.

Each of the specific tax proposals made in the Budget of 1962-63 is animated by one or other of these purposes. The austere Gladstone once said that direct and indirect taxes were like two sisters to whom equal devotion should be shown. Mr Morarji Desai has done so. From those whose incomes are going up, he seeks more for the nation as direct tax. But since these privileged people are a mere one million out of our 443 million, he is compelled to increase some indirect taxes also. However, the choice of levies has been so made that they fall more heavily on the upper and middle classes than on the poor. Every care has been taken to see that industrial costs and prices do not rise. Indeed in its general effect the budget is against inflation.

The levies of the last budget will yield Rs 450 crore over the Third Plan period. With this year's proposals, the Union Government will have met much more than half of its obligation to raise Rs 1,100 crore for the Plan. This is commendable proof of grit. The State Governments ought to emulate it.

Taxes can rarely hope to get unanimous welcome, especially in a democracy in which the citizen's right to grumble is recognised and respected. While every effort should be made to slash waste, it is hard to imagine ourselves returning to an era of low or no taxes. Even with a large plan, we cannot "accommodate all the legitimate aspirations of our people for more schools and roads, for more power and drinking water, for more transport and employment opportunities". Our people have a right to all these, and they can only be created out of what they save voluntarily or through taxes.

RESTING IN PEACE

A FEW, very few, work themselves to death; but many more in fact relax themselves to it. Really? Can leisure kill? We have it on the best authority—that of *Lancet*, the celebrated British medical journal—that it does.

The world continues to have admirers of a pastoral way of life who believe that industry and urban living are the source of all disease. Even they cannot any longer cling to their belief because of the disclosure by Mr Paul Hoffman that farmers in the interior of Indonesia have been found in a survey to have as many cases of gastric ulcer as executives in New York. No, work is no killer and calm no balm. Idleness is not only evil, as the Prime Minister often reminds us; it is also murderous.

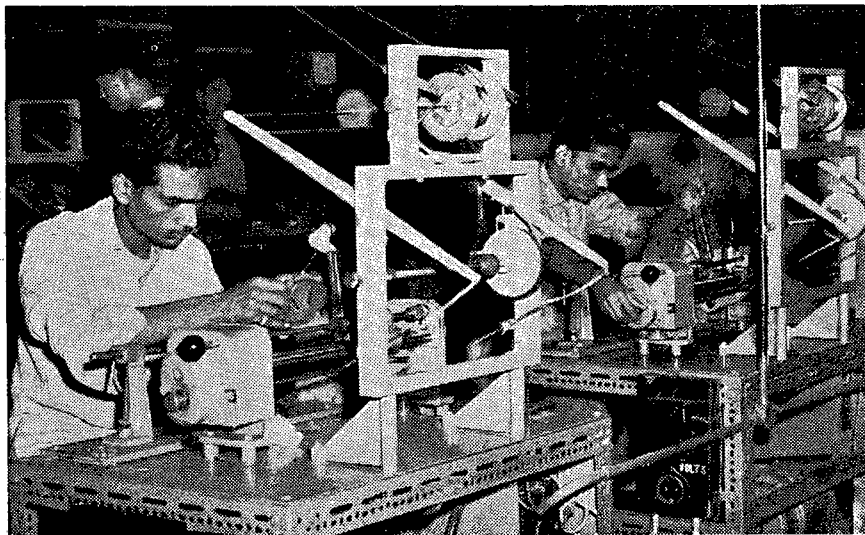
Progress in Manufacture of Power Equipment

Rs. 80 Crore Worth Every Year by 1970

INDIA has been leaning, till very recently, for all her requirements of heavy electrical equipment on foreign countries. At the end of the Third Plan, however, the country will be annually producing as much as Rs 35 crore worth of such equipment.

by the British firm, Messrs Associated Electrical Industries Ltd. On completion the project will produce electrical machinery and equipment worth Rs 12.5 crore annually.

TOWARDS the end of the Second Plan a Machinery Working Group studied the future requirements of



The generation and transmission of electricity is an industry which requires large amounts of capital. A large share of the investment goes into equipment—nearly 25 per cent in hydro-electric stations, and more than 50 per cent in thermal stations. In transmission schemes, the expenditure on equipment is about 30 per cent.

The progress towards self-sufficiency in this vital sphere began with the establishment of the Heavy Electricals Ltd., Bhopal, in 1957. Despite the acute scarcity of foreign exchange in the second half of the Second Plan, the Bhopal factory made commendable progress. This public sector project, which involves a capital investment of Rs 35.25 crore, is being technically assisted

Coil winding in the Bhopal Heavy Electricals

heavy electrical machinery and estimated that by 1970 Rs 80.65 crore worth of such machinery would be needed annually. To meet this huge demand, the Bhopal plant is being expanded in the coming years with the aim of making the project capable of producing machinery worth Rs 50 crore per annum by about 1970. The expansion will involve a further investment of Rs 27.8 crore.

RECENTLY the Government have entered into agreements with Soviet Russia for the setting up of a heavy electrical equipment factory at Ranipur near Hardwar (See *Yojana* October 15, 1961. The estimated capital outlay of this project will be Rs 35 to Rs 40 crore. On



completion of stage I of the project the value of annual production of of this plant will be Rs 25 crore.

Czechoslovakia is assisting India in the setting up of two other projects: a heavy electrical equipment factory at Ramachandrapuram near Hyderabad and a high pressure boiler factory at Tiruchirapalli in Madras State. The Czech-aided heavy electrical factory will cost about Rs 27 crore and the high pressure boiler factory Rs 15 crore. Each of these plants, when it completes its first stage, will produce annually Rs. 12 crore worth of equipment. Products from these three projects are likely to be available by the end of the Third Plan period.

Heavy Electricals Ltd., Bhopal, will be producing hydraulic turbines and generators, steam turbines and generators, generators for diesel sets, transformers, static capacitors, AC and DC circuit breakers, switch boards and control desks, AC and DC industrial motors, control gear, transformers and rectifiers, and other related items.

The Soviet-aided factory at Ranipur will produce mainly steam turbines and turbo-alternators, hydro-turbines and generators and large-sized motors. The Ramachandrapuram project with Czechoslovak assistance will turn out steam turbines and turbo-alternators and diesel engines.

The factory to be located at Tiruchirapalli will produce high pressure boilers required for installation in thermal power stations—along with high pressure valves and fittings and other allied equipment such as coal handling and ash handling equipment needed for the new power stations.

THE BIG HURRY IN THE WORLD OF ASTRONOMY



Suddenly, a star exploded. ■ Turning within its spiderwork of iron and steel, the 200 ft. wide saucer-shaped 'eye' of the radio telescope at Jodrell Bank looked deep into black space and recorded: the star had exploded FIVE MILLION YEARS AGO! ■ Peering so deep into space as to question time itself such radio telescopes are revealing to us the breathtaking, even frightening, dimensions of space and time, gathering astronomical data that are making space travel a fast hearing reality. ■ Into the fashioning of the 2000 ton Jodrell giant went the most advanced technique and knowledge of welding and gas cutting. ■ It is this precise knowledge of industrial gas and its diverse applications that Indian Oxygen affords Indian industry.

INDIAN OXYGEN LIMITED

IOC-47

1962-63
BUDGET

Closer to Third Plan Goals

MR DESAI ON "SOCIAL OBLIGATION THROUGH TAXES"

THE
BROAD
OBJECTIVES

- ★ *Augmenting Savings*
- ★ *Promoting Exports*
- ★ *Serving Social Justice*
- ★ *Enlarging Exchequer*

NEW LEVIES WILL BRING IN Rs 68.88 CRORE THIS YEAR

IN an endeavour to take the country closer to the goal of raising adequate resources for the Plan and to further the social ideals of the country, Mr Morarji Desai, Union Finance Minister, announced several tax changes in the Union Government's Budget for 1962-63.

These proposals, he told Lok Sabha on April 23, would bring in Rs 71.7 crore more in a full twelve-month period. Since only 342 days remain in the present financial year, the estimated increase in revenue would be Rs 68.88 crore.

With these changes in both direct and indirect levies, the deficit of Rs 60.78 crore forecast when Mr Desai last month presented the annual statement of receipts and expenditure will be just covered. The revenue in 1962-63 is now estimated at Rs 1,381.67 crore and the expenditure also at Rs 1,381.67 crore.

Revenue and capital budget taken together, the over-all deficit will now be Rs 89 crore which will be met by deficit financing.

The highlights of the Budget are:

Indian corporate tax increased by 5 per cent
Export earnings excluded from increase
Reduction in inter-corporate taxation
Highest slab of income and super taxes including sur-charges 87 per cent.
Tax rates on incomes below Rs 5,000 unchanged
Tax surcharge on salaries halved
Exemption limit on P.F. and insurance premia raised
Incidence of capital gains tax widened
Expenditure tax abolished
Increase in wealth tax rates on two highest slabs
Revised direct taxes yield additional Rs 27.2 crore
Excise duty revised on tobacco and cigarettes

Duty on cloth and yarn made more equitable
Duty relief on certain patent medicines and drugs
Increase in duty on loose tea: rebate on export
Nine new items brought under excise levy
Import duty on cars to be raised to 150 per cent
Specific duty on imported cars dropped
Reduction in export duty on tea

In a clear and persuasive speech Mr. Desai also set forth the objectives impelling him to make these changes. The main points he made were:

BIG PLAN, BIGGER NEEDS

For more than a decade now, economic policy in the country has been geared to the five-year plans. Our Third Plan, launched a year ago, aims at raising the national income in real terms by some 30 per cent over the five years. It also has to take us appreciably closer to the objective of a self-generating economy where development can be achieved at a satisfactory rate without external aid.

Even with this increase in the size of the Third Plan, we are unable to accommodate all the legitimate aspirations of our people for more schools and roads, for more power and drinking water, for more transport and employment opportunities. Many worthwhile and desirable projects, both public and private, cannot be taken up because we could not make provision for them in our Plan for lack of resources. It is, therefore, of the greatest importance that we should do everything possible to mobilise and harness the resources which will help us to reach the goals that we, as a nation, have set for ourselves.

The most critical shortage which we face and which operates as a major limiting factor in everything that we do is of external resources. Our foreign exchange reserves have declined to very low levels and the need to conserve foreign exchange by the strictest watch on imports and by limiting our demands is greater than ever today.

Beyond a point, however, economy in imports of essential requirements becomes self-defeating in that it inhibits domestic

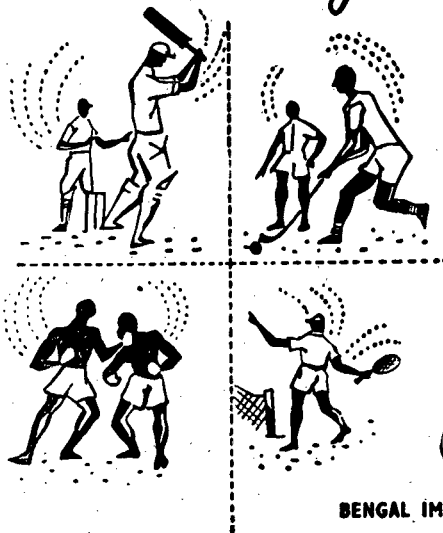
(Continued on page 17)

*Towards
Health and
Energy*

VINO-MALT,
a specially prepared
recuperative tonic, provides
those extra minerals and nutrients
so necessary for promotion of health
and vigour. Pleasant to take, Vino-
malt stimulates appetite, aids digestion
and tones up the system.

VINO-MALT

The Sparkling Tonic



BENGAL IMMUNITY CO., LTD.
CALCUTTA-13

HAMARA HINDUSTAN

"Where Things Go Wrong, And Being Wrong Get Right"

ON most people's reading lists, travel books figure immediately after thrillers and chillers. What is demanded of such books is that they should first of all be diverting. The more the punch the better. Prejudice or a private view, as long as it titillates, is more important than the thing called objectivity.

C. Ross Smith's *A Time In India* (Macdonald, London) is one of the most entertaining of the recent books on India, scoring in colour, humour, raciness and downright error.

Ross and his wife Lou were six-month tourists in India. Those who take a quick look at a country are in a position to record a surprise on every page. The theme song of Mr Smith is that India is a country where "things go wrong and, being wrong, become right". He finds the people living by a completely different set of co-ordinates, but also discovers they are as human as people elsewhere. Now and then he learnedly digresses into philosophy—on the nature and time and space, the meaning of things etc. But mostly he is content to make paradoxes—which often have much insight—as these excerpts show:

DELHI: Delhi is no place for any capital city. It is difficult for the western tourist to take it seriously. New Delhi is bastard Western.

THE TAJ: What architectural theorem has been regarded, or disregarded, to create the unnerving illusion that the Taj Mahal floats, I don't know. Nevertheless the illusion works...Most photographs miss the point because the Taj can't be taken out of physical context.

THE INDIAN CROW: Only in India does the crow genuinely thrive, genuinely rule; only in India is he more than a bird.

DOGS: Most Hindus are terrified of even the smallest dogs. Starved dogs naturally become dangerously savage and, as such, terrify Indians. Terrified, Indians naturally beat and starve their dogs further.

CALCUTTA: Numerically, there are few cities more populous than Calcutta. Qualitatively there are none...There is a feeling of universal suffocation, of unnatural behemoth potential.

BENGALIS: Pass a Bengali on a Calcutta street, and he

will look at you as though he were walking past a mirror and were abstractly noticing his own reflection going the other way.

MADRASIS: A Madrasi does not look you in the eye, he looks at your eye...when a Madrasi talks, he runs as many of his words together as possible, which makes correct breathing a fine art.

INDIAN HEADS: Indians carry almost anything, no matter how small or large, on their heads. If the object in question is too heavy for one head, then more heads are recruited... If the object is too light for one head, a single bottle, small packages without weight, then it is carried on the end of a piece of string in gentle swinging rhythm, suspended between the motionless (yet moving) hand and the moving (yet motionless) ground. Thus an Indian clearly enjoys the pleasures of physical balance as well as mental, the equality of weight perfectly distributed on or about a living fulcrum, himself.

EDUCATION: Indian's notorious diversity of language prevents any given university from drawing on all parts of the country for a body of academic resources. The general level of Indian literacy and pre-university education is so pitifully unable to prepare students for higher education, that university entrance examinations have to be correspondingly low in order to make higher education under the new India available to as many as possible.

CONVERSATION: (in the great Imambara at Lucknow between the author, his wife and Mr Dhadda, a 'graduate student' of Lucknow University): I turned to Lou: "It's a Greene decor."

"It is!"

"What is green?" Mr Dhadda frowned.

"The decor: the Christmas bells, the furnishings, the whole room."

"I see nothing green. What is green?"

Lou turned to me: "He means the colour."

"No, no—the author, Graham Greene," I said.

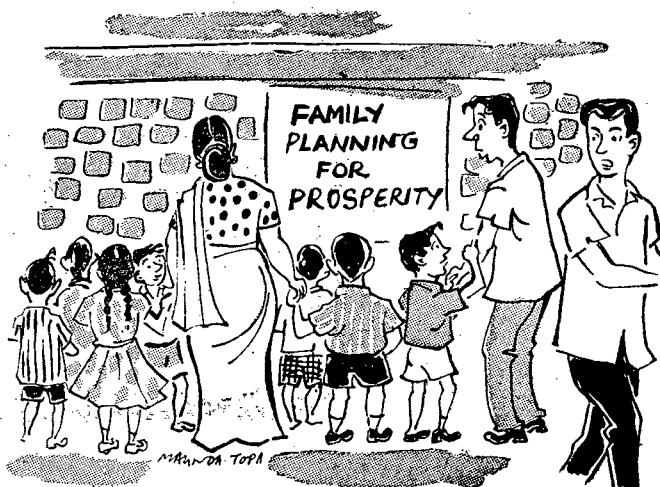
"He has been to Lucknow?"

It took us some little time to get things properly straightened.

T.S.N.

SHAMBU

Malinda Topa



"Papa, what is the meaning of Family Planning?"

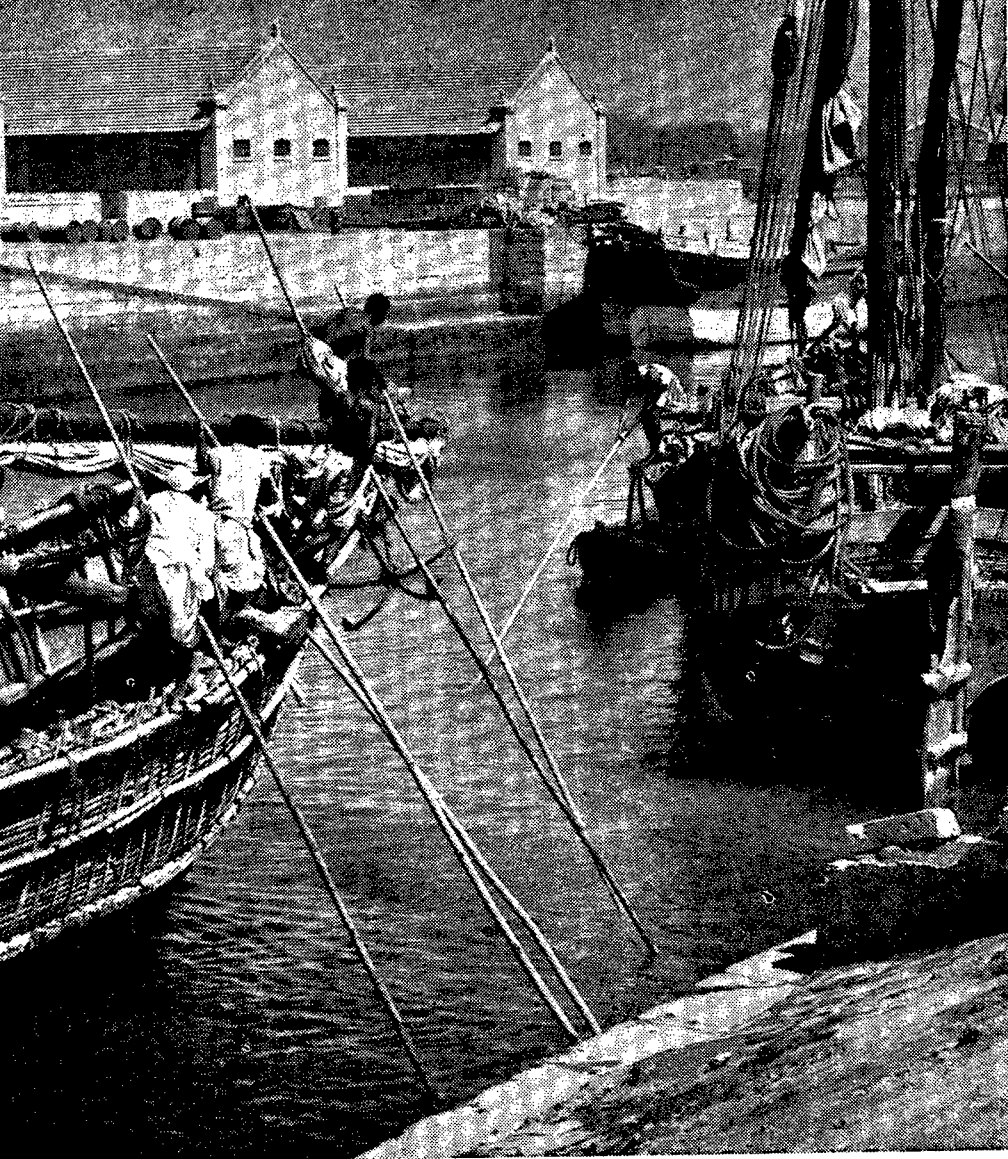
Harbour Famous

In 1950-51 the cargo amounted to 1,08,600 tons, which rose to 1,70,000 tons in 1958-59, of which foreign trade amounted to 29,800 tons or 17.4 per cent.

Veraval's imports include building materials, coconut, cotton seed, food grains, kerosene and lubricating oil and timber. Fish, raw cotton, oil cake, ghee, lime and limestone, groundnut oil, castor and groundnut seeds are among the commodities exported.

Several industries are now being set up near Veraval of which a rayon factory, a cotton seed factory with a rated capacity of 100 tons, and a paper mill. In view of these expanding industries it is expected to increase to 3 lakh tons in the Third Plan.

The port is now equipped with a capacity of 800 tons, two dry docks, and to meet future demand, recommending four more electric cranes and a tug for towing the lighters to the sidings will also be built.

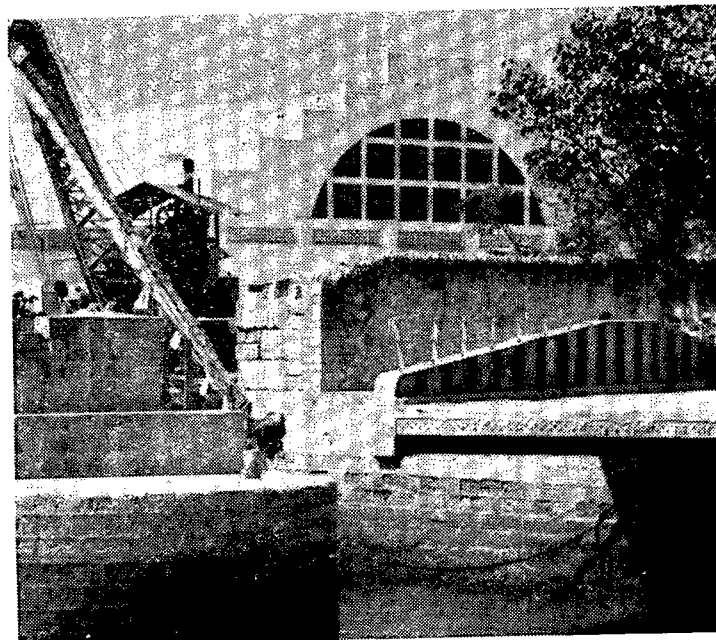


Top and inset: Countrycraft coming in with cargo. Bottom: Gate (which is also a bridge) which controls the boat movement.

THE Plan takes equal care of the big, the small and the middle. The port development programme is no exception, for we shall be enlarging the capacity of our major, intermediate and minor ports. The major ports are six—Bombay, Calcutta, Madras, Vishakapatnam, Kandla and Cochin. The intermediate ports are many more in number, and their development has been guided by the report made by a special committee. One of these ports is Veraval, in Gujarat.

Veraval is near the historic temple city of Somnath, in Kathiawar, the mango-shaped portion of Gujarat jutting out into the Arabian Sea. It is 62 miles south of Porbandar, another intermediate port.

Veraval has long been an important fishing centre and is well-known for boat-building and small coastal and foreign trade. Even sixty years ago, as stated by the Imperial Gazetteer, the port had a trade of Rs 6.8 lakh—imports of Rs 3 lakh, that of exports being Rs. 3.8 lakh.



near Temple



...ing plant and a small cement
...ons per day may be mentioned.
...es the annual traffic at Veraval
...ns per year by the end of the

...three tugs, lighters of a total
...and six cranes. Because of the
...ave been made for requisition-
...o 3 tons capacity and a 350 H.P.
...from the anchorage. More rail



QUOTATION BOX

The next Cabinet which would come after five years would undoubtedly be of comparatively younger people. A new leadership is emerging all over the country. This new leadership will take over the the reins of the nation's destiny in another five years. The average age of a Cabinet Minister is 60 today. It will go down at least by 15 years in the next Cabinet.

—A speech by Mr S.K. Patil reported in 'The Hindu'.

There are a number of myths about why the underdeveloped nations are underdeveloped..... The most pernicious myth is that of the superiority of the white-skinned peoples..... Another myth concerns colonialism. Parallell with the myth about colonialism is another myth: that independence, in and of itself, guarantees development. History contradicts this belief. Some long-independent countries are among the least developed, and independence can, at the beginning, add to the problems of development.

—Mr Paul G. Hoffman, Managing Director, U.N. Special Fund.

I am not guilty of exaggeration when I say that some film artists are better known to the public than even Ministers themselves.

—Dr Radhakrishnan

Preaching morals is not the function of law. If you pass a law which cannot be enforced, you will bring about disrespect for law among the people.

—Mr M. C. Chagla

Growing evidence suggests that China is moving ahead far more rapidly than India into economic development. This is the evidence even after liberal correction for cheating by Peking on its official figures. The Chinese Communists have forced agriculture ahead by a series of terrible power drives, each of which overreached itself and had to break up in confusion. The human cost was nightmarish, although not unknown in Chinese history. But each time the base was enlarged..... A careful calculation by the French journalist Tibor Mende, recently returned from China, indicates that China's gross national product is increasing at three times the rate of India's.

—An editorial in the "Christian Science Monitor"

Gambling or prostitution can never be as big a fact of Indian life as the cinema..... The majority of film-goers are addicts and the industry, without being aware of it, has developed into a gang of dope peddlers.

—Mr Jyotirmoy Datta in "Quest"

The country is progressing faster than many people imagine. It would not be surprising if the number of shareholders of limited companies went up to about a crore in the next few years from the present figure of about 40 lakhs.

—Mr. G. D. Birla

An attitude has developed among the educated (in India) to regard the politician as a rogue and a scoundrel, to condemn him roundly, and then accept all that he does.

—Dr H. R. Pasricha writing on "Our Stuporous Society" "Quest"

The first chief justice of this court, Sir Mathew Sausse, known as Sausse the Silent, was a model of Judicial dignity and reserve. He did not attend any social functions and it was said he never read any newspapers lest his judgements be affected by what he heard or read outside the court.

—Chief Justice Chainani speaking at the Centenary of the Bombay High Court

Why do we tolerate public servants who assume that utility services are not a citizen's right but a benefit conferred by a benign government?

—From "Delhi is Holding the 'Country Back'" by S.M. in "The Hindustan Times"

Mr C. D. Deshmukh today gave glimpses of the India of 1981—a brighter, happier country. Every second man would have a bicycle (as against every family owning a car in the U.S. as present). Milk production would have doubled. Per capita income would have reached Rs. 792. India would then require 600,000 engineering graduates as against 58,000 now, 220,000 doctors as against 80,000 and four million teachers.

—From report in "The Hindustan Times"

It is no more naya paisa; it should be called just paisa. If at any time reference is to be made to the old paisa (1/64 of a rupee) it may be called purana paisa.

—From letter in "The Hindustan Times"

What is required is a league for the protection of Delhi parks and monuments—protection from bureaucracy and the latter-day practitioners of Victorian Gothic. Unless one is formed quickly much of the capital will become unrecognisable in a few years.

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

SIDE TRACK

For Note-Makers

THUMBING through a book with the scholarly title of "Economic Research for Small Industry Development" we came across this on page 209:

SPECIFIC WAYS IN WHICH TO IMPROVE YOUR REPORT WRITING

1. Use words and sentences that talk plainly, briefly, naturally. Say what you really mean. In most cases the effective way to clear up your meaning is to take out words, sentences, or even paragraphs.
2. Avoid "deadheads" that take up space without adding to meaning. A word serves better than a phrase :

For	Use
along the lines of	like
as to	about
for the purpose of	for
from the point of view	of, for
in favour of	for, to
in order to	to
in accordance with	by, under
in case	if
in the nature of	like
in the neighbourhood of	about
on the grounds that	since, because
prior to	before
with a view to	to

Omit the words italicised in the following sentences:

"Bad weather *conditions* prevented our take-off."

"The adverse effect of the personnel *'hump' situation on the matter of morale* was considered."

We first asked ourselves what this had to do with small industry development. Then we remembered that note-writing is a small industry —perhaps the biggest small industry in our Government.

Anyway the advice is full of good sense, and we commend the suggestions to officers of all classes.

Missing the Bus

ATHERMAL power plant was inaugurated on April 20 at Bandel near Calcutta. It will do much to ease the power problem of West Bengal industries.

A newspaper story outlines why this important function failed to get its due of publicity. Thirty reporters and photographers were

put on a bus to travel the 40 miles to Bandel to write about and take pictures of the occasion. On the way they were caught up in a severe hailstorm. The rain soon stopped and the bus resumed the journey, but it took a wrong road, since neither the conducting officer nor any of the pressmen knew where the power-house had come up. The mistake was found out, and the bus had to be reversed. But while this was being done it slipped down a slushy slope. Many hours later the press gang limped back home tired and mud-spattered and in chagrin at not being able to play the eyes and ears of the people.

Conserving An Art

"**K**ALAKSHEPAM" means spending time, but in the South it is the name given to form of religious entertainment.

It is an art with a long tradition. Its setting is the lamp-lit courtyard of a temple or a Rama Mandiram. The air is full of the whiff of jasmine and incense-sticks. The performer is a practised story-teller, with an amazing stock of words and anecdotes. He is also a musician and a mimic if not an actor. The themes he chooses are from the Puranas or the epics. If it is Mayuradhwaja's story, a mere three hours might suffice. But the *Ayodhya Kanda* is good for four evenings. Cymbals in hand he sings and narrates and digresses from the *katha* into numerous *upakathas*. He is sarcastic, sentimental, poetic and platitudinous by turns. And the jewels on his fingers and on his ear-lobes shine and flicker. Among the audience old women lean against pillars with a little pile of cotton in front which is converted into wicks. Middle-aged matrons sit surrounded by their brood of daughters. With music and story and its many changes of mood and tone, a 'harikatha' is like a Madras mythological film without the flitting shadows. Performers with a reputation are known even to hold the attention of brilliantine-using college boys.

The art, like so many other tradi-



IGNORAMAN

Wants to Know

Why Our Students,

Who Are Anti-Test

Yet Pro-test

tional arts, is in its decline. These days musicians are becoming secular and 'purohits' sons are becoming atomic physicists. It is no longer regarded as part of a child's training to know the name of Hidimba's son. With the religious base gone, the 'Kalakshepam' has to thrive only on aesthetic appeal. Whether it can do so is doubtful. The Madras Government is planning to set up a school in Tanjore for training 'Harikatha Vidwans'. It is to be hoped the school will conserve the art.

Man And The Beast

Something like an Androcles story has been enacted in Madhya Pradesh. A farmer was collecting *mahua* flowers in a forest when a tiger pounced upon him from behind. Mehtar Lodhi knew that battle was useless. Instead, he folded his hands and prayed for mercy. Faith, which moves mountains, must have moved the tiger's heart. He walked away evidently wrapped in the contemplation of his own goodness. And Mehtar Lodhi went home with only a torn calf-muscle.

Less Reliance on Foreign Aid

(Continued from page 11)

production, raises prices, and in consequence, leads to a fall in exports. Without belittling in any way the value of the assistance from friendly countries and institutions, we must recognise that ultimately it is only through increasing our exports that we can find the external resources for our development, and for repaying the loans and credits which we receive. I have proposed some fiscal measures to help our exports.

WE MUST SAVE SAVE SAVE

A degree of control over domestic consumption is implicit in our effort to step up investment. *In the ultimate analysis, it is not money, but men and materials which pay for a Plan.* The resources we need may be measured and expressed in terms of money, but they represent in reality the extent to which we can employ current production for increasing our productive capacity in the future rather than for meeting the needs of current consumption.

Thus, our effort to provide resources for the Plan, the exports to earn the foreign exchange and the saving to provide the investment, inevitably lead to a measure of restraint in current consumption. We can achieve it somewhat painlessly through voluntary savings. We can do it with a certain sense of social obligation through taxes. Or we can bring it about through an inflationary rise in prices which hurts the common man and benefits only the speculators and profiteers.

All savings strengthen our Plan, whether they are large or small, whether they are put in banks, or in insurance policies, or in Government securities, or in our Small Savings Schemes, or in Provident Funds. If the volume of savings is adequate, the task of ensuring that they are allocated between different sectors and fields of development according to the priorities in our Plan should not be too difficult.

PRIVATE SECTOR & THE PEOPLE

It seems to me desirable that industry in the private sector should rely less on bank finance. I say this not because I want to slow down the development of the private sector which is as much a part of our Plan as the public sector, but because private industry has available to it another source of finance which has, in the recent past, become exceedingly important. I refer to finance in the shape of equity capital.

The public at large, even people with modest incomes, are now investing in shares. This is a healthy sign which we must encourage. In the floatation of new companies, there should be the maximum opportunity for public participation. It seems also desirable that new companies should aim at raising a larger proportion of the capital they need through equity shares, rather than by loans, as they did in the past. *The pursuit of these policies will mean that the ownership of private industry will become more wide-based and the concentration of economic power will be reduced.*

PUBLIC SECTOR & EFFICIENCY

The Third Plan lays considerable emphasis on realising adequate surpluses from public enterprises and envisages a contribution of Rs 450 crore from this source in addition to the sum of Rs 100 crore to be raised by the Railways. *We must get an adequate return on the vast amount of capital we are investing in our railways, power plants, irrigation works, fertiliser plants, steel plants and the like.* By making past investments pay for future investments, the rate of economic growth can be accelerated. This is the experience of all countries irrespective of whether they rely mainly on the public or the private sector for development. The private sector in India is already relying, to a considerable extent, on the

ploughing back of the profits and savings in the corporate sector for its expansion. The public sector must do the same if it is to play an increasing role in the development of our economy.

This means not only efficient and economical operation of public sector plants, but also a policy of charging a proper fee or price for the services and products supplied by the public sector. Betterment levies, water rates, electricity charges, railway freights and the like cannot be determined on the philosophy of 'no profit and no loss', but on the consideration that all these services and facilities need to be enlarged and *their users must pay more for these things today in order that there may be plenty of them tomorrow and the day after.* Our price policy must ensure that investment in key and basic industries earns a good enough return to make higher investment possible.

Situations may, of course, arise in which a certain industry or a service needs to be subsidised. But even subsidies can only be given out of surpluses arising somewhere else. Whenever we accept the need for a subsidy at any one place, we should remember that it will call for bigger surpluses elsewhere.

CHANGING ROLE OF TAXES

I come now to my taxation proposals (to meet the revenue deficit of Rs 63.46 crore indicated in the Budget presented in March, now revised to Rs 60.78 crore). Before I refer to them, may I repeat what I have stressed from time to time—that taxation policy no longer serves the sole objective of raising resources for the exchequer. *In a planned economy, it must also serve the wider objectives of augmenting savings, promoting exports, of bringing about a better balance between the supply and demand for individual commodities and indeed of social justice in distributing the rewards and sacrifices implicit in planned progress.*

Further, all these objectives have to be reconciled with an eye not only to the immediate future, but also to the long-term perspective we have kept before ourselves. No less important a consideration is that the administration of the tax laws should cause the minimum of vexation both to the tax payer and to the tax collector and one thing that should not be taxed is people's patience.

THE POOR ARE NOT HIT

Both direct and indirect taxation play a part in my proposals. This question of the respective roles of direct and indirect taxation is being raised on a number of occasions. There seems to be a feeling in some quarters that whereas direct taxes are progressive indirect taxes are regressive in the sense that their incidence falls more heavily on the poor than on the rich. I am afraid this view that indirect taxes are regressive is not correct in our conditions.

Whether indirect taxes hit the poor more than the rich or vice versa depends upon the kind of commodities that are subjected to indirect taxes and the rates at which they are taxed. *No one would contend that excise duties on automobiles, refrigerators and air-conditioners, for example, hit the poor.* Quite a number of items in our range of indirect taxes are such that they impinge more heavily on the upper middle and middle classes.

We had this whole question analysed last year and our study shows that indirect taxes in India have been progressive in their incidence. That is to say, the higher the total expenditure of a family on an average, the higher the proportion of the total expenditure it pays in indirect taxes. Not only that, but the degree of progression also was shown to have increased as more and more articles not entering appreciably in common man's consumption were subjected to excise duty.

In a country like India, the income-tax cannot be a mass tax. At the same time, we have to tax at least to some extent even those

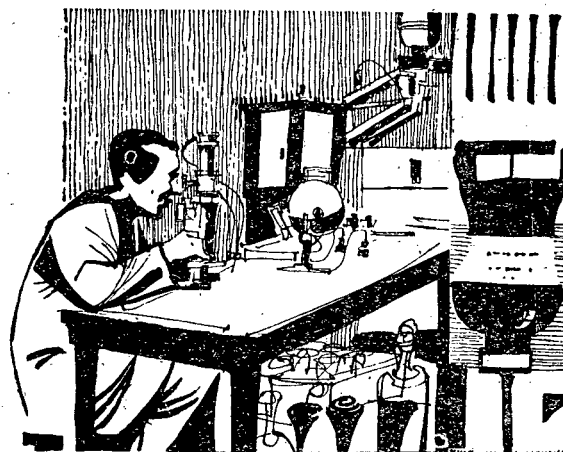
(Continued on page 19)

3 in one in drug industry

Research, Clinical Study and Production are the three units, which when co-ordinated, become the spearhead in a drug industry. Bengal Immunity Co. Ltd. the premier institution for manufacture of biological and pharmaceutical products in India has harnessed and co-ordinated these three units into one.

Bengal Immunity products, manufactured for the last forty years to the strictest quality standards, are tested at every stage before marketing and can claim implicit confidence of the medical profession throughout India and abroad.

THE BENGAL IMMUNITY
COMPANY LIMITED
CALCUTTA 13



(Continued from page 17)

who are not covered by income-tax, for it would be equally impossible to meet all our requirements for both Plan and non-Plan expenditures without mobilising a part of the incomes that accrue to the poorer sections of the community. Undoubtedly, the richer sections must carry an increasingly larger share of taxation and poorer sections must benefit progressively more through development. That is part of our concept of a Socialist State.

I am aware of the widespread desire in this House and outside that the imposition and enhancement of excise duties should not lead to a general increase in consumer prices. In some cases, duties are imposed as there is a large margin of profit and it is considered desirable to reduce that margin. In others, for example, as in the case of matches this year, the duty is meant to take away the unintended margins of middlemen. In these cases, there should be no increase in the price to the consumer. On the other hand in a case like that of patent and proprietary medicines, where it is proposed to reduce the duty, there should be a reduction in prices. In the case of cloth, a part of the increase in the rates of duty of yarn and processed fabrics can as well be absorbed by the industry. The duty on coarse and lower medium fabrics has been particularly so adjusted that there should be no increase in the price of such cloth.

As regards the impact of these duties on exports, I should like to mention that it is proposed to give a consolidated refund of excise duties paid on the materials and intermediates used in the process of manufacture. There is, therefore, no reason why excise duties should impinge on export costs.

OVER-ALL DEFICIT Rs. 89 CRORE

The taxation proposals outlined above would yield a total revenue of Rs 68.88 crore during 1962-63. Of this, a sum of Rs 60.80 crore will accrue to the Centre and the balance of Rs 8.08 crore to the States as their share as a result of the recommendations of the Finance Commission accepted by Government. This share will go on increasing from year to year. The manner in which these gains to the States should be adjusted in keeping with the overall requirements of the Centre and the States for fulfilling their plans is under consideration. The Planning Commission intends to review shortly the financial position of the States during the current year in consultation with them.

WHAT THEY SAY

The Statesman : Multipurpose Budget... On balance the Budget is undoubtedly anti-inflationary; it offers additional proof of the country's determination to impose heavy sacrifice on the people for the sake of development, very necessary when seeking large-scale foreign aid.

The Hindustan Times : Anti-capitalist... If his budget had been merely anti-capitalist, few tears would be shed. But since it is anti-capital as well, there is cause for national concern.....Mr Desai cannot claim that he has improved the climate for saving and investment. On the contrary he has most probably done it much permanent damage and has thereby slowed down the rate of growth of the country.....It is unfortunate that he has failed to show in the direct tax

field the admirable discretion and judgement he has displayed in choosing his indirect taxes (in which) there is not even a single new levy which seriously burdens the so-called 'common man'.

The Times of India : The Budget still lacks a dynamic fiscal policy for exports.

The Indian Express : Mr Desai has discarded the flamboyant face of socialistic taxation without sacrificing the essential of socialistic aims.

The Financial Express : A Balanced Bag.

The Economic Times : No Bold Lead: Adds to the burdens on capital formation at one end and gives a fresh twist to the inflationary spiral on the other.

The National Herald : Mr Desai seems to proceed on the assumption that in judging the burden borne by the tax-

As a result of the tax proposals I have placed before this House there will be a net accretion of Rs 60.80 crore to the Centre during 1962-63. This would completely wipe out the revenue deficit. The over-all deficit will consequently be reduced from Rs 150 crore to Rs 89 crore and will be met by the expansion of Treasury Bills.

STATES MUST DO BETTER

I cannot say that I am happy with the gap which still remains. It is my hope that as in the past with increased incomes and production and with a tighter check on tax evasion our taxes will bring in more than we are able to foresee at present.

In this context, I would emphasise that we can no longer go along with the outmoded concept of taxation being limited to what is needed to cover the revenue component of the budget. In the context of the major development programmes on which the public sector is engaged and having regard to the possibilities and limitations of borrowing from the market, it is essential that the revenue budget should provide a sizable surplus to sustain a part of the capital budget.

In fact during the Second Five Year Plan we achieved a revenue surplus of the order of Rs 220 crore without which the upward pull on the price level would have been far greater. In putting forward any tax proposals, therefore, I have paid greater heed to the overall target of taxation for the Third Plan which as the House is aware is Rs 1,100 crore. The additional taxation levied at the Centre last year should yield a total of about Rs 450 crore over the five-year period. The taxes which I have now proposed will take us yet closer to our goal of raising adequate resources for our Plan. It is a matter of concern to me that progress in regard to additional taxation by the States has been slow and in 1961-62 the State Budgets provided for additional taxation with a five-year yield of about Rs 100 crore only as against the target of Rs 610 crore set in the Plan. I would earnestly request all State Governments to ensure that this shortfall is made up with speed and vigour.

Higher levels of taxation no doubt impose a burden of sacrifice on our people. The point to remember is that there are only two alternatives to such taxation—inflation or stagnation. Without the requisite tax efforts we would have to face either an upsurge of prices which would impose a much bigger and much less equitable burden on the community, or a prolongation of our poverty due to a slowing down of our development. It is against this background that I would ask the House to consider and support my budget proposals.

payer, central taxation alone need be taken into account.

The Mail : Casting his net far and wide, Mr Morarji Desai has yet been able to drag in only the usual fish.

Mr A. K. Gopalan (Communist M.P.) : Taxes, tears and tightening of belts.

Mr K.P.R. Shroff, President, Bombay Stock Exchange : The Finance Minister has struck the golden mean between too much taxation and too much deficit financing.

Capital : The needs of the five year plans, and of defence, are rising and they supervene on those of a burgeoning bureaucracy. Somebody has to be milked, so the task of the Finance Minister is to do the maximum milking..... Should the Government be so kind as to design to control its expenditure, the year will end with a substantial revenue surplus. The tax proposals are likely to prove a lot stiffer than they look.....One step forward, two steps back—such seems to be the reigning dictum of India's fiscal policy.

What Is Taxed And Why

THE TWO SIDES

The taxes proposed by Mr Morarji Desai (and his reasons for doing so) are given here :

DIRECT TAXES

Net effect—increase of Rs. 27.2 crore in a full year.

COMPANY TAXES : The rate of tax on Indian companies to be increased from 45 per cent to 50 per cent; the rate of tax on foreign companies to continue at 63 per cent generally. For this purpose, the rate of income-tax applicable to all companies being raised from 20 per cent to 25 per cent, supertax rates being suitably adjusted. Earnings from exports to be excluded from this increase, "because we want to give every inducement to trade and industry to sell abroad".

Some reduction to be made in inter-corporate taxation. *Additional revenue from all these changes—Rs 10.25 crore.*

EXPENSE ACCOUNTS : Entertainment expenses scheduled to be tightened, "to restrain conspicuous entertainment at company expense". No additional revenue, however.

PERSONAL TAXATION : Richer sections to pay more, but room for some simplification and relief at particular points. "Income-tax payers form a relatively well-to-do section of the society. In a population of 443 millions, they are under a million and thus are a microscopic group. It is only natural that they should bear a share of the tax burden in keeping with this privileged position".

In the revised structure, the rate at the highest slab to be 72.5 per cent exclusive of surcharges. Rate on incomes below Rs. 5,000 to remain unchanged. Intermediate slabs suitably adjusted to secure an even increase. To afford relief to salaried classes, surcharge on income-tax on salaries, including pensions, reduced from 5 per cent to 2.5 per cent leaving other surcharges unchanged. Rate on income at highest slab inclusive of surcharges to be 87 per cent. However, exemption limit for provident fund contributions and insurance premiums raised to Rs. 10,000.

Some revision also made in the structure of rates of tax on registered firms.

Expected additional revenue—a little over Rs. 15 crore annually.

CAPITAL GAINS : "In an equitable system of taxation, gains realised during a short period and those not so realised require to be treated differently". Therefore gains resulting from disposal of capital assets within one year from the date of acquisition to be made subject to income-tax and super-tax like other ordinary incomes. Long-term capital gains of companies to continue to be taxed at 30 per cent.

Extra revenue—Rs 50 lakh.

EXPENDITURE TAX : Abolished from the current year. "When it was introduced in 1957, it was realised that it had no backing of historical experience. It was, however, hoped that the tax would be a

potent instrument for restraining ostentatious expenditure and for promoting savings.....It is considered best not to continue a measure which, as a source of economic restraint, has been ineffective and as a source of revenue, unattractive".

Effect—reduction of Rs 70 lakh.
WEALTH TAX : Increased by 0.25 per cent and 0.5 per cent on the two highest slabs; slab structure revised a little; some exemptions discontinued.

Additional revenue—Rs 2 crore per annum.

INDIRECT TAXES

UNION EXCISE :

"Only natural that a major share should come from the Union Excise duties". Additional revenue from changes and new levies—Rs 36.16 crore in a full year.

Tobacco : Rates of excise duty on un-manufactured tobacco and cigarettes raised. *Yield—Rs. 5.28 crore in full year.*

Cotton Cloth Yarn : Present structure not equitable. Yarn rates being revised in such a way as to achieve a slight progression in incidence of tax according to quality of cloth. Present duty on coarse yarn to be maintained at 10 nP. Differential of 10 nP. per kilogram in favour of yarn issued in hanks also to continue. Duty on processing of cloth to be stepped up. "Operations like mercerising, shrink proofing and organdie processing substantially enhance the quality as compared to bleaching, dyeing and printing and should attract relatively higher rates of duty".

"To secure that the common man has not to make anything more than a marginal adjustment in his cloth bill", duty on grey unbleached cotton fabrics to be reduced. Units with 50 or more powerlooms to be placed on same footing as composite mills.

Result of changes—additional revenue of Rs 12.1 crore.

Other textiles : Duty on unprocessed woollen, rayon and art silk fabrics to be converted to a duty on yarn and processing, so as to release the powerlooms from excise control. Loss in revenue to be made good partly by increase in duty on yarn and partly by duty on processed fabrics.

Effect—Loss of Rs 50 lakh in revenue from excise duty but net increase in revenue of Rs 1.16 crore on account of increased countervailing duty on yarn.

Drugs : Definition of patent and proprietary medicines to be changed. Incidence of tax to be reduced from 10 to 7.5 per cent.

(In crore of rupees)

	Revised 1961-62	Budget 1962-63
Revenue	1,079.11	1,320.87
Expenditure	1,045.15 Plus 33.96	Plus 60.80 (Net) 1,381.65 Minus 60.78 Plus 60.80 (tax proposals)

Certain highly essential drugs to be totally exempt.

Match-boxes : Actual price to retail dealer at present so works out that in several areas he cannot sell at 5 nP a box without incurring a loss, whereas at 6 nP a box he makes excessive profit. Therefore, the duty now revised so as to wipe out this unintended margin. Statutory rates to remain unchanged.

Yield from these two changes—Rs. 1.99 crore per annum.

Tea : To encourage export, duty on loose tea to be increased by 5 to 10 naye paise per kilogram, but rebate of 15 naye paise per kilogram to be given on its export.

Others : Tariff item of asphalt and bitumen to be altered so as to include coal-tar. Coal-tar burnt in furnaces or plants producing it to be exempted. Procedure for duty on copper and other alloys to be simplified for convenience of smaller manufacturers. Duty on aluminium foil to be increased by Rs 100 per tonne in order to discourage internal consumption.

These changes in the existing excise duties will give a revenue of Rs 20.74 crore in a full year.

NEW ITEMS : Excise duty to be levied on certain new items: *Jute manufactures* (to restrict internal consumption and to encourage exports): yield of Rs 3.12 crore. *Iron and steel:* ad valorem duty of 5 to 7.5 per cent on certain products—net revenue Rs 6 crore. *Electric cables and wires:* Levy of 5 to 15 per cent yielding Rs 2.1 crore. *Acids and gases:* a duty to yield Rs 1.64 crore. *Plywood:* duty of 10 to 15 per cent. *Asbestos cement products:* duty of 10 per cent. *Tread rubber and latex foam sponge:* duty of 20 per cent. *Gramophone, gramophone parts and accessories and gramophone records:* duties varying from 15 to 30 per cent. These items will yield a revenue of Rs 2.30 crore. *Mineral oil:* Levy of 5 per cent to be added on products not otherwise specified (Rs 26 lakh). Total revenue from fresh levies Rs 15.42 crore in full year.

IMPORT DUTIES:

Increase of 5 per cent on art silk yarn. Also increase of 5 per cent on iron and steel (structures, fittings for pipes and tubes, tin plates, steel ingots and manufactures not otherwise specified). *Stainless steel plates, sheets, rods and bars—*25 per cent import duty yielding Rs 80 lakh. *Copra:* some changes, because, as compared

to Indian copra, there is a substantial price advantage in imported copra. *Certain types of tools*, excluding machine tools and agricultural implements—duty increased from 35 per cent to 50 per cent. Revenue from these two changes—Rs 1.89 crore in full year. Duties on a few items to be rationalised, yielding a small revenue of Rs 7 lakh. *Cars*: import duty raised from 100 to 150 per cent. Specific duty of Rs 6,000 being done away with, “so as not to discourage import of small or used cars in genuine cases”. Proposed increase in duty will make import of cars a little less attractive. Revenue Rs 25 lakh.

EXPORT DUTIES:

Tea: Substantial reduction, from 44 naye paise to 25 naye paise per kilogram, leading to loss of revenue of Rs 4.1 crore. “Taken with the proposed refund of excise duty of 15 naye paise per kilogram, this should provide a substantial incentive for export of tea”.

Proposals on indirect taxes will bring in Rs 44.5 crore more in full year. In 1962-63, their effect will, however, be for 342 days, that is to the extent of 93.7 per cent.

These changes in direct and indirect taxation taken together will bring in a revenue of Rs 71.7 crore in a full year, of which Rs 44.5 crore will be from indirect taxation and Rs 27.2 crore from direct taxation.

REVENUE BUDGET, 1962-63

How Money Comes in and on What It Is Spent

(The figures are in lakhs of rupees)

Customs	1,99,60 +7,80*	Collection of Taxes: Duties and other Principal Revenues	22,58
Union Excise Duties	4,92,28 +30,80*	Debt Services	2,47,90
Corporation Tax	1,68,00 +10,50*	Administrative Services	70,31
Taxes on Incomes	58,30 +10,40*	Social and Developmental Services	1,63,24
Estate Duty	12	Multipurpose River Schemes, etc.	1,57
Taxes on Wealth	7,00 +2,00*	Public Works, etc.	21,88
Expenditure Tax	80 (—) 70*	Transport & Communi- cations	8,75
Gift Tax	85	Currency & Mint	20,23
Other Heads	15,83	Miscellaneous:	
Debt Services	1,67,51	Pensions	10,47
Administrative Services	6,11	Expenditure on Displaced Persons	9,60
Social and Developmental Services	35,29	Other Expenditure	89,38
Multipurpose River Schemes, etc.	36	Contributions & Miscel- laneous adjustments:	
Public Works, etc.	4,02	Grants to States	2,13,54
Transport & Communica- tions	6,30	States Share of Union Excise Duties	1,14,36
Currency & Mint	69,53	Other Expenditure	3,07
Miscellaneous	24,56	Extraordinary items	41,40
Contributions and miscellaneous adjustments	24,41	Defence Services (Net)	3,43,37
Extraordinary items	40,00		
Total Revenue	13,20,87 +60,80*	Total Expenditure	13,81,65
		Surplus (+)	—60,78
		Deficit (—)	+60,80*

*Effect of budget proposals

the fortnight in yojana bhavan

Some events within the Planning Commission during the fortnight ending April 28.

A NOTED visitor to the Planning Commission was Mr Lee Kuan Yew, Prime Minister of Singapore. He met Mr Gulzarilal Nanda, the Deputy Chairman, and other members of the Planning Commission on April 25.

During a one-hour discussion, Mr Lee evinced a desire to find out how India had succeeded with planning in a democratic set-up. He said that apart from India, no developing country in the whole of Asia and Africa appeared to be anywhere nearer the “take-off” stage. “How have you managed it?” was his question.

The Deputy Chairman, on his part, dwelt on how India did not consider planning and democracy incompatible. On the other hand, it believed they reinforced each other. What was crucial for the success of planning in a democracy was (i) the quality of leadership and its ability to communicate successfully to the people the enthusiasm and willingness to sacrifice, (ii) decentralisation of power and (iii) orientation of planning towards economic and social justice.

MR K. C. Neogy, Chairman of the Committee on Transport Policy Co-ordination, explained to a press conference on April 14 the complexities involved in drawing up a co-ordinated transport policy for a developing country like ours. These problems, he observed, arose from inadequate appreciation of the vital rôle that transport and its planning played in the economy. Was transport a service or was it another industry? Economists and administrators were still arguing about the question. Whatever it was, Mr Neogy's point was that it was vital and basic. His second point was that in transport it was necessary to anticipate the demand and provide for it, instead of letting the demand outpace the provision.

MR Vishnu Sahay, till recently Cabinet Secretary and Secretary to the Planning Commission, on retirement from the Indian Civil Service, entered on his new duties as Member, Planning Commission, on April 16. He will be in charge of Administration and Transport. The subjects dealt with in the Third Plan chapters on Organisation of Public Enterprises, Administration and Plan Implementation, and Personnel and Training Programmes will be his special charge, besides Transport.

MR S.S. Khera has succeeded Mr Vishnu Sahay as Cabinet Secretary and Secretary to the Planning Commission. He was until recently Secretary in the Ministry of Steel, Mines and Fuel.

RAILWAYS ENLARGE RESOURCES

PEOPLE and goods have to pay more from July 1 to move on the Railways. The Railways have made the first enhancement in eleven years in passenger fares and also increased the freight rates. This has been done to pay more dearness allowance to workers and to finance development programmes out of the Railways' own resources.

Small Rise In Rates & Fares

More D. A. to Workers

the Pay Commission's main recommendations. More recent minor adjustments in coal rates, etc., (July 1, 1961) have secured very little additional revenue, only about Rs 1.75 crore per year.

With the increase in D.A. and the need to execute the Plan programmes it stands to reason that the Railways should now effect a further increase in the freight rates.

It is proposed therefore to enhance, from July 1, 1962, the basic rate charged for goods traffic by 50 nP. per tonne for traffic, including coal, carried up to 40 kilometres, and one rupee per tonne in the case of traffic carried beyond 80 kilometres, marginal adjustments being made over distances 41-80 kilometres. In the case of food grains, however, the increase of one rupee per tonne would apply only to movement in excess of 160 kilometres, with marginal adjustment between 41 kilometres and 160 kilometres. The existing supplementary charge of five per cent would be levied, in addition, as hitherto.

The Financial Picture

The new proposals will yield Rs 21.26 crore. With these changes, the estimates for 1962-63 are:

Receipts	Rs 545.36 crore
Working Expenses	Rs 356.80 crore
<i>(Including Rs. 12.20 crore more as D.A. to employees)</i>	
To Depreciation Fund	Rs 67.00 crore
Net revenue	Rs 105.07 crore
<i>Out of this,</i>	
To General Budget	Rs 69.35 crore
Passenger Fare Tax	
Share of States	Rs 12.50 crore
Net surplus	Rs 23.22 crore

This will just cover the cost of development work.

These increases will not apply to railway materials, postal traffic, military traffic, and manganese ore traffic export. In the case of livestock and sugarcane, which are charged on wagon basis, the incidence of the increase will be somewhat less. The increase in freight rates will in no case exceed 105 naye paise per tonne, whatever the commodity or the distance over which it is transported.

The estimated additional yield from goods traffic is approximately four per cent over the existing goods earnings of a whole

year. *The increase will thus be a modest one, spread over almost all commodities and so designed that no commodity will suffer a large burden. The resulting rate structure will be slightly more telescopic than at present.*

As regards passenger fares, it is noteworthy that, except for the imposition from September 1957 of the passenger fares tax (which even though merged in the general fares on April 1, 1961, go to the States, and not to the Railways) there has been practically no change since April 1, 1951. In the case of season tickets there has been no change since January 1, 1948. The adjustments made from April 1, 1955, were quite small.

Although the fares have been virtually frozen since April 1, 1951, and the Railways' working costs have gone up, the Railways have endeavoured to improve the amenities in trains and in stations. The Second Plan estimated, and initially provided for, an increase of 15 per cent only in the passenger traffic during the Plan period. *But the Railways were able to provide 26.4 per cent increase in carriages and 23 per cent increase in seating capacity.*

After careful consideration, it is felt that an increase in passenger fares, so as to yield in a full year an additional revenue of approximately 10 per cent of the passenger earnings at the existing level of fares, would be fully justified and, in fact, would be a conservative measure.

The percentage increase proposed in first class fares averages to about 15 per cent while that for second and third class fares would be a little under 10 per cent. For air-conditioned third class in *de luxe* trains, the present surcharge over third class fares will be correspondingly increased.

However, in the case of season tickets the increase will be limited to five per cent, to keep down the burden on office and industrial workers. The charge for season tickets has remained unchanged since January 1, 1948. The monthly charge in Bombay, Calcutta and Madras, corresponds to the value of between 8 and 15 single journeys only, as against 50 to 60 such journeys ordinarily performed in a month on such tickets. Even under the proposed charge wage-earners will have to make only a small additional monthly payment. The average third class suburban season ticket holder travels about 17 kilometres a day each way on the average. Even for 30 kilometres each way the increase proposed will add to the cost of travel only about 40 nP. in a whole month, or less than 1½ nP. a day.

These adjustments in fares and freights will yield Rs 21.26 crore more in 1962-63. The estimate of gross traffic receipts for the Budget year 1962-63 is now placed at Rs 545.36 crore. Ordinary working expenses will come to Rs 356.80 crore. The surplus of Rs 23.22 crore will be credited to the development fund. *It will just cover the estimated expenditure on works chargeable*

(Continued on page 25)

There has, however, been no increase in passenger fares in recent years. The increases in the freight rates have not kept pace with the costs. In 1957 the Railway Freight Structure Enquiry Committee concluded that it was essential to raise freight rates and made proposals which would yield 12.9 per cent more of the goods earnings at the then existing rates. Some increases were effected from October, 1, 1958, but the Government confined them to a level sufficient to yield additional goods earnings of about four per cent. Later, from April 1, 1960, a surcharge of five per cent was levied to cover the cost of implementing

Institute for **MACHINE TOOL DESIGN**

AS THE PLAN MOVES

Nine New Fruit Research Stations

NINE regional research stations are to be set up during the Third Plan period to give impetus to the industry of fruit preservation. The stations will be located at Delhi, Saharanpur, Gauhati, Poona, Simla, Kulu, Nagpur, Calcutta and Trichur. The stations will help the industry in tackling specific problems relating to certain varieties of fruits and vegetables which are available only in particular regions in the country. A provision of Rs 1.25 crore has been made in the Third Plan for the development of the fruit and vegetable preservation industry.

Research is already being carried out at the Central Food Technological Research Institute, Mysore, and the College of Catering and Institutional Management, Bombay.

Some State Governments have provided for the establishment of small-scale fruit preservation units under their schemes for village and small-scale industries.

Big fruit preservation factories are being set up at Joginder Nagar in Himachal Pradesh, Kodur in Andhra Pradesh and Silchar in Assam.

Farms to Teach Jap Method

FOUR farms will be established in India for demonstrating the Japanese method of paddy cultivation to Indian farmers.

They will be located at Nadia (West Bengal), Sambalpur (Orissa), Shahabad (Bihar) and Surat (Gujarat). Japan will provide the required machinery, equipment and tools and the services of 16 experts for a period of three years. An agreement to set up these farms jointly by the Governments of India and Japan was signed in New Delhi on April 23.

A CENTRAL Machine Tool Design Institute is to be set up at Bangalore during the Third Plan period. It will design and develop machine tools and standardise machine tool elements besides manufacturing and testing prototypes. It will train designers and workers for the machine tool industry.

The research it will undertake will cover methods of calculation in designs, the behaviour of machine tools and hydraulic, electric and electronic control systems in relation to machine tools, and metal cutting such as machineability and production processes. Publication of information and documentation of the technological progress of the machine tool and cutting tool industry will also be undertaken by the Institute.

The project will cost Rs one crore. The Government of Czechoslovakia has offered help to the extent of Rs 60 lakh for machinery and equipment. It will also give the services of technicians and experts free of cost.

FUEL FOR ATOMIC POWER

Rs 4.5 Crore for Developing Bihar Uranium Mine

THE uranium mine at Jaduguda in Bihar, which is the main source of uranium ore in India, is to be developed to produce 1,000 tons of ore per day. Work on the project will start this year and is estimated to cost Rs 4.5 crore.

A mill for processing the uranium ore will also be set up at Jaduguda at a cost of Rs 3.94 crore.

The Jaduguda mine will supply uranium for the Tarapur atomic power station. The uranium ore will be converted into the fuel elements to be used in the power station. A uranium metal processing plant and a fuel fabrication plant will be started for this purpose at a cost of Rs 2.5 crore.

100,000 Acres of Waterlogged Land Reclaimed

DURING 1961-62, more than one lakh acres of waterlogged land were reclaimed in Uttar Pradesh (50,000 acres), Assam (25,000 acres), Andhra Pradesh (20,000 acres), Jammu and Kashmir, Gujarat and Kerala. The total area of waterlogged land in the various States is estimated at 65 lakh acres, including 25.56 lakh acres in West Bengal, 4.27 lakh acres in Assam and three lakh acres in Kerala.

A special research division has also been constituted at Munirabad under the Tungabhadra Project in Mysore to suggest measures for reclaiming the waterlogged lands.

RAILWAYS TO USE TV

THE railways are introducing a closed-circuit television system next year to speed up the flow of goods traffic. A contract for the television equipment has been placed with a British firm.

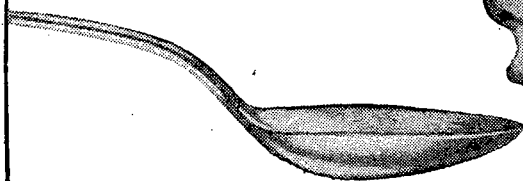
The television system will be installed at the All-India Telecommunication and Railway School at Secunderabad.

THE co-operative movement has covered almost the entire rural area in the Punjab State. There are 33,155 co-operative societies with a working capital of Rs 80 crore and a membership of 22 lakh. Of the 21,048 credit societies in the rural areas, 12,700 are service co-operatives. By the end of 1963-64, every village will have a service co-operative too.

As regards co-operative farming, four pilot projects were started last year in development blocks with a financial assistance of Rs 2.5 lakh. In non-pilot areas, assistance to farming societies amounted to Rs 7 lakh.

There were also 3,774 industrial co-operatives including 1,549 small-scale societies and 827 weavers' co-operatives.

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Agencies for Rural Development

QUESTIONS from Mr. K. Sambamoorthy, Mudigubba, Anantpur (A.P.)

1. What is the 'Gram Ekai' scheme? How is it distinguished from the 'Intensive Area Programme' of the Khadi and Village Industries Commission?
2. Is it a fact that an all-India board or commission is to be set up separately for all cottage industries?

ANSWERS. 1. The Gram Ekai scheme is the fruit of the experience of the Intensive Area Programme, the Gramdan movement and reports of the evaluation committees of the Khadi Commission. The evaluation committees suggested in 1960 a radical change in the working of the various Khadi schemes. The Third Plan also laid down: 'Further development of Khadi will be mainly along the lines of the reoriented programme drawn by the Khadi and Village Industries Commission in which the emphasis will primarily be on intensive efforts to secure integrated rural development of selected compact areas or Gram Ekais. It is proposed to organise 3,000 Gram Ekais, each covering a village or group of villages, having a population of 5,000 each'. The Gram Ekai thus envisages the overall development of the area covered by it.

The Khadi Commission gives financial assistance to the Khadi and village industries institutions which run the Gram Ekais. The responsibility for providing trained workers for the implementation of the Gram Ekai programme has also been taken over by the Khadi Commission. There will be mobile training centres to train the Gram Sahayaks in the Gram Ekai work.

The Gram Ekai scheme is different from the Intensive Area programme on the following points: (1) The former covers an area in which some work has already been carried out under the latter, or under the C.D. programme or by some voluntary

organisation. (2) The latter covers 30-40 villages with a total population of 20,000 while the former is meant for a population of 5,000 only. (3) The Intensive Area scheme, launched during the Second Plan period, was aimed at preparing 'village plans for utilising all available manpower and other idle resources'. The Gram Ekai takes a step further in this direction. The local plans will be prepared 'for the maximum exploitation of available resources for local use with a view to achieving local self-sufficiency to the extent possible' and 'these plans will be executed by registered institutions as well as service co-operatives and Gram Panchayats'.

2. The Planning Commission has recently set up a Rural Industries Planning Committee of 14 members. The Committee will review the progress of industries in rural areas, advise on problems of policy and planning relating to them and recommend programmes for the intensive development of village and small industries.

INDIAN LABOUR

QUESTIONS from Mr. P. R. Kulkarni, Sholapur.

1. What is the significance of vocational guidance programmes?
2. What are the causes of the inefficiencies of Indian labour?

ANSWERS. 1. Please refer to the article on 'employment' (*Yojana*, February 18, 1962) for a detailed treatment of this aspect.

2. This is a question that does not admit of a short answer. The positive aspect of raising productivity has been dealt with in *Yojana* of January 26, 1961, ('Achieving Higher Productivity' by B.N. Datar) and January 26, 1962 ('Enhancing Value through Training' by B.N. Datar).

An agreement signed with Japan on March 31 provides for the setting up of a marine products processing training centre at Mangalore (Mysore).

Railway Budget

(Continued from page 22)

to the fund in 1962-63, and will therefore obviate the need for a loan from the general revenues to finance the fund.

Coal Movement

Let us turn to the transport performance of the Railways. In coal transport, the Railways have been meeting the full demands of the steel plants and washeries. Further, the demand for wagons from the outlying coalfields were also met in full. As regards the movement of coal for consumers other than steel plants from the Bengal and Bihar coalfields, the Railways moved, during 1961-62, an additional 182 wagons per day. The rate of increase will be progressively more in the remaining years of the Plan. In the Bengal and Bihar coalfields, while occasional wagon shortages were felt for inescapable reasons, total coal loading during 1961-62 averaged 319 wagons per day (or 7.1 per cent) more than in the previous year.

As regards movements planned during 1962-63, it is programmed to meet in full the demands of the steel plants and washeries, and to provide initially for a daily movement of not less than 3,646 wagons for other consumers from the Bengal and Bihar coal fields, as compared to 3,580 wagons in 1961-62 and 3,398 wagons in 1960-61. In the later part of the year it would be possible to improve on this figure. No difficulties are anticipated in meeting the requirements of the outlying fields in full. Government's objective in the Third Plan is to step up production from these fields. In the result, consumers of coal in general may expect, and will receive, more supplies than during the last year.

In the first year of the Third Plan, electrification of 528 route kilometres was completed; a further 350 route kilometres are expected to be electrified in 1962-63. Doubling of track of about 600 kilometres was completed in 1961-62; it is programmed to complete 800 kilometres more of doubling in the current year.

The fleet of locomotives was augmented by the addition of 41 metre gauge diesel locomotives in 1961-62; it is expected that 112 broad gauge and 19 metre gauge diesel locomotives will be received in the current year. The Chittaranjan Locomotive Works have begun turning out electric locomotives, of which 21 are expected to be delivered before the end of 1962-63. The output in the Integral Coach Factory has been steadily increasing. The factory produced 598 coach shells last year and will make 644 coaches this year. Wagon production has suffered difficulties owing to shortage of materials, but these are being steadily overcome. During 1961-62, as many as 19,100 wagons, in terms of four-wheelers, were manufactured, compared with 11,984 in the previous year. The present production rate of 2,250 per month will be improved in the coming years. Most of the major line capacity works, needed to cope with the anticipated rise in traffic during the Third Plan period and which take time for execution, have either been sanctioned already or else are ready to be taken up during the current year.

Cleaner Towns and Villages

(Continued from page 7)

system were taken up in an intensive way. The continuous pollution of water in the village was found to be due to faulty construction of wells and wrong methods of storing water in homes. Latrines and new types of soakpits were introduced. As a result of this campaign, the incidence of waterborne diseases has declined in the village and the villagers have been convinced of the benefit of new sanitation. The experience gained in this living laboratory can now be applied elsewhere.

Public health engineering is a specialised job and the facilities for training these technicians are not adequate in the country. Even the

research workers required by the Institute are at present recruited from other disciplines. Mr. Mehta said, "The Institute intends to undertake programme to meet this need. We collaborate with the universities in post-graduate studies relating to public health engineering. The World Health Organisation, which has given much help to establish this Institute, is interested in making it a teaching centre for South-East Asia."

At present the Institute is housed in a private bungalow on the busy Mount Road. Shortage of space has handicapped its work. However, a new building has been built on a spacious plot in the quiet

atmosphere near Jail Road. The building has a well-equipped laboratory and quarters for the staff. Mr Mehta hopes to move to the new building in a few months. Then the Institute can do its work with greater speed and efficiency.

MAHATMA

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QUIZ ANSWERS

- Rs 12.39 crore, Rs 395.22 lakh, Rs 844.18 lakh.
- c. 21,076. Under the Delivery of Books Act, 1954, every publisher in the country has to send one copy of every publication to the National Library, Calcutta, the Connemara Library, Madras, and the Town Hall Library, Bombay. Among States, the largest number of books were from Delhi, 3,828—the big number being accounted for by Government of India publications.
- From its inception in 1948 up to December 31, 1961, the Industrial Finance Corporation of India sanctioned loans for a total amount of Rs. 115.44 crore to 256 concerns. These cover a large variety of industries including aluminium, automotive engineering, cement, chemicals, ceramics, cotton textiles, electric power, electrical engineering, glass, iron and steel, mechanical engineering, mining, paper, plywood, rayon, sugar and textile machinery. Recipients of IFC help are distributed throughout the length and breadth of India. IFC pays special attention to developing the less developed areas of the country.
- a. The Central Railway was first, with a capital at charge in 1962-63 of Rs 272.98 crore, followed by Northern Railway with Rs 262.15 crore.
b. The Central Railway, again, which expects gross traffic receipts of Rs 100.01 crore in 1962-63, followed by Western Railway with Rs 90.63 crore.

ATOMIC POWER STATIONS

THE first atomic power station of India, located at Tarapur on the west coast, is likely to be completed by the end of 1966.

The expert committee set up for the selection of sites for about half a dozen more atomic power stations has submitted its report for the site in the area of Delhi-Punjab-Rajasthan-Uttar Pradesh. The report is under consideration by the Government.

FERTILITY OF SOIL

And How Organic Matter Is Vital

From the I.C.A.R. Agriculture Information Service

THROUGHOUT his existence on this earth, man has depended on the fertility of the soil either directly or indirectly for the production of his food and clothing and materials for fuel and shelter. Forage crops on which our domestic animals feed are also the immediate products of the soil. A barren soil does not produce crops or forage. Human life and prosperity are conditioned by the rational use, wise management, adequate manuring and proper conservation of the soil. These are the three factors contributing to soil fertility and productivity.

To maintain the fertility and the productivity of a soil is a positive obligation the land-owner owes to society. Likewise, society has an equal obligation to pay the farmer such prices for his produce as will compensate him for his toils. Adequate returns are, therefore, essential to enable the farmer maintain himself as well as the productivity of the soil so that he may continue to supply the human needs of the present and the future.

For the production of good crops, a farmer should maintain conditions in the soil that are favourable for plant growth. The maintenance of desirable physical conditions in the soil is important. Chemically, the soil should have a favourable reaction. It should not be too acidic or too alkaline and should be free from injurious salts. It should contain fair amounts of organic matter and helpful soil micro organisms. It should also contain fair amounts of plant nutrients.

Each of these factors is inter-dependent. Except in a few unfavourable areas, most South Indian soils could be made to produce profitable crops by proper conservation and manuring as they are inherently endowed with all the factors of fertility.

ORGANIC MATTER

All soils contain organic matter in varying amounts. The organic matter in a soil comes from the decomposition of plant residues. These residues of higher plants are excellent food for the bacteria and the other small organisms found in the soil. As soon as they are added, the soil organisms start decomposing them. The easily available organic residues disappear as a source of nutrients and energy to the organisms, and the rest are left behind and temporarily accumulate in the soil. Thus the organic matter in the soil may be of various kinds, the easily decomposed, the decomposable, the undecomposable and so on.

The final products of decomposition are carbon dioxide, water and nitrogen compounds in an available form to crops. Apart from fertilisers that may be added, organic matter is the only source of nitrogen required by crops. As nitrogen is the most important plant nutrient, plants require it in large quantities and it comes from the decomposition of the organic matter in soil. Hence the importance of soil organic matter. The soil supply of nitrogen can be supplemented by adding nitrogenous fertilisers for higher yields.

NEED FOR FERTILISERS

The soil contains only small quantities of organic matter. It varies from half per cent in poor soils to two per cent in very fertile soils. Some forest and other soils may contain much larger quantities. A soil with two per cent organic matter contains about 700 lb. of nitrogen to the acre within a depth of about six inches. But all this is not available for the crop at a time. It has been estimated that less than one-tenth may be available during



an average crop period. Hence the need to apply fertilisers.

Apart from supplying nitrogen, organic matter is useful for giving a good structure to the soil and obtaining a good tilth. It helps in reducing fixation of plant nutrients and also making them more available. The soil organic matter is also useful in various other ways. Hence the need to apply cattle manure, compost or green manures to the soil from time to time to maintain sufficient quantities of organic matter in the soil.

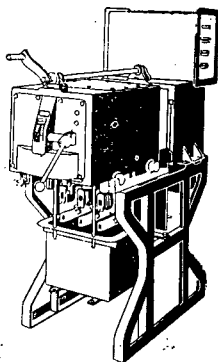
PLAN QUIZ

1. Fill in the blanks :
During the Second Plan period, the University Grants Commission paid in all Rs.....crore by way of grants to universities for development schemes. Of this sum, Rs.....lakh were for humanities and Rs.....lakh for science and technology.
2. How many books approximately did the National Library receive in 1961-62 under the Delivery of Books Act?—(a) 45,000, (b) 11,000, (c) 21,000.
3. What is the amount of loans so far given by the Industrial Finance Corporation of India?
4. Of the eight regional railway systems in our country, which is the largest (a) in terms of capital at charge and (b) in terms of earnings?

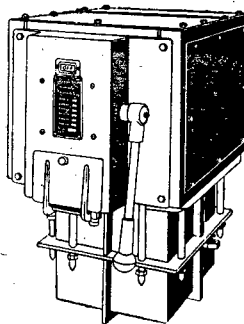
(Answers on page 26)

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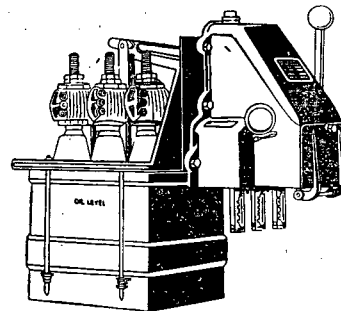
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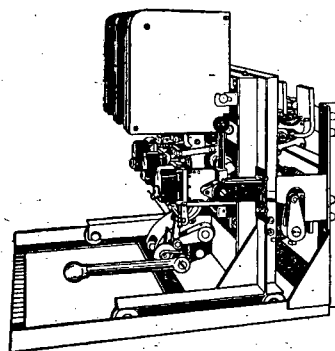
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R. V. IYER

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Yojana provides information not only to foreigners but also to those Indians living in big cities and towns, who, as arm-chair critics, complain of the slow progress made by our country. For them it is an eye-opener.

Yet I feel that in every issue a page should be allotted to the high school and college students who desire to obtain authentic information regarding the available scope and possibilities of their training in India.

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Yojana has already made a striking progress. Readers are grateful to you for the better quality of paper

being used now. The journal may prove more useful if the following suggestions are implemented. *Yojana* should provide information on the development of the film industry, sports and Hindi literature, laying stress on the steps taken in this regard in the Third Plan.

New Delhi

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Yojana is making steady progress. It would be better if colour was used on one or two of the inside pages also. Apart from your regular articles and features on planning and development, can you not introduce some light reading material in your journal? This will help in enhancing its popularity.

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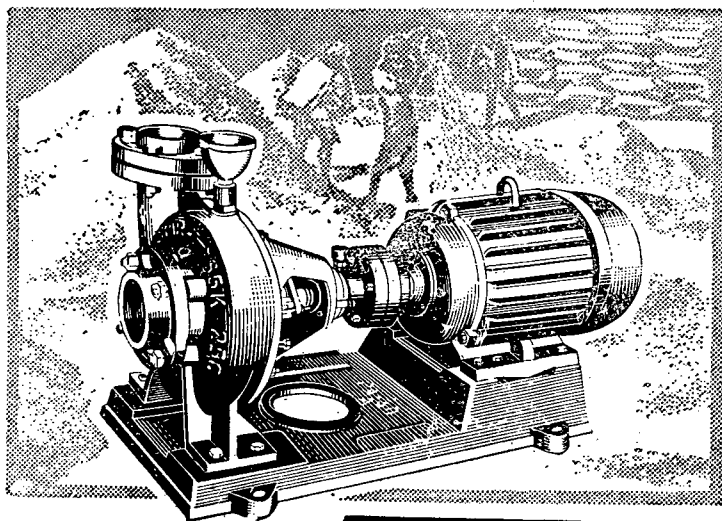
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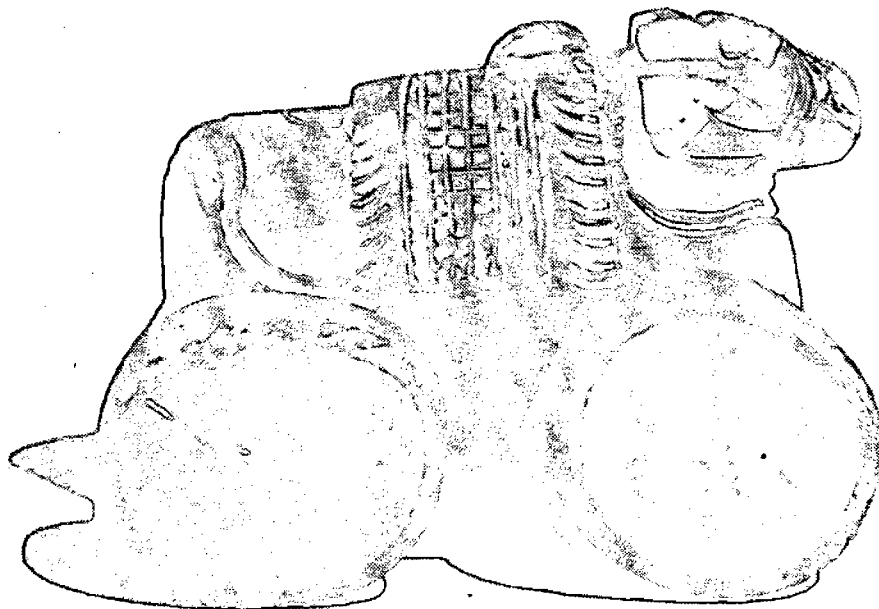
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Pride of Place



TOY BULLS OF MYSORE

THE Nandi is one of the great themes in the Kannada country for sculptors and songsters. There is the Bull of Mysore on the Chamundi Hill. The temples of Belur and Halebid are full of bulls. In Hampi a great bull rests majestically in the main temple. In Bangalore a whole residential area is named after the bull, and its image in the temple has had a giant nail driven into its forehead "to keep it from growing". And next to this temple an interesting festival is held—the annual Fair of the Groundnut.

The prestige that the Nandi theme enjoys is certainly due to the Veerasaivas who regard Siva's bull as a symbol of true faith. The most revered saint of this sect called himself Basava, the bull. And Basava, in its non-religious form, is the first toy and the favourite of

children of all classes in Mysore. They tie a string to a bull on wheels and drag it wherever they go, often singing:

Shake the bells on your ankles
ghilik-ghilik,
 and come with me
 Basava, my brother Basava.
 I'll give you grass,
 I'll give you bran,
 Basava, my Basava.
 We'll go to the field,
 We'll go to the fair,
 Basava, my Basava.

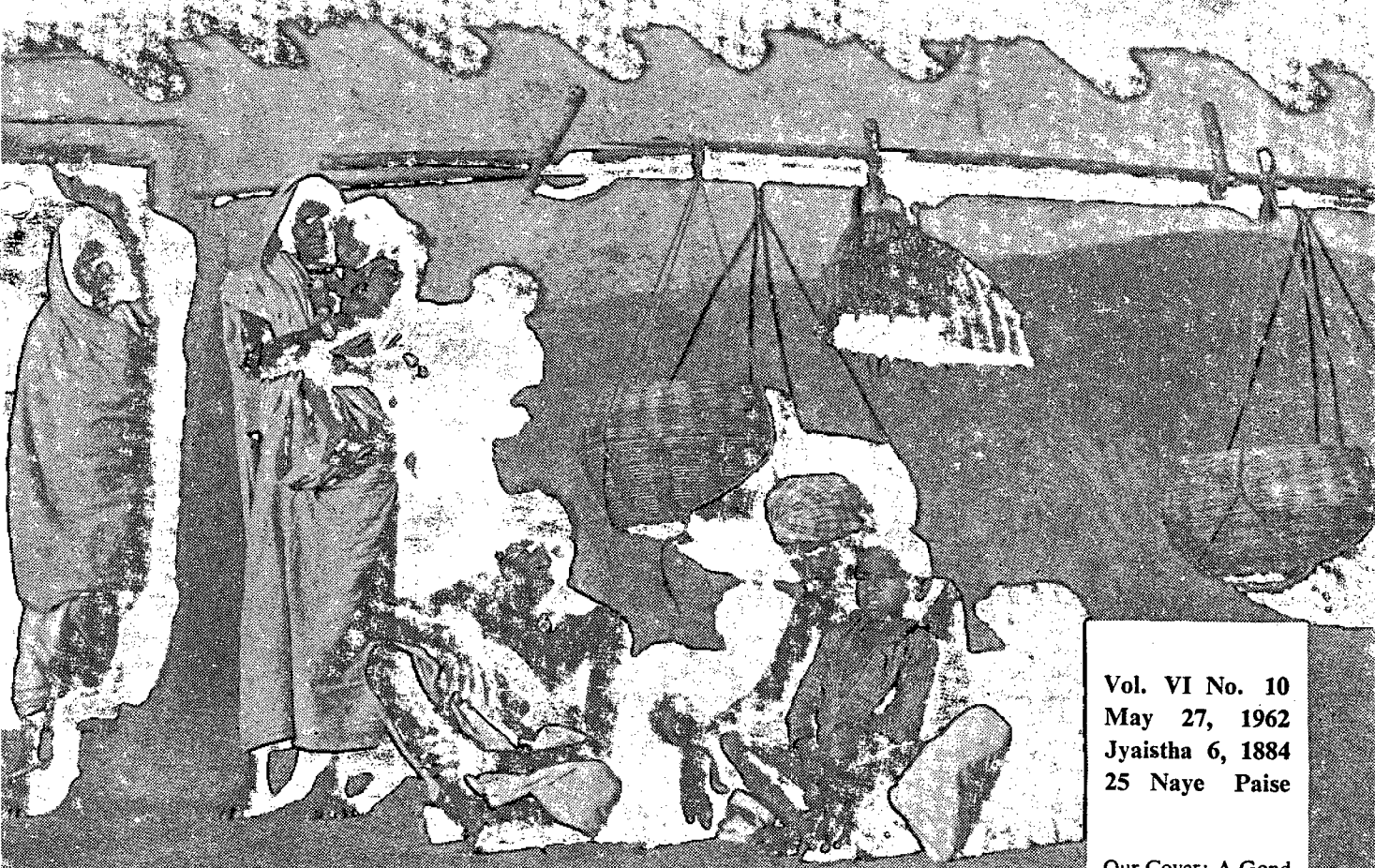


These Basava toys, which are made of wood, have many peculiarities. First of all, the bull has no horns; secondly the hump is emphasised much more than the rump, and thirdly the wheels are large and strong.

Within the last thirty years, however, the loving care with which they used to be made has waned. Instead of good, fine-grained teak, they are today made of the wood of the jack-tree. The sandalwood Basava, for the rich people's children, has practically disappeared. So has the soapstone Basava. The fashionable toy-shops think it beneath their dignity to sell them. Teddy-bears, proclaiming the superiority of the West, have worsted the animal, which has been with us since before Harappa.

Welfare of Tribal People

YOJANA



Vol. VI No. 10
May 27, 1962
Jyaistha 6, 1884
25 Naye Paise

Our Cover: A Gond
family from a village
near the Rihand
Dam, Uttar Pradesh

To Become Modern, But



*"Kings of the jungles, we
Rule like the tigers,
Chirp with the birds,
Sing and dance merrily,
Our Mother blesses us
La-re-re-re-la, La-re-re-re-la"*

Thus the Korkus of Melghat in Amravati district of Maharashtra sing while their nimble feet dance to the resounding beats of the drums. Rows of men and women, with their arms entwined in each other's, move forward and backward in gentle swings as though under a spell. The soft moonlight vibrates with the melodious rhythm and the dreamy trees stir enchantedly amidst their own magic shadows.

Such joyful songs and beating drums resound in all jungles of India. Everywhere there are these 'kings of jungles', as they call themselves proudly. We call them tribals, or aboriginals, or primitives, perhaps with a false sense of superiority and estrangement. It is true that they do not know the ways of the civilised men as we are. For centuries they have lived in the jungles, in the company of birds and deer, tigers and bears, trees and hills, brooks and breezes, open to the sky, fighting against the wrath of elements and the claws of fierce beasts. They have lived away from the madding crowd and its civilisation. And they have developed their own way of life, a social order, orthodox but free, hardy but cheerful and closed but vigorous. We know them by their magic and sorcery. But they live by their faith, which the civilised man is fast losing, to make himself more lonely and helpless.

The dances, songs and handicrafts of the tribal people reveal their aesthetic sense and skill. Picture above shows a Mulki dance by the Murias. The tablet raised to the memory of the dead (picture below) by the Bhils of Rajasthan is a specimen of their workmanship.



To Remain Natural

TODAY these kings of the jungles are backward, in our sense of progress, and different from us in their beliefs and way of life. But perhaps they were not so all along. They were like us, indeed one of us, before they were driven to the jungles or, perhaps more likely, when we also lived in the jungles. Several tribes trace their origin to mythological heroes and episodes in the *Ramayana* and the *Mahabharata*, even to the deities like Lord Shiva and Krishna. According to the Vedic tradition, the great sage Vishwamitra cursed his hundred sons to become tribals. The Korkus believe they are the descendants of King Virat in whose court the Pandavas stayed in disguise. Whatever the

A wooden mask used on festive occasions by the Gonds of Chhindwara. The Tribal Research Institute there has collected pieces of tribal arts and crafts in a museum.



Continued Overleaf

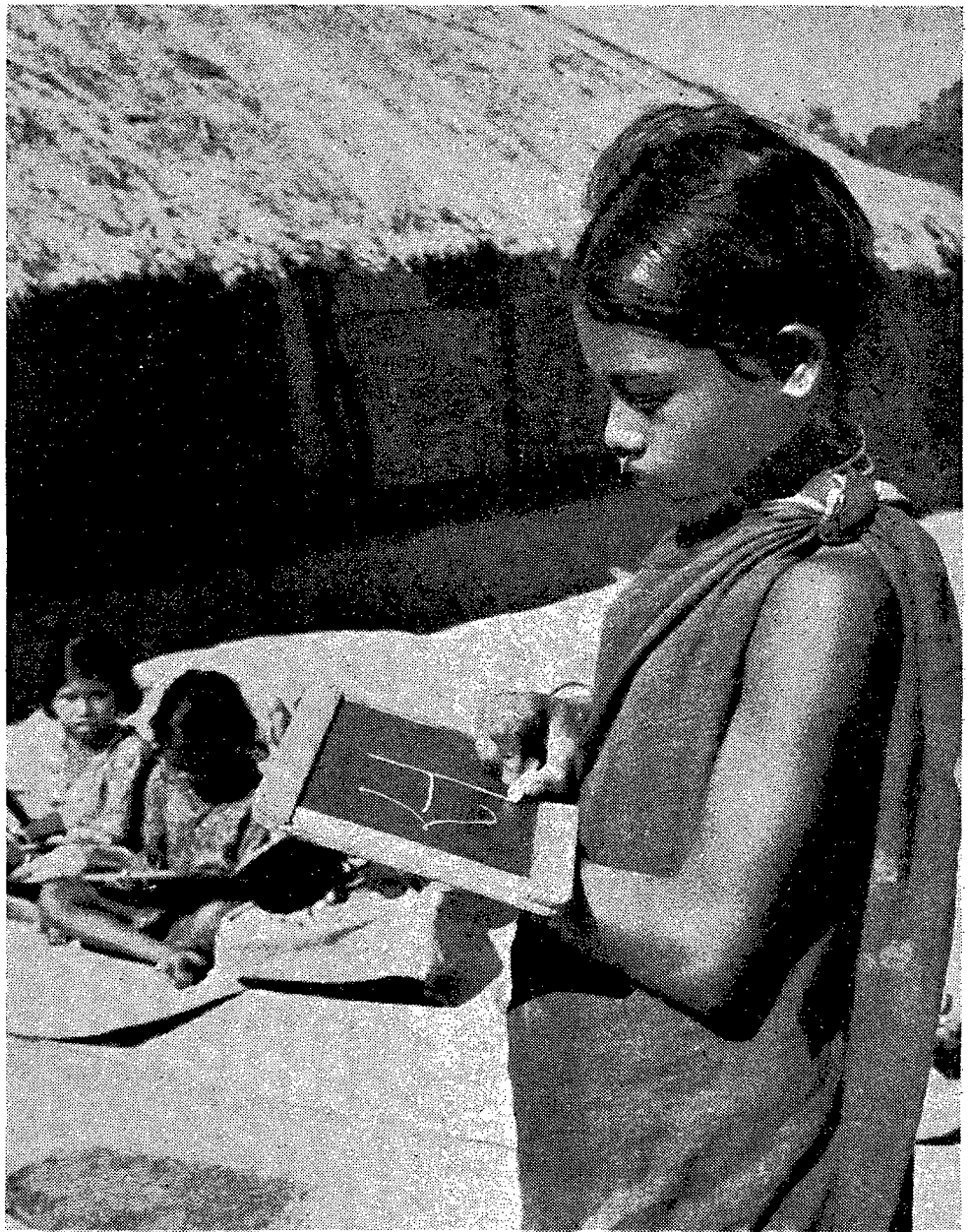
How Plan Helps TRIBAL PEOPLE

By M.K. Pardhy

While the rest of the country goes forward, the tribal areas can scarcely remain in isolation. At the same time it would be an error to over-administer the areas in the name of development. A middle way has to be found. The tribal people should be enabled to develop along the lines of their own genius, with genuine respect for their own traditional arts and culture without pressure or imposition from outside. —

The Third Five Year Plan, chapter XXXIV

Ashram type of schools are better suited to the temperament of tribal children. The picture at right shows a Gadava girl in the Ashram School at Boroguda near Koraput in Orissa.





The Baiga women of Shahadol area in Madhya Pradesh find the new well more convenient and comfortable for drawing water. While the Korvas of Raigarh, also in Madhya Pradesh (picture below), still continue to make fire by rubbing sticks.

truth of these legends, it is certain that there had been an intimate relationship in the ancient times between the so-called tribals and the civilised society. Even in the historical times, several people who belonged to martial or prosperous communities fell under bad days, politically or economically, and went into exile. After centuries they have come to be known as tribals. The Gujars and Lohars of Rajasthan are examples of such communities. In parts of Madhya Pradesh and Maharashtra, the Gonds had their own kingdoms in the not very distant past.

One of our problems today is to re-establish this forgotten relationship and re-create the sense of oneness between the tribal people and the rest of the Indian society. "We must cease to think of our being different from the so-called tribal people," says Prime Minister Nehru.

This emotional integration is very delicate and complex. Over centuries of isolation, these two parts of the Indian society have lived in such different atmospheres and have developed such different patterns of social organisation that today they appear alien to each other. The civilised society dubs the tribal society primitive or backward. In turn, the tribal society is so sensitive to its own age-old traditions that it suspects and resents any imposition of new-fangled ideas.

Prime Minister Nehru has indicated the right approach in these circumstances. He says; "It is obvious that these (tribal) areas have to progress. Nobody wants to keep them as museum specimens. But it is equally obvious that they have to progress in their own way. No individual can grow in alien surroundings, habits or customs. How are we going to keep these two things together? There are two extreme approaches. One is the museum approach, keeping them as interesting specimens for anthropologists to discuss. The museum approach is, of course, bad. The other, which may be called the 'open door' approach, is equally bad. Normally, that approach attracts all the undesirables from

outside who exploit these people economically and otherwise and just take them out of their moorings without any equilibrium. We have to find a middle course. And that can only succeed if the people are in harmony with it and co-operate with it and there is no element of compulsion about it. The first thing is therefore to train their own people who can work among them and that would be far more affective than for outsiders to try."



PERHAPS a two-way traffic is necessary to bring about the progress of the tribal communities. Whatever good and lasting in the tribal culture must be retained and also imbibed, wherever feasible, in the civilised society. The tribals have a personality full of physical vitality and mental resilience. The frustration and regressive tendencies noticeable in 'civilised' society are unknown to them. They have no decrepits. Their life swings between hard labour on the one hand and enjoyment and fun on the other. However, it is essential that they should not be islands unto themselves in a fast-changing world. The way out is to inject new ideas into them without disrupting their own way of life and values. It is observed that the tribal people respond to improvement if they are approached properly and so long as their social norms are not violated. A change will come gradually and slowly, bridging the gulf between the two societies.

The change is necessary for three reasons. Firstly, the tribal societies have stagnated and have lagged behind in the modern age. Secondly, several customs and beliefs have proved suicidal to their own existence. They have no weapon against disease and epidemics although they may bravely subdue an angry beast. Several tribal communities are slowly dwindling in population because of their exclusiveness and harmful customs. For instance, the Todas in the Nilgiris. Thirdly, they have remained backward economically and educationally resulting in very poor standard of living. To let them continue as they have is to expose them to disaster.

There are more than 30 million tribal people (including about four and half million people of 'Denotified Tribes', formerly known as 'Criminal Tribes'). They are scattered all over India, mostly in jungles or in the inaccessible interiors of the country. Socially and economically they are at different levels of development—from the primitive economy of hunting and food-gathering with a nomadic way of life to the educationally advanced



The young and the old of a Muria family of Bastar

tribes of north-east region. Some tribes roam about in the hills while others have settled near urban areas. Their social organisation differs from tribe to tribe—if one tribe practises polygamy, another is polyandrous. They are bound to their traditions and have deep faith in their rituals which have at times undesirable elements. It is difficult to draw any uniform programme of development in these circumstances. *However, the fact remains that education and economic improvement are the basic needs of the tribal people.*

POLICY AND PLAN

THE Constitution of India has laid down that, "the State shall promote with special care the educational and economic interests of the weaker sections of the people and in particular of the Scheduled Castes and Scheduled Tribes and shall protect them from social injustice and all forms of exploitation". The Government of India has formed its policies towards the tribal people in the light of this Directive Principle.

The Third Plan says, "Development in such directions as education and provision of training facilities, improvement of agriculture, building up of communications, improvement of health and medical facilities and supply of drinking water are both essential and inevitable. In facilitating these developments the tribal people should be enabled to develop along the lines of their own genius, with genuine respect and support for their own traditional arts and culture and without pressure or imposition from outside. In tribal areas every effort should be made to train and build up a team of their own people to do the work of administration and development... The stress should be on a few programmes of basic importance which are calculated to mitigate poverty, impart new skills, promote health and better living, improve communications, without upsetting the stability of social and cultural values, the pattern of leadership and institutions and the scheme of obligations within the tribal community." The approach of the two earlier Plans was also very much the same.

(Continued on page 5)



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A Toda from the Nilgiris, a tribe which has suffered decay by its seclusion; and the tribal students (below) learning to work on a lathe at the Industrial Training Institute, Korba.

The Third Plan has allocated a sum of Rs. 60.43 crore for the schemes of tribal welfare, besides Rs. 4 crore for the welfare of the Denotified Tribes. This amount is likely to be revised; the Scheduled Areas and Scheduled Tribes Commission, in its interim report, has recommended an outlay of Rs. 73 crore. During the First and Second Plans Rs. 62 crore were spent for this purpose in addition to Rs. 4 crore on the Denotified Tribes.

The development schemes launched in the tribal areas encompass all fields of tribal life. Some of these schemes are implemented by the States and others by the Centre. Absence of transport and communication facilities has been one of the major causes of the backwardness and isolation of the tribal people. Now new roads are being built to connect the tribal areas with the rest of the country. Under agricultural schemes, tribal people are given lands of their own. Tenancy legislation has been enacted wherever necessary.

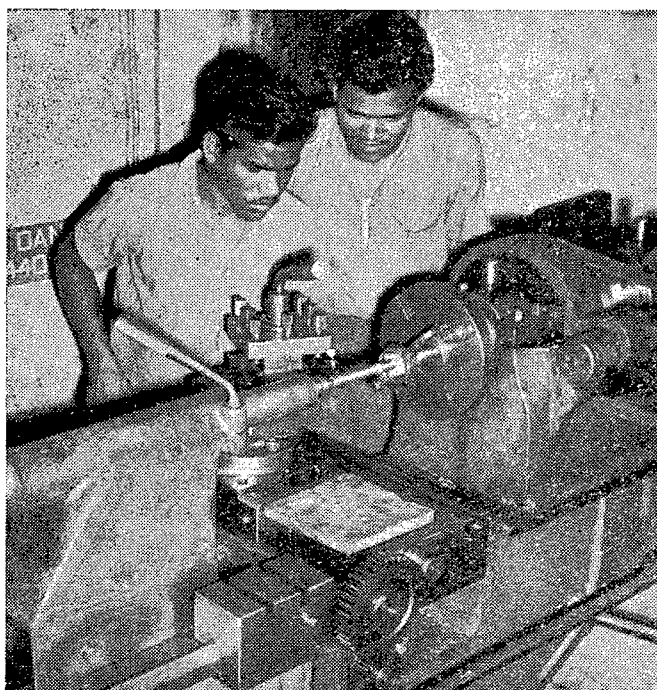
The tribal people are generally known for the practice of shifting cultivation. This wasteful practice is being discouraged, and they are being taught to pursue terrace cultivation. Bullocks, seeds and implements are supplied sometimes as loans and sometimes free. Laws have been enforced to free these people from various kinds of indebtedness.

Besides freeing them from the grip of dead custom, the tribal people are being helped in their traditional arts and crafts. The co-operative movement helps them in various ways—giving them loans, supplying materials, getting a better price for their beautiful products. Forest labour co-operatives are formed to rescue them from the tyranny of contractors and middlemen and of forced labour. Local works are started to provide employment. For building houses, they are given timber from the forests. Sometimes, Government even builds houses for them. Dispensaries and free medicines are provided. More and more schools are being opened and scholarships given.

Co-ordination of all these welfare activities is done through what are called multi-purpose tribal blocks.

By the end of the Second Plan, there were 43 such blocks in different parts of the country. The Third Plan provides for 300 blocks. These blocks aim at intensive and all-round development of the area on the general pattern of the community development movement but modified to suit tribal conditions and supplemented by additional resources. Formerly each block involved an outlay of Rs. 27 lakh. Now the scheme has been revised in such a way that there will be an initial outlay of Rs. 22 lakh for five years, followed by an additional Rs. 10 lakh for the next five years.

Education in the tribal areas is a difficult problem to tackle. Every tribe has a dialect of its own, often without a script or literature. Hence the compilation of text books is not easy. Shortage of trained teachers is another handicap. Not all tribal people are well disposed towards modern education. A tribal saying in Maharashtra warns the children: "If you remain an Adivasi, you will rule the jungles. But if you take to education like a Brahmin, you will have to write and write and perish". This attitude is strengthened by economic conditions. A young boy or girl can collect fire-wood in the forest, graze a goat, lend a helping hand on the farm. If he or she goes to school, it is a loss to the family. Also, these children of the open air find it difficult to sit hours together under a roof. In the



primary school at the village Salona in Amravati district (Maharashtra), I met a boy who had absconded from school for more than a month. He told me that he had gone to work on the construction of a road, not because he was compelled by his parents but because he liked it better than spending the whole day in a classroom. The distances between villages in sparsely populated tribal areas also come in the way of providing schools or enlisting a good attendance.

(Continued on page 24)

CASTE AND ECONOMIC DEVELOPMENT

PLANNING in India aims at economic development as well as the simultaneous building up of a society which is 'fundamentally integrated from within'. Underlying the socialist pattern of society is the realisation that "any marked lag between economic and social development is bound to create severe stresses and strains."

Since Indian society has traditionally been caste-ridden, much emphasis has come to be placed on the work of abolishing caste distinctions. The caste system is said to be as much a hindrance to economic progress as to the realisation of social equality and integration. After a full decade of planning the following questions still require deeper research and field investigation.

- (1) How far does the caste system act as a barrier to economic development in the rural areas?
- (2) Have the economic forces being released under the impetus of economic growth been instrumental in narrowing (or widening) the distance between privileged and underprivileged castes in rural society?

A picture of recent trends can be drawn only from the scattered data and information provided by the enquiries and investigations undertaken by social scientists, research agencies and organisations. There has not been enough co-ordination between the economists and sociologists working in this field; the economists have by and large devoted their energies to the assessment of economic trends, and the sociologists have confined themselves to the study of the social structure—in many cases without taking sufficient cognisance of the new economic forces and motivations.

The Agricultural Economics Research Centres established by the Union Ministry of Food and Agriculture in different parts of the country have as their main objective the study of rural change. The Delhi Centre, which functions under the University of Delhi, has been engaged for the last five years in the study of changes in the rural economy and society of Punjab and Uttar Pradesh by means of surveys of a number of selected villages each year, the surveys to be repeated in the same group of villages at intervals of five or more years. The first-point surveys of 62 villages have so far been completed. The re-survey investigations of the first group of five villages have also been completed.

The findings of these re-surveys are expected to throw considerable light on the

The views expressed here are those of the author and not of the Agricultural Economics Research Centre, University of Delhi, where he works. Thanks are due to Mr Ramadre Singh and Mr Prem Kishore who helped in the preparation of this paper.

What Is the Impact of Each on the Other?

SURVEY OF U.P. VILLAGE GIVES CLUES

By Dr. P.C. Joshi

economic changes in the rural areas of these States; they will also provide some insight into the role of social factors in economic growth and the social repercussions of economic changes in village economies. In particular, these studies are expected to contribute towards a better understanding of caste and class structure in the context of economic development in the rural areas of the two States.

Occupational Pattern

THE first-point surveys themselves indicate certain aspects of the interrelationship of caste and economic structures. In the present article an attempt has been made to study some of these aspects on the basis of the data of Sanoli, a village in Saharanpur district, U.P. The village was surveyed under the Continuous Village Survey project by the Centre during 1955-56. Attention has specially been focused in this paper on caste-occupation-land distribution in Sanoli.

The caste distribution of its 125 households at the time of the inquiry was :

Brahmins	6
Khattris	1
Gujars	66
Jogis	3
Dhimans	5
Nais	5
Bharbhujas	1
Kumhars	3
Dhobis (Muslim)	4
Chamars	25
Churas	6

The occupations followed by different caste groups at the time of enquiry were:

<i>Brahmins</i>	Cultivation, priesthood.
<i>Khattris</i>	Grocery and provision shop-keeping.
<i>Gujars</i>	Cultivation, production of livestock products, trade and non-agricultural labour.
<i>Jogis</i>	Cultivation, cattle farming, trade.
<i>Dhimans</i>	Cultivation, carpentry, remittances from relatives.
<i>Nais</i>	Barber's work, agricultural labour, cultivation.
<i>Dhobis</i>	laundrying, agricultural labour
<i>Kumhars</i>	Provision of mules for carrying loads.
<i>Chamars</i>	agricultural labour, shoe-making, tailoring.
<i>Churas</i>	scavenging, agricultural labour, pig-keeping, skinning of dead animals.

Gujars, with 66 households out of 125, constitute the dominant caste in the village both in numerical strength and in control over economic resources. They occupy the most eminent position in the village in cultivation, accounting for 61 out of the 70 households engaged in cultivation. As many as 37 raise livestock products as a subsidiary occupation.

Next to the Gujars in numerical strength are Chamars comprising 25 households with a total population of 113 persons. Traditionally tanners and shoe-makers, the Chamars have been elbowed out of their customary occupations. Listing only the principal occupations, 7 out of the 25 Chamar households in Sanoli are to be found in the arts and crafts group, six as shoe-makers and cobblers and one as a tailor. Of the remaining households, one is connected with trading in fuel, another with livestock and 16 with labour (mostly agricultural).

Now to the more numerous of the other castes. Of the six Brahmin households all are cultivators, and only three have connections with priesthood as a subsidiary occupation. Of the five families of Dhimans, traditionally carpenters, only two are connected now with carpentry. Similarly out of five Nai households only two work principally as barbers, a third having it as a subsidiary occupation. Of the three households of Kumhars, none is engaged in pottery now and all the three earn their livelihood by supplying mules for transport. The six households of Churas are engaged in occupations like scavenging and agricultural labour. Their subsidiary occupations are pig-keeping and skinning of dead animals.

No Rigid Nexus

FROM this account it is evident that the different caste groups in Sanoli are far from being *fixed and homogeneous occupational groups*. In fact they show considerable resilience and adaptability in the face of changing economic situations. Members of most of the caste groups, both high and low, have had recourse to cultivation without any loss of social status or distinction. The inhibitions about handling the plough and doing manual labour even on one's own farms, which are generally characteristic of

some upper castes like Brahmins, are not to be found in Sanoli. (This is indicative of the influence exercised by the numerically and economically dominant caste of Gujars on other castes in the village including the Brahmins.)

Secondly, the pursuit of more than one occupation is a common feature of most of the households from almost all caste groups in the village. It is important to note that even when some of the artisan and service castes continue to be partially dependent on their traditional callings, they have to resort to other subsidiary sources of income to eke out a livelihood. This pressure for occupational diversification has been one of the important factors responsible for preventing caste groups from getting petrified into rigid occupational groups. That is, there is no longer a rigid caste-occupation nexus. On the contrary there is considerable occupational flexibility.

Influence of Castes

It should not be concluded, however, that caste has ceased to exercise any influence on the choice of occupations. Ideas about superiority or inferiority of occupations—and thus of superiority or inferiority of social status—are still quite strong. Although doing manual labour on one's own fields no longer has any social stigma attached to it in Sanoli even for Brahmins, service as an agricultural labourer under a landowner is still a mark of low social status. Brahmins and Gujars are unwilling to degrade themselves by resorting to this occupation. Only under acute economic pressure will they do so. Even here, the Gujars would prefer to do non-agricultural labour for an employer outside the village to doing it for an employer within the village.

Agricultural labour is thus mostly the preserve of the Chamars among the lower castes, and the indigent members of the intermediate castes which are mostly excluded from land ownership and cultivation. The lower castes, too, are painfully conscious of the inferiority and the stigma associated with shoe-mending and agricultural labour. It was reported that Chamars, whose traditional occupation is the making and mending of shoes, were now giving up mending of old shoes, considering it to be a degrading activity. They showed a distinct preference for cultivating partnership arrangements and certain other forms of independent or semi-independent forms of employment of labour in place of employment as hired agricultural labourers.

There are two important forms of cultivating partnership prevalent in the village, known as Bondha and Sajha cultivation. Under the Bondha form of cultivation the landowner sows the fields and thereafter entrusts the remaining agricultural operations to another person willing to be a partner. The produce is shared between the two partners, three-fourths of the produce accruing to the landowner and the remaining one-fourth to the other partner. These terms may vary from contract to contract. Under the Sajha system, partner A who owns a plot of land but is short of labour or bullocks cultivates his land in partnership with B who has no land or insufficient land but has other resources. The expenses of cultivation as well as the produce are shared on 50:50 basis between the two partners.

Thus the lower castes are keen to improve their social status by abandoning whenever possible those economic activities which denote a low social status in favour of activities carrying a higher social status.

Economic Barriers

THE economic barriers to this process in a backward economy, where opportunities for occupational mobility are seriously restricted, were seen to heighten the prevailing sense of inferiority and resultant frustration among the lower castes. Thus the caste factor derives strength from the backwardness of the rural economy which does not yet present any significant scope for employment opportunities outside agriculture. Even the prospect of non-agricultural employment drawing away and absorbing the surplus manpower, irrespective of distinctions of caste and traditional social status, is so far not in sight.

In this situation, the economic distance between the higher and lower castes is sustained and reinforced by the structural characteristics of the rural economy. Most significant in this connection is the inequitable distribution of land resources—that is the concentration of land in the hands of upper and certain sections of intermediate castes to the almost total exclusion of lower castes.

Of the total land in Sanoli, 91.7 per cent is held by the 65 households of Gujars and 6.2 per cent by the six Brahmin households. The picture is only slightly modified when we consider the distribution of land cultivated. It is seen that 88 per cent of the total land is cultivated by Gujars, 7.1 per cent by Brahmins, 0.9 per cent by Jogis, 1.2 per cent by Dhimans, 2.1 per cent by Nais, and 0.8 per cent by Churas. Inasmuch as land ownership is a mark of social distinction as well as economic stability, the inequitable distribution of land between the higher and the lower castes contributes to the polarisation of economic status and power.

Caste differentiation is closely intertwined with class differentiation. It is noteworthy that among the dominant caste of Gujars and also other caste groups, there exists an internal differentiation based on unequal distribution of land and other economic resources. To a certain extent caste hierarchy is coterminous with class hierarchy since the socially unprivileged or underprivileged castes also happen to be those deprived of the ownership of economic resources and providing the labour power in various forms for the operation and exploitation of these economic resources. In this sense caste and class tensions in the village are not mutually exclusive but mutually reinforcing.

Complex Process

RURAL change is a complex process, with many incongruities. On the one hand, one notices liberalisation in the attitudes of the privileged castes in directions favourable to the requirements of economic development. On the other, a retrogressive movement is evident in the attitudes of lower castes presumably in the absence of opportunities for enhancement of their social status. Caste continues to act as a drag on economic progress. At the same time, it derives strength from the backward nature of the rural economy. The village

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reality is moving towards the accentuation and not the elimination of caste tensions.

To the already existing caste tensions are added class tensions which may not be very marked at the present moment but their serious potentialities are undeniable. The unequal distribution of economic resources, denoting unequal opportunities for economic growth and prosperity, are likely to dissolve the homogeneity and cohesion of dominant and privileged caste groups and to contribute towards economic differentiation among them. The observations of a number of studies undertaken both by official and by non-official agencies in different parts of the country bear out these trends which have been emphasised here in the context of a single village. It is evident that if the existing socio-economic structure in the rural areas is left basically intact, economic development will become an instrument not of social and economic integration but of polarisation of economic and social power. The need, therefore, is to make significant progress towards associating the largest sections of the villages especially the underprivileged, with the control and operation of economic resources.

40 RAILWAY ENGINES TO BE BOUGHT FROM U.S.

India will import 40 diesel-electric locomotives from the U.S.A. this year. They will serve as models at the Banaras Locomotive Workshop to be set up during the Third Plan for manufacturing diesel-electric locomotives. The imported locos are equipped with 2,000 H.P. engines and have a maximum speed of 75 miles per hour.

YOJANA

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

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

Although published on behalf of the Planning Commission, *Yojana* is in no way restricted to expressing the official point of view.

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Films and the Plan

—Dr. R. D. Jain

Editorial

SEARCHING QUESTION

ARE things what we wish them to be?—A great and wise man asked us this question on the eve of his stepping down from high office. President Prasad went on to speak from his heart and suggest the answer. Inviting us to lay aside the cloak of self-satisfaction, and employing gentle yet firm words, he declared that "here, there and everywhere we come across things which are not to our credit and which it should be the duty of all of us to eradicate".

To begin with, let us look at politics, which is any nation's first business. We have brought a foreign plant, parliamentary democracy, and striven to nourish it. We have held three successful general elections and earned the world's plaudits. But is this plant strong enough? Have we given it the right soil and nurture?

The President was frank. Even in the elections, he said, there were reports and murmurs of things which should not have happened. Apart from the forms of democracy, what about the spirit? Democracy, the President pointed out, was not merely the rule of the majority through the open vote, but a system in which everyone feels confident and secure and is prepared to do his best for the rest. This implied three pre-requisites—one that the least affluent should have a chance to serve the nation; two, that there must be an abounding spirit of self-reliance on the part of the people, instead of dependence on government; and, three, that there must be restraint and readiness for compromise.

How far do we fulfil these conditions? The President was pained that elections were becoming costlier. The man with no assets other than ability and a record of service was finding it difficult to be elected. As for the atmosphere of sturdy independence, the individual 'swarajya' that the ethical books speak of was dwindling. Even for small things the people had begun to look towards the government. In regard to the third condition, namely the spirit of restraint, there was little evidence of it. Narrowness was rampant, leading us astray on every occasion and pretext—language, religion, inter-state boundaries, location of industries and projects, or the sharing of river waters. We had allowed economic development to add to frictions instead of realising that its great lesson was that all progress was the result of co-operative, co-ordinated effort.

Freedom, as the President feelingly has reminded us, is in danger of being dissipated. We must wake up to this fact, and set about equipping ourselves better for the responsibilities it entails. Else we shall miss the whole goal and lose even what we have achieved and gained. A golden rule for us is what Dr Rajendra Prasad gave us—that "the great question is the good of the country".

MAHATMA

New Revised Edition

By D. G. Tendulkar

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Nationwide Battle Against Smallpox

WELCOME THE VACCINATOR

If a vaccinator hesitantly taps at your door one of these days, do not get jump to the conclusion that an epidemic of smallpox has broken out in your locality. He comes to see you because the country is making an all-out bid to rid itself of this disease.

Until now it was only when a smallpox epidemic occurred in an area that we saw a sort of general mobilisation to vaccinate the threatened population. Of course, we have long ago adopted primary vaccination of new-born babies. This is supposed to be done before a child completes one year, but it has not been compulsory all over the country. Even where it is, defective systems of registration of births have led to a large number of children going unvaccinated. Our fight against smallpox up to now has not been thorough. That is how the disease shows up here and there.

Smallpox has recently become worldwide news—with Governments and people in far-off countries sitting up at the mention of the word, and health authorities doing round-the-clock vigil at immigration points. Smallpox has even put a strain on international relationships.

The World Health Organisation had in a way foreseen this. Four years ago, in 1958, it observed that India and East Pakistan constitute by far the most important breeding centres of smallpox in the world, and, with Burma, must be regarded as the most likely sources from which smallpox might be re-imported into countries which by sustained efforts had got rid of it.

In our villages smallpox continues to be a seasonal visitor. Our health

authorities say that it reaches epidemic form in the first six months of the year. There is another curious aspect to its visitations. This is its striking periodicity, the incidence being significantly high every five or six years. Public health authorities attribute this to the accumulation of susceptibles as a result of incomplete registration of births. The number of non-vaccinated infants keeps growing, on the one hand, and the immunity of primary vaccination wanes on the other, making conditions ripe for the outbreak.

PHASED PROGRAMME

AFTER Independence and since the start of the Plans we have intensified our anti-smallpox measures. The results have indeed been significant. During the eight years from 1950 to 1958, the number of attacks reported (not all cases are reported) fell from 1,27,633 to 1,06,501 and the number of deaths from 75,364 to 32,174. But 32,000 is still a heavy toll—and wholly unnecessary when it is possible to wipe out this disease entirely.

The Third Five Year Plan therefore expressed the national determination to undertake mass vaccination to cover the entire population before the next outbreak of the disease, and made a provision of Rs. 689 lakh for the National Smallpox Eradication Programme.

This nationwide programme was launched by some States in February. Others will start it during the coming months. Under the programme there will be a complement of about 60 vaccinators in each district under the supervision of a medical officer. Each team will also be assisted by

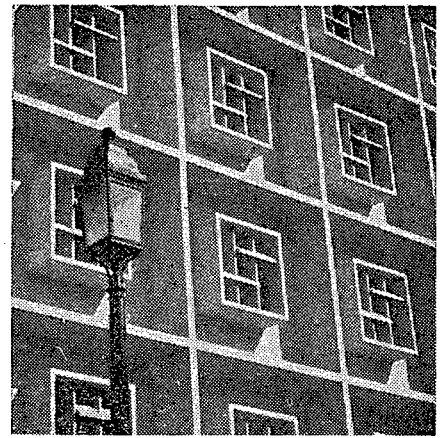
12 sanitary inspectors, 12 enumerators and two health educators. The plan is that such teams in a State should cover all the districts in two phases—covering one half of the districts in the first phase and the remaining in the second phase. Thus, the same staff and equipment can be utilised for the campaign in both phases.

Each of the 60 vaccinators in a team is expected to perform about 100 vaccinations a day. Besides, an attempt will also be made to utilise the services of village school-masters both for educating the rural masses as regards the benefits of smallpox vaccination and for vaccinating them.

Before a team starts work in an area, intensive education will be undertaken. Each team will include trained health educators, who will be equipped with a van fitted with a public address system. Trucks, jeeps and bicycles will be provided to keep the team mobile. Far more important than all these, each team will also have three refrigerators supplied to it so that the vaccine lymph can be kept cool and prevented from deterioration. How important this is can be realised from the fact that till now vaccination was being undertaken on a mass scale mostly in the cooler months so as to avoid deterioration of the vaccine lymph in transit from laboratory to field.

A central organisation in the Directorate-General of Health Services, New Delhi, and headquarters organisations in each State under an assistant director of health will be incharge of the operations.

(Continued on page 20)



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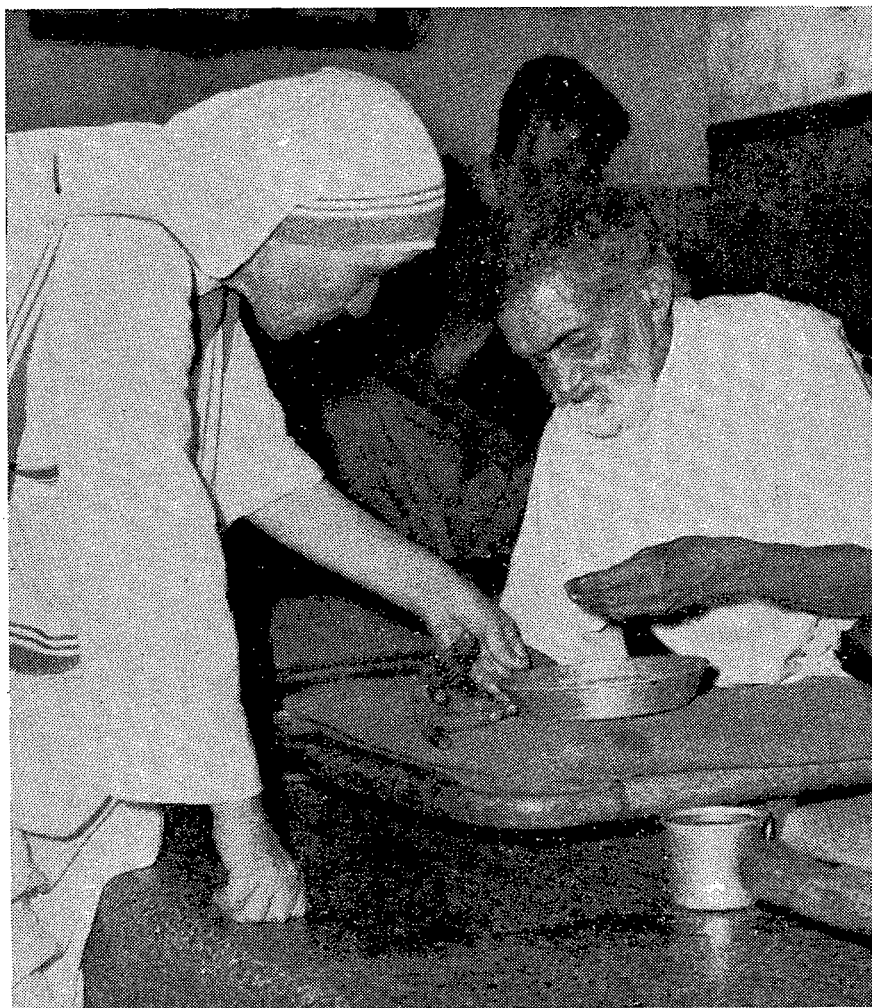
By
NIRBHAI SINGH

INDIA has not lacked social workers who devoted their life to the service of humanity. For them, serving the lowliest has been the highest form of serving their God. The Christian missionaries who came to India in the past few centuries greatly reinforced this age-old Indian tradition by their religious faith in social service. One such institution is 'Missionaries of Charity' of Calcutta which has rendered remarkable service for the past fifteen years.

Mother Teresa, the founder of the 'Missionaries of Charity', is a nun who came from Yugoslavia in 1928 to join the Loreto Community, an educational mission at Calcutta. After spending twenty years in teaching with the Loreto Community, she dedicated herself to the service of God's poor. In 1948, she started the 'Missionaries of Charity' all alone. Unruffled and untiring, Mother Teresa went on organising works of charity among the poorest and the lowliest of all castes and creeds. "I wish everybody could become a Roman Catholic, but that just cannot be, because only God can give the gift of faith. So I engage myself in making Hindus better Hindus and Muslims better Muslims by God's grace"—this is the spirit in which Mother Teresa works.

NETWORK OF CENTRES

DURING the past fifteen years, the little plant planted by Mother Teresa has grown into a big tree under which thousands of the forlorn and unfortunate find shelter. The



Mother Teresa helping a patient at 'Nirmal Hridaya'

institution now has fifty centres in Calcutta, and seven branches in other cities such as Ranchi, Jhansi, Asansol, Agra, Delhi and Ambala. Besides Mother Teresa, who spends all her time in attending to the needy, there are 150 sisters and over 300 voluntary workers. They work in eight leper centres, 13 schools in the slums, 17 Sunday schools, three commercial schools, six dispensaries including a chest clinic, a Shishu Bhavan for forsaken children and a 'Nirmal Hridaya'—home for destitutes in hopeless condition near the famous Kali temple in Calcutta.

The eight leper centres have so far given free medical aid to more than 4,000 patients and the six dispensaries treated 74,000 patients in

1960. The 13 schools in the slum areas have educated 2,893 children from the poor families. The 17 Sunday schools are attended by 2,000 children of the Catholic faith. The three commercial schools conduct courses in shorthand and typewriting for the needy educated women.

THE LAST RESORT

SPECIALLY notable is the work done by the Shishu Bhavan and the Nirmal Hridaya. The first takes care of unwanted children and mothers in distress. I saw about one hundred inmates in the Bhavan. The sisters or other workers on their round in the city pick up the unclaimed children from the road-side and bring them to the Bhavan. The distressed and

*The Institutions
Mother Teresa
Has Built*

forsaken women are also helped to rehabilitate themselves.

During the nine years since it was started in 1952, the Nirmal Hridaya has given shelter to 12,053 destitutes in their last days. These forsaken people are rescued from the jaws of death by starvation, disease or neglect; they are fed, treated and nursed back to life. In the last moments of their life, they have at least the satisfaction that they would not die neglected. Mother Teresa affectionately tends the open sores of these living skeletons whose very sight horrified me and disturbed my sleep for some nights. Those who are beyond cure are consoled by the Mother, the sisters and other attendants. Those who die are entrusted to the Hindu Satkar Samiti or the Anjuman or Christian organisations to be given a funeral according to their respective religious rites. No doubt some of them die—as help reaches them too late. But the number of those who survive is greater—about 60 per cent. During the past nine years more than 6,450 people have been helped back to life and for those who sought work jobs have been secured.



Mother Teresa

THE Mother maintains strict discipline in the Order. The sisters who come to this mission have to take a vow of chastity, austerity and obedience for the service of the poorest and the lowliest. Besides the ecclesiastical discipline, special training is given to them in nursing, treating lepers, teaching, and such other duties as they are expected to do. Above all, the spirit of service, which the Mother imparts to them, gives them the insight and sympathy for human suffering. They go round the

slums and other areas, visiting poor families, helping them in their needs, consoling those who are miserable and picking up those who need them most—whether a crying child, a helpless woman or a hopeless sick.

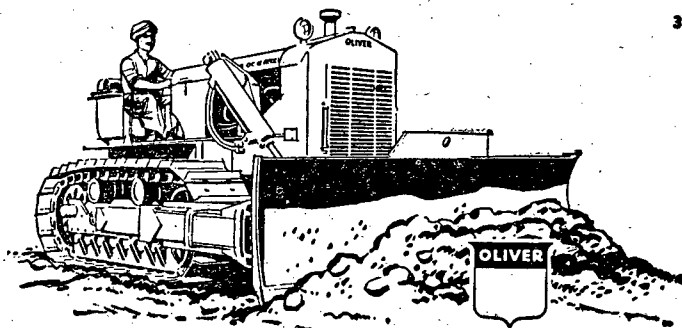
As a tribute to the dedicated and inspiring humanitarian work done by her, Mother Teresa was awarded Padma Shri this year. And she says, "Much work can be done provided it is done with love for God and His poor".

STATE TO MINE IRON IN ORISSA

The Union Government has allowed the Government of Orissa to undertake a project for the exploitation and export of two million tons of iron ore from a hitherto undeveloped area of the State. The foreign exchange earned from the export is to be invested in the mineral development programme of the State.

India will buy tobacco and maize valued at Rs 5.3 crore from the U.S.A. under P.L. 480. An agreement to this effect was signed in New Delhi on May 1. Sale proceeds to the extent of 85 per cent will be given back to India for development projects. The tobacco will be used for the manufacture of quality cigarettes in India. The maize will be utilised in the starch industry.

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THE MASTER'S VOICE

HIGH praise was showered on Dr Rajendra Prasad when he stepped down from the seat of power "to go back to where he came from". Of all the tributes, Dr Prasad will perhaps have been most touched by what the Prime Minister said at the public farewell at the Capital—that whenever the country strayed from its path, Dr Prasad had reminded it of the Gandhian and brought it back to the heritage right road.

Even before he became the head of the Republic, Dr Prasad was an acknowledged interpreter of Gandhian thought. And as President he rarely made a speech more penetrating and profound than his address to the Seminar on Gandhian Techniques organised by Unesco in Delhi some ten years ago.

The President's departure for his *ashram* is a fit occasion to recapitulate what he then said. It is a deeply-felt assessment of our ends and means, our endeavours and shortcomings :

GANDHIJ's name is associated with non-violence, with cessation of war, and I felt a kind of incongruity in my addressing this conference. I am supposed to be the head of a state which has not renounced war, which has not abjured violence, which still maintains her army; not only that, a state which has not accepted and implemented Gandhiji's economic programme either. What right had I, as head of that state, to address you, gentlemen coming from distant countries to know what Gandhiji did and wanted to do? But I felt again that while you could draw inspiration from what Gandhiji had achieved, you could draw guidance from what he attempted to achieve but did not achieve and left his work and his experiment incomplete. You could also draw some lesson from our success and perhaps even more from our failures.....

Gandhiji made the removal of the poverty of our people one of the fundamental planks in his active programme. At the same time, as far as I can judge, he was never enamoured of an undefined, indefinite, unlimited rise in the standard of our living as dependent upon external things. While he wanted that we should have our essentials of life, he also felt that no one was entitled to have more than the essentials. These essentials were not to be determined by the individual himself, but by other considerations.

One of these considerations was that what is essential for one person must be essential for others also. Therefore, so long as a thing is not available in such quantities as can be shared by all, it cannot be regarded as essential for anyone. In other words, Gandhiji insisted on a limitation of our physical and material needs. Again, he felt that in a society which is based primarily on a desire to extend and expand one's needs, violence cannot be avoided. He, therefore, wanted a society in which the principal factor would

not be the multiplication of wants or the means of supplying these wants in the quickest manner possible, but a society which would ensure to all what was absolutely necessary and at the same time would not create conditions which cannot but end in competition and, ultimately, in violence.

There are other factors also which create conflict. Conflict arises whenever some people want to force their own opinions upon others, be they religious opinions, or opinions relating to politics or any other department of human life and thought.....

Gandhiji did not start with a clear-cut programme. He took up individual questions as they arose from time to time. The biggest problem facing this country was the attainment of freedom. He, therefore, concentrated his energies on it. For attaining freedom, he insisted upon non-violent means. He was opposed to violence not only in action but also in thought and speech. Though he imposed these strict standards on himself, he co-operated with others who were not prepared to go so far, but who were prepared to observe non-violence in action while engaged in the freedom struggle.

Thus it was that he was able to gather round him a large number of people who would not have gone to him had he insisted upon non-violence in thought and words also. I know of very few people who were able to exclude violence from thought, and there were not a few who betrayed violence in words. But those /who actually betrayed violence in action were few, and that is how he succeeded. He was fortunate in that the soil of this country was specially suited to his experiment.....

There was another thing which gave us an advantage, although it was of very dubious value. We were disarmed; we were unable to fight with arms, and not a few of us saw in Gandhiji's method a way out of our difficult position. It was a doubtful advantage, because it weakened our faith in non-violence. Anyhow, we carried on and we succeeded to some extent.....

The question that we have now to tackle is whether the same method can be applied in dealing with tensions among nations and and within nations.

Unfortunately, and to our shame, to our indelible shame, Gandhiji was taken away from us just at the time when he would have been in a position to make this bigger experiment. We have instances in history of individuals who experimented with non-violence in their own lives and also taught others to experiment with it on a personal plane. It was, however, left to Gandhi to make use of this weapon on a large scale to settle differences between groups and between nations.....

I do not know what he would have said and what we would have done if he were alive today to guide us and to give us his inspiration. But I do feel that he made his position perfectly clear when he appealed to the fighting parties during the last war to desist from war. It will be wrong to imagine that he at any moment contemplated submission to wrong. That was against his whole nature, his whole being. What he objected to was submission to the lower instinct of our own nature, that is to say, submission to the sense of hatred, submission to a sense of retaliation, submission to a kind of cowardice, which cannot protect the individual or the nation without striking somebody else. He wanted that kind of courage which would stand the worst that the enemy could do, without ever feeling resentment against him. He would resist him to the last, and he would successfully resist him because the last step would be the loss of his own life. This would mean his victory and defeat of his opponent, because the latter could not get him to submit to his wishes. Unless some nation today takes such moral courage in its own hands and comes out with a clear-cut programme of no war under any circumstances, defensive or offensive, and no armament of any kind, the battle for non-violence will continue and is not likely to end in victory.

Some nation has to take that courage; I do not know who will. Evidently, today we are unable to do it although we claim to be the inheritors of Gandhiji's teachings, but somebody has to do it. There is a saying in our country that sometimes there is no light directly under the lamp, although there may be light all round. I hope we shall not prove the truth of that statement.....

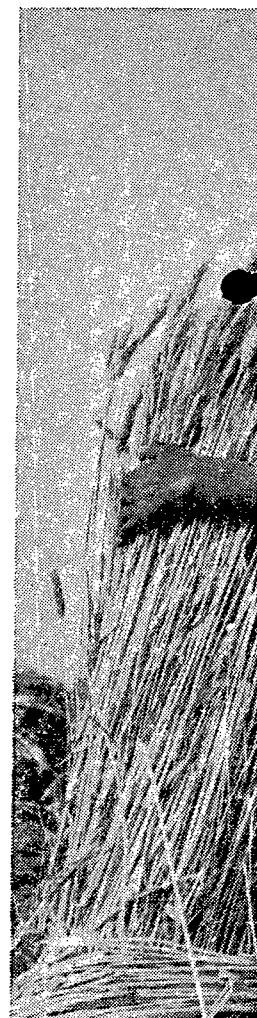
WHEAT has been grown in India since the days of the Mohenjo-Daro civilisation. A native of the Middle East, this cereal attracted the attention of man who found he could make both leavened and unleavened bread from it. Thus, within a short time after man developed agriculture, wheat, with rice, became the most important among the plants brought under domestication.

The development of a great crop plant goes hand in hand with the development of a great civilisation. No wonder then that grains of a unique species of wheat found only in the area comprising the Punjab, North-West Frontier Province and Baluchistan, have been discovered in the Mohenjo-Daro excavations.

This species, called *Triticum sphaerococcum* botanically (right), is no longer under cultivation but is preserved in agricultural research institutions for some valuable charac-



Old and New in Wheat



LEFT : A new Pusa wheat (high side an old strain. RIGHT : developed by subjecting seeds to ears keep



Mohenjo-daro wheat grown at the IARI.

Tougher, Richer, More Yielding (and Sometimes Bewhiskered Too)

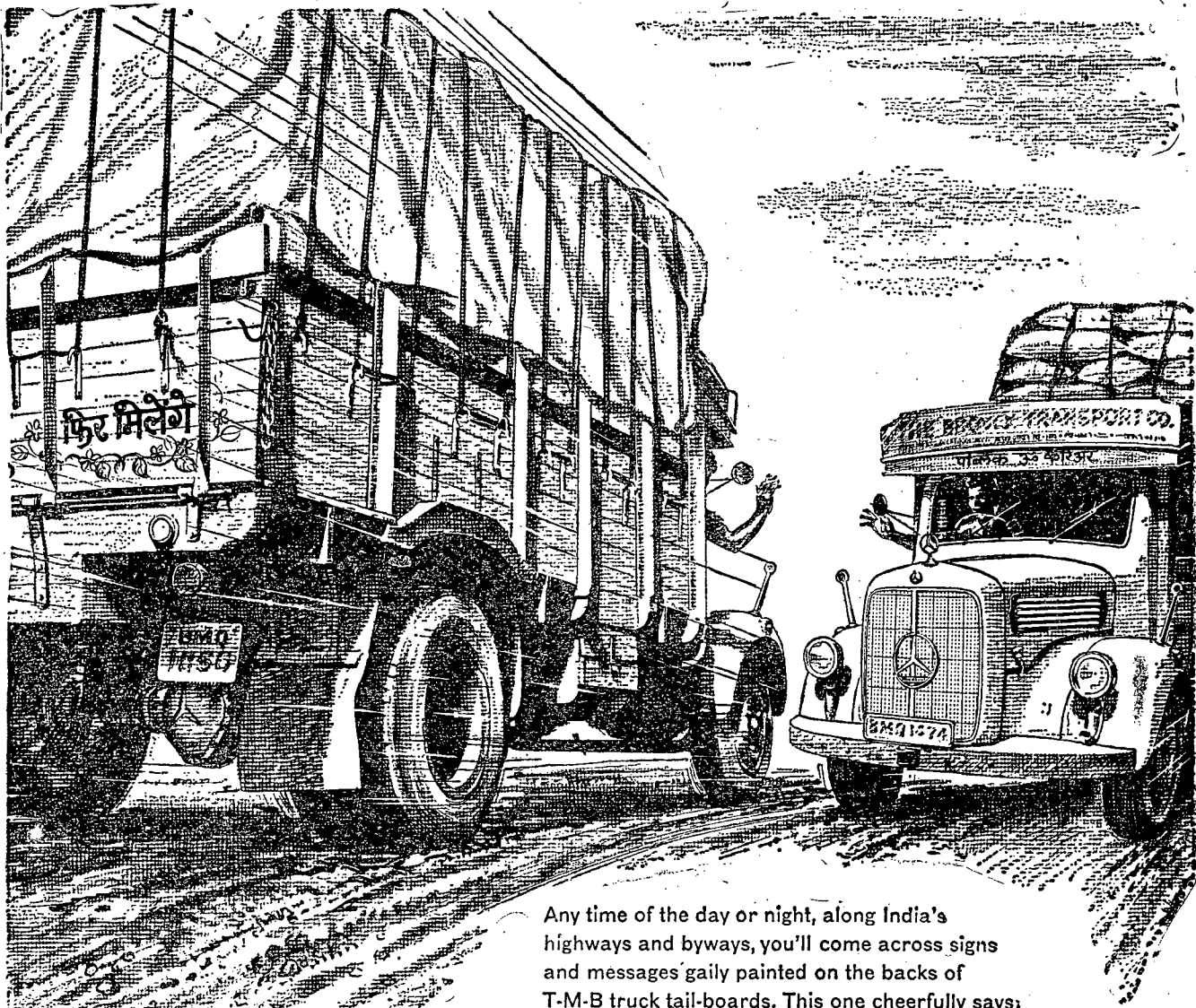


45 maunds per acre) side by side by the Pusa variety with whiskers. These whiskers on the away.



teristics it possesses. It has a short and stiff straw, ability to withstand drought and round grains ideal for milling. However, it has low potentialities for yield (giving only 5-10 maunds per acre) and high susceptibility to diseases, particularly rusts. With progressive evolution in agriculture, these wheats have been

displaced by the species *Triticum aestivum*. Some of the new varieties bred at the Indian Agricultural Research Institute (I.A.R.I.), New Delhi, have a high degree of resistance to diseases, grains containing as much as 10 per cent protein and a high yielding ability (about 45 maunds per acre).



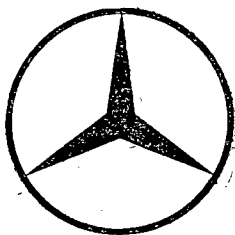
Any time of the day or night, along India's highways and byways, you'll come across signs and messages gaily painted on the backs of T-M-B truck tail-boards. This one cheerfully says:

..phir milenge

"we'll meet again..."

Ahead of this driver lies an arduous journey over rough roads, steep gradients and marshy ground, but his reliable T-M-B overcomes these hazards without a protest! Soon he will be back again with his speedy, economical STAR to haul yet another load of fortune.

To the recognised power and performance of Tata-Mercedes-Benz trucks are now added new improvements to bring you greater benefits.



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(T. 1049)

Oh Shalimar !

RARELY do government circulars get lyrical. We saw one that does, although the words are not particularly well chosen. Emanating from the welfare organisation of the Union Home Ministry, it deals with plans made for holiday trips to Kashmir for government employees. Here it goes (with no changes in the punctuation or spelling) :

"Summer has set in—Vacation has commenced—Rest at a hill station is the long awaited programme and holidaying in Kashmir is a dream for many—Young and Old—Single and Married. All the more so for a Government employee with his restricted income. A visit to a hill station at a small cost is a real welfare benefit promoted by the Government of India."

This First Movement is followed by details of how much it will cost and how to register.

Meanwhile, how about a Camp for improving Welfare Literature?

Museum Hours

VILLAGERS who go to the big city for sight-seeing make it a point to visit its museum. Those who see them file past the ikons, the skeletons and the potsherds are invariably touched by the faith of these people. Are they performing a ritual or is their curiosity or capacity to know really being aroused? A Unesco booklet says that museums should not be regarded as sanctuaries for scholars and specialists but as a means of general education. That is how they have always been used, both here or abroad. Going to the museum, in places where there is one, is a 'must' in the school year—now and when we were children ourselves.

But does the typical museum in our country enable its visitors to get the best out of it? In particular, do our museum officials exert themselves to educate the illiterate? A writer in "Vigil" says they don't. The truth is that this is not a matter which the museum authorities are careless about, but their progress

in this direction is limited by resources. There aren't enough guides to take people round. Again, there is a case for not being too obtrusive or vocal. The secret of good museum display is that the exhibits should speak—and not the exhibitors.

However, we can think of one museum reform which will enhance their usefulness—a change in their working hours. The principal museums in our country work from 10 a.m. to 5 p.m.—like any Government office, except that they are luckily open on Sundays. But would it not be better if all the museums opened earlier (like the Madras museum) or remained open later in the evening (like the National Gallery of Modern Art)? It is always a puzzle to outsiders as well as a number of domestic critics why our country refuses to take enough advantage of the cool hours.

PLAN QUIZ

1. A) What is the number of tractors engaged in agricultural operations in India?
B) How many tractors does India produce every year?
2. Fill in the blanks:
A) India produces tons of sandalwood oil every year.
B) The export of sandalwood oil fetches foreign exchange of Rs.....annually.
3. A) The total population of livestock in India, according to the 1961 count, was about
a) 306.50 million, (b) 336.53 million, d) 400.10 million.
B) The total number of cattle in India in 1961 was a) 175.67 million, (b) 198.05 million, (c) 158.65 million.
4. What are the main features of the Indo-Japanese Prototype Production and Training Centre at Howrah?

(Answers on Page 28)



IGNORAMAN

Wants to Know

If Our Public Enterprises

Will Show Their Teeth

When Their Teething

Troubles Are Over

Luring the Buyer

IN the old days, the third of our four castes, traders, had little need for window display. In these days of competitive co-existence, where the customer is divine and has to be wooed, the art of display has a special function. And some of the shop windows in our cities are beginning to be as modish as any elsewhere in the world. What is specially welcome, these fashionable displays make a wide use of our old handicrafts.

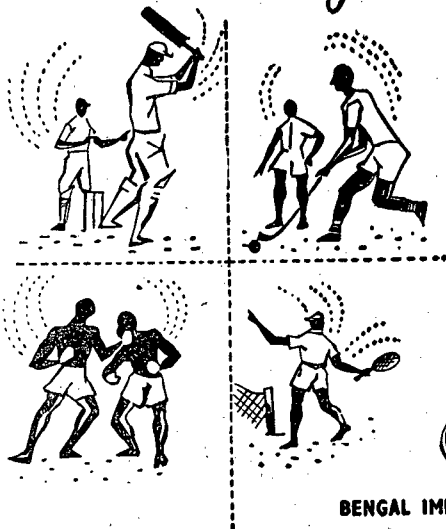
It is appropriate, therefore, that the All India Handicrafts Board should have begun organising refresher courses in this art. The first course started in New Delhi on April 10, with lectures by art critics and display experts, and practical demonstrations. Six States, as well as the Handloom Co-operative Marketing Society and the Handicrafts Board deputed people to the course. It is hoped that on going back they will make their State craft emporia more attractive places. With the growth of the tourist industry it pays to be trim and stylish.

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and vigour. Pleasant to take, Vino-
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and tones up the system.

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SYAMA SASTRI

Great Southern Composer Who Was
Born Two Hundred Years Ago

T. L. VENKATARAMA AIYAR

THE period of time ranging from about the middle of the eighteenth century to the middle of the nineteenth is looked upon by all lovers of classical Carnatic music as its golden age. It was during this period that the three great composers, Syama Sastri, Tyagaraja and Muthuswami Dikshitar flourished. They are familiarly known as the Trinity of South Indian music, an expression which brings out the special position occupied by them in the world of music as also the reverence in which they are held.

We are now celebrating the bicentenary of the birth of Sri Syama Sastri. His life history is briefly told. He was born at a place called Tiruvarur in the district of Tanjore in South India. There is at this place a famous temple dedicated to Lord Siva and the Devi, and it is as colossal and magnificent as it is ancient. From the earliest dawn of history Tiruvarur has been the home of great saints and eminent musicians. One of them, Sundaramurthi Nayanar, is one of the three inspired composers of hymns in Tamil known as *Thevaram*. It is a remarkable coincidence that all the three great composers—Syama Sastri, Tyagaraja and Muthuswami Dikshitar—should have been born at Tiruvarur and within a few years of each other. And there are those who see in this efflorescence of classical music a divine dispensation.

Syama Sastri's ancestors belonged to Kanchipuram, about forty miles from the city of Madras. This again is a place of great antiquity and renown. There are in this place two famous temples, one dedicated to the Devi called Kamakshi and the other to Lord Vishnu called Varadaraja. One of the notable features of the Kamakshi temple is that the worship is performed according to Tantric rites and this service was entrusted, according to ancient tradition, by the great Sankaracharya himself to the ancestors of Syama Sastri. During the unsettled conditions which followed the collapse of the kingdom of Vijayanagar in South India, the ancestors of Syama Sastri removed for safety the golden image of Kamakshi to Tiruvarur and it is here that Syama Sastri was born. A few years after his birth, his family moved to Tanjore at the invitation of the Maharashtra king of that place, who built a temple there for Kamakshi and settled the Sastri family in an *agraharam* behind the temple.

Syama Sastri was well versed in Sanskrit and in the Telugu and Tamil languages. He learned music from



a *sanyasin* who initiated him in certain aspects of Tala not ordinarily known to musicians. Syama Sastri spent all his life time in performing service to the Devi at the temple and singing songs in praise of Her. The king of Tanjore held him in such great reverence that he would go to his humble residence to seek his advice and blessings. Syama Sastri died in 1827 leaving behind him a son, Subraya Sastri, who is also a well-known composer of Kritis.

THE classical music of India has two features which distinguish it from the Western system of music. They are its Ragas and Talas. A Raga, according to our concept, has a persona formed of sounds with distinctive features and having an existence independent of words or their sense. There is nothing corresponding to this in Western music. As for the Tala system, while rhythm plays an important part in all musical systems, the value attached to it in our system is something unique. We have developed a variety of Talas based on differences in Angas and a whole literature has grown up on Tala Alankaras. According to our notions, there can be Tala pictures of different patterns analogous to Ragas, and exist independently of songs. Ragas and Talas represent the culmination of creative art in Indian music, and they are rightly regarded as the two most important elements of classical music. The greatness of a musician is judged by his ability to portray Raga features in all their fidelity and richness, and likewise the greatness of a composer is judged by the excellence of his composition as embodiments of Raga forms and Tala patterns. When we speak of Syama Sastri and his two great contemporaries as a classical Trinity we have

in mind the surpassing beauty of their composition as expression of Ragas and Talas.

THE compositions of Syama Sastri are not very numerous. About two dozens of them are well known and another like number can be pulled out of obscurity. Numerically therefore his output may be considered poor. But what matters in art is quality and not quantity and it is here that Syama Sastri claims a place amongst the foremost composers.

Speaking first about the Raga element in the Kritis of Syama Sastri, what strikes one is that they are mostly in well-known and familiar Ragas like Ananda Bhairavi, Sankarabharanam, Kalyani, Todi, Paraju, Saveri and the like. As a rule he avoided rare Ragas, and there is an authentic tradition that he did so with a set purpose. He was of the view that no Raga should be rendered unless the musician had a real knowledge of its form or Chhaya, as distinct from its Swaras, and that the temptation to sing rare Ragas might result in the emphasis being shifted from the Chhaya of the Raga to its Swaras, from the soul to the body. Recent trends in our music have shown how well founded his fears were. The exposition of Ragas in the Kritis of Syama Sastri is not very elaborate. The melody is not involved nor does it revel in manipulations of Swaras. It is simple and direct and every bit of it is suggestive of the Raga form. If for example a piece is in Raga Saveri, every musical phrase in it will be Saveri and there would be nothing in it which would be extraneous to it or neutral in complexion.

Syama Sastri has also composed some technical compositions called Swarajatis. They are intended to be the exposition of Raga forms and contain both Swara passages and corresponding Sahitya. Starting with the Mandra Sthayi and moving up progressively to Tara-sthayi, they show a magnificent build-up of the Raga structure. We have three of them in Ragas Bhairavi, Todi and Yadukulakambodi. These are masterpieces in their line.

BUT it is Tala that is the forte of Syama Sastri. His command of intricate time measures is something without parallel. Even simple Talas like Adi assume in his handling a new form and a new complexion. His favourite Tala is Misra Chapu. A peculiarity about his rendering of it is that he often reverses the usual setting of the Tala as 3 and 4 into 4 and 3 as in the pieces "Thalli Ninnu" in Kalyani, and "Ninnu

Vinaka" in Purvi Kalyani, and the effect of it is to infuse in what would otherwise be a dull and prosaic melody, new life and vigour.

While talking about the excellence of Talas in the Kritis of Syama Sastri we should avoid confusing it with mere mechanical skill in manipulations of Tala phrases which is unfortunately one of the besetting evils of the present-day concerts. With Syama Sastri, Tala phrases are not mechanical permutations and combinations, but poetic scintillations and, what is more, they so naturally blend with Ragas that the melody of the songs, though simple, acquires in association with the Talas a beauty all its own. It is in this respect that Syama Sastri remains unequalled.

WHILE the excellence of the Kritis of Syama Sastri lies primarily in the beauty of his Ragas and Talas, they are also impressive for their emotional content. Syama Sastri was an ardent worshipper of the Devi, and dedicated most of his Kritis as offerings to Her. We have not in his compositions those complex emotional outbursts which are such a conspicuous feature in the Kritis of Tyagaraja. The emotional appeal is simple. It is like unto that of a child crying to its mother to come to its rescue.

The Kritis of Syama Sastri are mostly in Telugu. A few of them are in Sanskrit and a melody in Raga Kalyani has Sahitya both in Sanskrit and in Tulugu. There is at least one piece of his in Tamil in Raga Gauli Panthu. It is a notable feature of the Kritis of Syama Sastri that the vocabulary used in them is not very extensive. But it is remarkable that though the same set of words is repeated in several Kritis, the appeal which they make differs according to the melody in which they are cast.

The compositions of Sri Syama Sastri have held the field now for over a century, and have contributed along with the Kritis of Tyagaraja and Muthuswami Dikshitar, to the spread of a knowledge of classical music in South India. Let us then pay our homage to the memory of one who was a great Bhakta of the Devi, and who was a musical genius and has left behind a rich heritage of classical music.

(Mr. Justice Venkatarama Aiyar is a retired Judge of the Supreme Court. This was delivered as a talk from AIR Delhi on May 4.)

Planning Commission Newsletter

(Continued from page 9)

EVERY arrangement has been made to ensure the flow of adequate and timely supply of vaccine to all the teams. There are at present 13 vaccine-producing institutes situated in eleven States. Their total capacity is about 75 million standard doses. For executing the National Smallpox Eradication Programme we will be requiring about 250 million such doses. While steps have already been taken, through

increased grants-in-aid from the Centre, to step up the production of vaccine to the required quantity, the Government of India has also accepted the generous offer of the U.S.S.R. of 250 million doses of freeze-dried vaccine in eight instalments of about 31 million doses each. The first instalment is already under way. There will therefore be no difficulty in ensuring adequate supply of vaccine to execute the

National Programme.

The Centre is meeting the entire non-recurring expenditure and 75 per cent of the recurring expenditure on the programme.

So, when the vaccinator knocks at your door, welcome him, and co-operate with him. He seeks your help to banish a scourge, and by helping the success of the National Smallpox Eradication Campaign, you will be saving many people from disfigurement and death.

(See also page 27)

Book Review

TENANCY REFORM IN SAURASHTRA *And Its Lessons*

Effects of Land Reforms in Saurashtra
(Report of a Survey sponsored by Research
Programmes Committee, Planning Commis-
sion, New Delhi) by R. R. Mishra; Vora &
Co., Publishers Pvt. Ltd., Bombay-2, First
Edition 1961, pp. 240, Price Rs. 12.00

SINCE Independence, the various State Governments have put through, in terms of a general land reform policy recommended by the Planning Commission, legislation for the abolition of intermediaries like Zamindars, Jagirdars and other similar tenure holders between the State and the actual tillers of land. Although Zamindari abolition is only the logical culmination of a large body of pre-Independence tenancy legislation defining and even enlarging the rights of occupancy and quasi-occupancy holders of land under the intermediaries, it is now mostly completed in a manner that has brought a triple credit to the State Governments: credit for guaranteeing fair compensation to the displaced intermediaries; credit for satisfying the aspirations of occupancy and quasi-occupancy ryots at little or no cost; and credit for largely doing away with the multiplicity of tenures and converting some of the old tenures into, and approximating others to, the Ryotwari tenure.

It was in erstwhile Saurashtra, now merged with the State of Gujarat, that reforms connected with the abolition of intermediaries such as Girasdari (landlords with proprietary rights over the land) and Barkhalidari (who were merely allowed the use of lands granted to them without full proprietary rights) tenures were implemented in a record time of four years, in an atmosphere of mutual understanding and without creating much bad blood.

The achievement of the Dhebar Government in the sphere of land

reform was specially remarkable because of the bewildering ramifications in the system of land tenures and tenancy practices which had resulted from the existence of large number of princes, chieftains, their followers and dependants; and also because systematic land records were not available for large areas. Nevertheless, land reforms in Saurashtra could not perhaps have been implemented so quickly and so peacefully but for the liberal scheme of compensation and the vital role played by the Saurashtra Central Co-operative Land Mortgage Bank set up on the recommendations of the Agrarian Reforms Commission. But haste put a severe strain on the special Mamlatdars who, in a large number of cases, decided cases by the rule of the thumb and rough and ready compromise solutions.

THE study under review, sanctioned by the Research Programmes Committee of the Planning Commission in 1954, was undertaken soon after the implementation of the land reforms in Saurashtra had been completed; and as such the results of the study do not reflect the social, political and other side-effects of the reforms which take fairly long time to manifest themselves. Of 4,400 villages in Saurashtra about 1,700 were alienated villages where the impact of the land reforms was most significant; a little over 2,800 villages were Khalsa villages where both the crop share system and cost assessment system were prevalent; and a large number of villages were unsurveyed. For the purpose of proper assessment of the effects of land reforms, the stratified sampling method was adopted for the Survey and 64 villages belonging to different categories were selected, greater weightage having been given

to those villages which were affected most by the land reform measures.

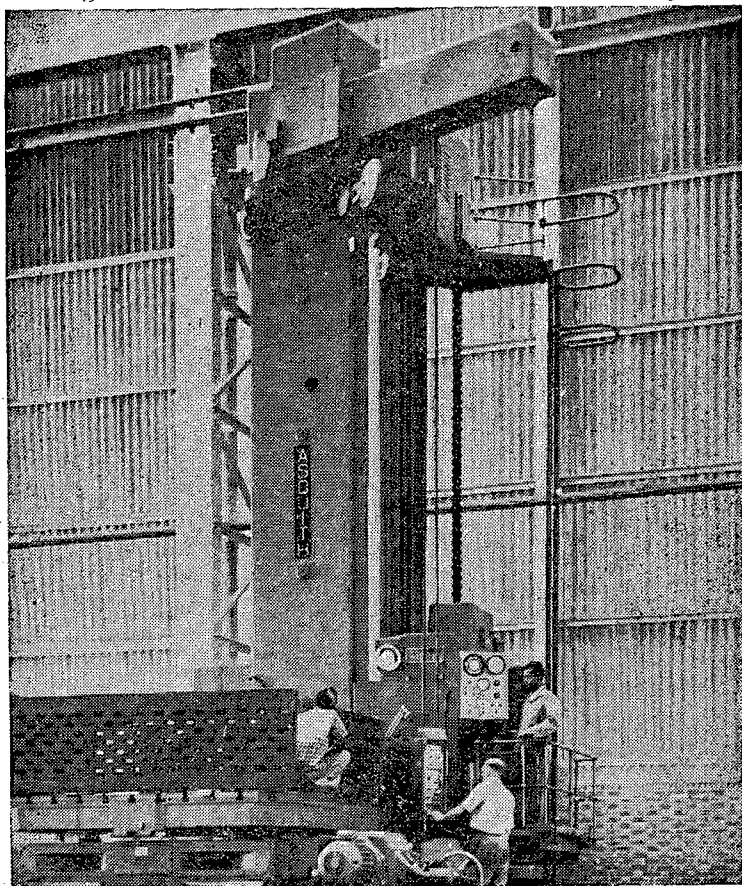
As soon as the State was formed on April 15, 1948, the Government of Saurashtra promulgated a number of Ordinances in quick succession granting full occupancy rights to all the cultivators in the unalienated villages and stopping arbitrary evictions in the alienated villages. In May 1950, the Government of India appointed the Agrarian Reforms Commission to report on the agrarian conditions in Saurashtra. The Commission reported in December, 1950, and gave the verdict that the Girasdari and Barkhalidari systems of land tenures should be abolished forthwith. Armed with the recommendations of the Commission the Government of Saurashtra lost no time in putting through, one after another, the Saurashtra Land Reforms Act 1951, the Saurashtra Barkhali Abolition Act 1951 and the Saurashtra Estates Acquisition Act 1952 and a number of other beneficial legislations in subsequent years.

Special Aspects

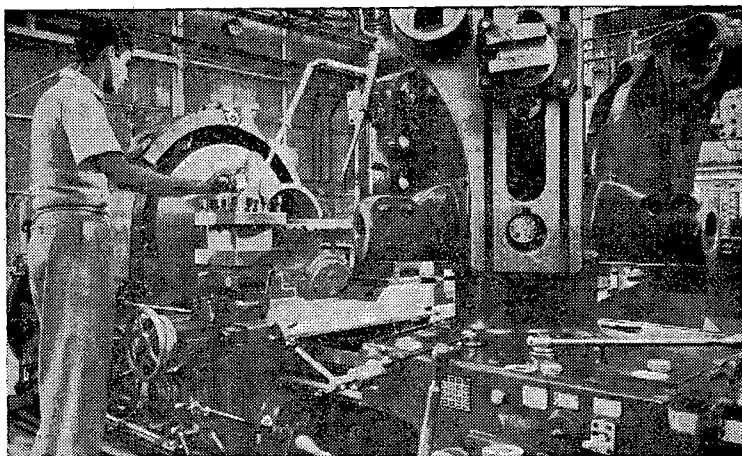
THREE aspects of land reforms in Saurashtra, however, deserve special attention, namely, the cost of the reforms; the part played by the Saurashtra Central Co-operative Land Mortgage Bank; and the impact of the reforms on the economic conditions of the cultivators.

The total cost of the land reforms was computed by the Government at a little over Rs 10 crore over a period of 21 years. The total acreage involved was 29,00,000. Thus the cost per acre came to about Rs 85 which is much higher than the cost of land reforms per acre in other States. The high cost is accounted for by the liberal scale of compensation and annual rehabilitation grants paid to the Girasdars and Barkhalidars. Thus, in those cases where the Girasdars had to transfer land to their tenants they got compensation equal to six times the assessment from the tenants and also annual rehabilitation grants from the Government equal to the assessment on the land transferred. In evolving the scale and method of payment of compensation the Government of Saurashtra not only did not strictly adhere to the recommendations of the Agrarian Reforms Commission but also made considerable departure from practices

(Continued on page 28)



6' spindle ram-type horizontal mill and boring machine



No. 14/36 combination turret lathe installed in the AVB light machine shop

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YOU ASK US

How Public Enterprises are Managed

QUESTIONS from Mr Jugal Kishore Shah, Jhunjhunu (Rajasthan).

1. How are the public sector enterprises organised and managed?
2. Give names of the various public sector enterprises which have been established since Independence and the total amount of capital invested in them.

ANSWERS. 1. There are three categories of public enterprises from the point of view of their organisation and management:

1. The departmental undertakings—these are run by the Ministries or Departments concerned in accordance with the powers delegated to the management by the Ministries. For instance, the Chittaranjan Locomotives and the Integral Coach Factory, Perambur, both under the Ministry of Railways.
2. Statutory Corporations—these are formed under special Acts passed by Parliament. The organisation and management of these corporations are governed by the powers conferred upon by the respective statutes. For instance, the Damodar Valley Corporation and the Oil and Natural Gas Commission.
3. Government Companies—these are registered under the Indian Companies Act, 1956 and in them the Government owns at least 51 per cent of the share capital. The organisation and management of these companies are governed by the Companies Act, the Memorandum and the articles of the Association. For instance, the Hindustan Steel Company and the Heavy Engineering Corporation.

2. The names and other details of all the public enterprises cannot be given for want of space under this column. However, the following

publications may be referred to in this connection:

1. Review of the First Five Year Plan (Pp. 204-205)
2. Second Five Year Plan (Pp. 417-420)
3. Third Five Year Plan (Pp. 493-501)
4. Principal Public Sector Undertakings in India, published by the Central Statistical Organisation, Cabinet Secretariat, Government of India, New Delhi.

PUBLIC PARTICIPATION IN STATE UNDERTAKINGS

QUESTION from Shrimati Bharati Bhagwat, Civil Lines, Kanpur.

Why does not the Government facilitate the people to buy shares in public enterprises, say of Rs 50 each, to encourage public participation, promote saving habits and help the State raise funds required for development projects?

ANSWER: The question of public participation in public enterprises was brought forth in its report in 1958 by the Krishna Menon Committee on Parliamentary Supervision over State Undertakings. Since then, it has been considered at different Governmental levels and is still under consideration.

PRINCIPLES OF REGIONAL DEVELOPMENT

QUESTION from Mr S. Das, Jagdeeshpur, Dist. Raipur (M.P.)

What are the broad principles of regional planning?

ANSWER: The broad principles of regional planning are: (1) balanced development of different parts of the country, (2) extension of the benefits of economic progress to the less developed regions, and (3) widespread diffusion of industry. "Expansion of the economy and more rapid growth increase progressively the

Questions from readers on planning and development will be answered on this page. It might be noted that the purpose of this service is to provide information. Trade queries will not be entertained.

capacity to achieve a better balance between the national and regional development", states the Third Plan. "As resources are limited, frequently advantage lies in concentrating them at those points within the economy at which the returns are likely to be favourable. As development proceeds, investments are undertaken over a wider area and resources can be applied at a larger number of points, thereby resulting in greater spread of benefits...The process is a cumulative one, each stage determining the shape of the next. In some fields, as in industry, intensive and localised development may be inevitable."

To achieve the balanced development of every region, the resources, skill and capital of the region are fully utilised. "In each region the nature of the problem and the impediments to rapid development in particular fields should be carefully studied and appropriate measures devised for accelerated development," directs the Third Plan.

The manner in which the goal of balanced development is achieved and the stages of such growth may not be identical in all the regions. However, the following pattern is generally observed:

- (a) Priority is given to programmes like agriculture, community development, irrigation and local development works;
- (b) Basic facilities like power, water supply, transport and communications, training institutions, are provided;
- (c) Programmes for the expansion of village and small industries are undertaken; and
- (d) Location of industries is determined not by the availability of raw materials and other natural resources alone, but consideration is also given to the needs of the region in the perspective of balanced national development.

Tribal Welfare

(Continued from page 5)

In the midst of these handicaps, every effort is being made to promote education. Primary schools are opened where the children get education and books and even meals, all free. Large sums are spent on giving scholarships to students both in the lower classes and for pursuing high school and college education.

The programmes place emphasis on vocational training of tribal children, because it not only helps them to earn more but is also suited to the temperament of the many tribal people with their craft traditions. Industrial Training Institutes specially meant for tribal boys seek to utilise this background to teach them modern crafts. During the Second Plan, five of these Institutes started functioning—at Korba (Madhya Pradesh), Ranchi (Bihar), Imphal (Manipur), Gauhati (Assam) and Takatpur (Orissa). These Institutes give training in trades like blacksmithy, carpentry, fitting, turning, moulding, wiremanship and welding. The trainees get a stipend of Rs 50 a month. Tuition is free. At the Korba Institute, which I visited, I found trainees who had come from 17 districts of Madhya Pradesh. Since its inception in February 1959, the Korba Institute has turned out about 300 trainees in three batches, most of whom have already found employment in the Heavy Electricals at Bhopal, the Bhilai Steel Project, the Rourkela Steel Project and the collieries of the National Coal Development Corporation.

Ashram-type schools are especially suited to the tribal environment. The running of such schools is encouraged particularly through voluntary organisations.

SOCIAL SERVICE

VOLUNTARY organisations have a very important role to play in the welfare of the tribal people. In fact they are at an advantage over Government agencies. The tribal people are more trusting and free with them. The personal example of the social worker, especially one who has a missionary spirit, wins their approbation and ready response. Social organisations are, therefore, given financial aid and other facilities to run schools and work in the tribal areas.

As the work of tribal welfare is to continue for more than a generation, the Third Plan envisages a cadre of “public servants and social workers having intimate knowledge, imbued with sympathy and trained in carrying out the tasks allotted to them...A body of trained persons would spend their entire period of service among the tribal people, so that their knowledge, experience and sense of identification would become a vital factor in assuring rapid and uninterrupted development”.

If such a cadre was extended to field workers, Pandurang Vithoba Deshmukh is bound to find a place in it. Deshmukh Guruji, as he is called, and his wife are teachers in the primary school at Salona, a tribal village of 450 people, near Chikhaldia, the hill station of Vidarbha. Dressed in simple clothes—a *chudidar pyjama*, shirt and a coat that has seen many years—Deshmukh is so unpretentious in his manners and he has so identified

himself with the Korku tribals that it took me some time to discover what boon he has been to the village. He does not speak about himself when he narrates what the villagers have achieved. But during my talks with the villagers, I could see that he was the guide and inspiration behind them. He is respected as much as the headman of the village.

BLESS THEM ALL

THIS small village shows in a nutshell how the tribals have benefited by the various development activities and how they are gradually accepting the new ways of life. The thatched huts have a clean look and Deshmukh Guruji distributes medicines to the sick. He not only teaches the young boys and girls of the nearby villages but also helps the adults by reading and writing letters and documents for them. He has arbitrated in their quarrels—even at the risk, earlier, of receiving blows—but the quarrels have subsided now. The children at school get midday meals in addition to free education and books.

Tenancy rights have been conferred on the tribal peasants. Some of them have received improved implements and seeds as gifts from Government. A co-operative dairy and a co-operative forest labour society are coming up.

A new well has been dug in the village. New houses are to be built. Each house will cost about Rs 1,000 of which 75 per cent will be borne by the Government. In the first instance 23 such houses are to be built.

The Sarvodaya Samaj is doing social service in the area. It has built an approach road, half a mile long, to Salona, which is situated on the main road. The Samaj also runs schools and dispensaries in the surrounding villages.

A change is taking place in the social attitudes and habits. I saw a tribal mother bathing her children. Deshmukh Guruji told me that bathing had not been very popular with the villagers until recently. The most wonderful achievement of the village is total prohibition, for which it was awarded a shield. With Korkus, like other tribal people, liquor is a part of life, indispensable to religious rituals. For the last two years, however, not a drop of liquor has been seen in the village. *Mahua* trees, from whose flowers liquor is distilled, are left well alone.

Tomaji, the village headman of unpredictable age—may be about a hundred—, still speaks of wine with a relish; yet he has no grudge against prohibition. He is convinced that no wrath of God is incurred by discontinuing liquor in rituals. Tomaji is now too old to take active part in the village activities, and his wife has gone blind with age. Yet he cannot sit idle. He works in the field. When I went to call on him, he was taking a jar of water from a distant stream. Tomaji stands by Deshmukh Guruji and the villagers in their new effort. He is grateful for whatever is being done for his people in Swaraj. His body quivers in rage when he describes the old days when Korku men were in danger of being whipped to do forced labour and the women were insulted. “Happily all this has now ended”, Tomaji says with a glint in his ancient eyes, “The honour of our women is now safe. Good things are taking place. May the Mother Goddess bless them all!”



How to Get a Better Price for Cotton

FARMING NOTES

*ICAR Agriculture
Information Service*

Some farmers obtain a good price for their cotton while others do not. The reason is simple. Price depends on how clear you pick and pack your cotton. As the cotton experts stress, farmers should develop "clean habits" in handling cotton. Only then will they be able to get more profits from their produce. The "clean habits" are:

1. When cotton bolls burst, pick your cotton with care so that no dry leaves or other foreign matter gets mixed with it.
2. Dry the picked cotton in the open and clean the *kapas* so that the bolls damaged by insects are separated.
3. The cotton gin should be thoroughly cleaned. Insist on getting back the seed and lint separately. Also take care that your lot is not mixed with that of others.
4. If you grow both *desi* and American cotton, have them picked, ginned and pressed separately. Remember, if you mix good cotton with an inferior stuff, you will get the price of the inferior quality for both.
6. Don't soak your cotton in water or add any foreign matter for getting better price. People who do that always lose.

HINTS ON CANE CULTIVATION

THE ploughing of the land where Adsali cane is to be planted must have been completed by this time. Wherever it is not yet completed the cane-growers should

complete their second ploughing immediately. The ploughed land should be pulverised by Norwegian harrow, disc harrow or a log harrow. During the operation it is quite necessary that half the quantity of the recommended *hasal* manure is applied and the remaining applied in the furrows. The recommended dose of the *hasal* for the Adsali crop is 40 cartloads per acre. Short supply of farm-yard manure can be supplemented by cane trash compost and green manuring.

As compared to farm-yard manure, the cane trash compost is cheaper, superior in quality and less infested with weed seeds. For details of making this compost, the cane growers are advised to contact the nearest Agricultural Officer working under the Sugarcane Development Scheme.

The soil requires maximum water during the month. The crop should be irrigated copiously at an interval of eight to ten-days. Care should also be taken in respect of pre-seasonal crop. Plant cane and ratoon. The high wind and cyclonic storms are likely to induce lodging in a well-grown crop of Adsali. Proper care should be taken to tie the cane and give proper direction to reclaiming the crop.

The final earthing up operation of the cane planted in January should now be completed. Along with the operation mentioned above the last dose of 24 kilograms of sulphate of ammonia and 350 kilograms of groundnut cake should be applied. This last dose is supposed to maintain the supply of nitrogen throughout the period. Care should also be taken to control the pests like pyrilla, top borers and field rats.

TESTING QUALITY OF SEEDS

WITHOUT sowing seeds of good quality one cannot obtain a good stand of any crop. But how does one get to know what is the quality of the seeds and their germination capacity? Farmers follow their instinct and are guided by their experience. But they are not enough. It is better, now that we can depend on the aid of science, to have the germination capacity of the seeds tested before sowing.

A new and quick method now evolved for testing the germination capacity is the use of a chemical called Tetrazolium chloride. The test is based on the ability of the chemical to stain only good, viable germs.

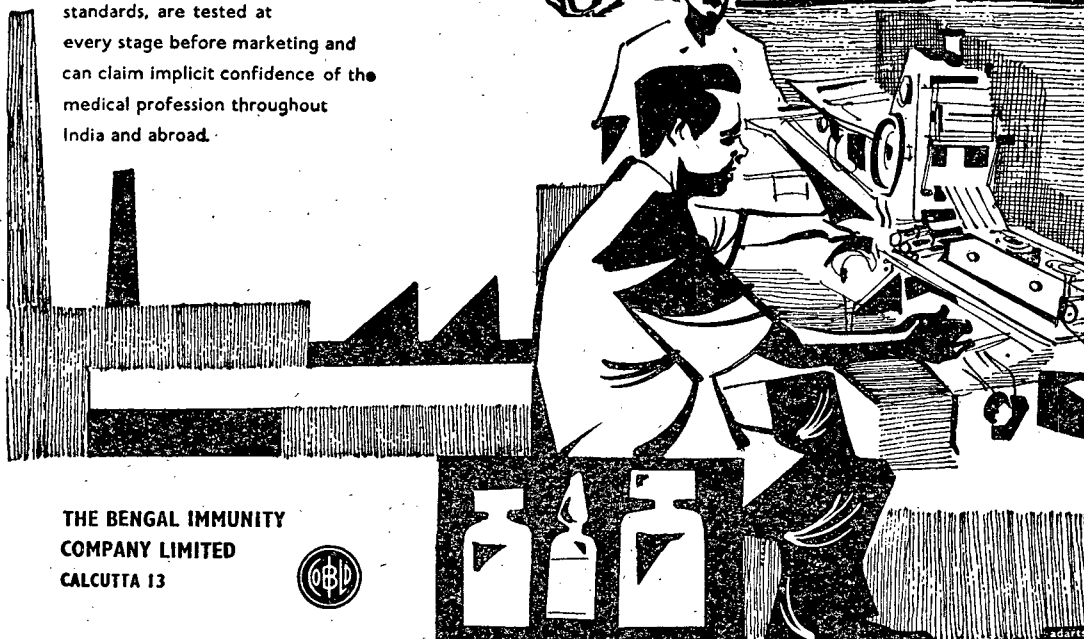
A handful of seeds is taken from different portions of the bag and 100 seeds are removed at random from this mixed lot. For a more accurate assessment two lots of 100 seeds can be counted and taken for test. As regards paddy, the seeds are husked carefully without any damage to the germ and soaked in water overnight. The water is drained out in the morning. A half per cent solution (half a gram of the Tetrazolium chloride in 100 c.c. of water) is poured just to cover the seeds and left over for about eight hours. Those seeds that turn pink at the germ portion are counted. This gives the percentage of seeds that would germinate.

Paddy seeds have generally a high germination capacity ranging from 90 to 100 per cent. If it is lower than 75 to 80 per cent the seeds should be considered poor.

3 in one in drug industry

Research, Clinical Study and Production are the three units, which when co-ordinated, become the spearhead in a drug industry. Bengal Immunity Co. Ltd. the premier institution for manufacture of biological and pharmaceutical products in India has harnessed and co-ordinated these three units into one.

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More Power For Maharashtra

Koyna Generator Commissioned

The power-house of the Koyna project in Maharashtra was commissioned on May 16 when its first generator was switched on.

Four generators, of 60,000 KW. each, will generate power to electrify the region of Western Maharashtra and will augment the power supply to the city of Bombay. Initially the power from the first generator will cover the six districts of Sholapur, Satara, Sangli, Kolhapur, Kolaba and Ratnagiri, and 60,000 kW of capacity will be added every six months until the full capacity of 2,40,000 kW is reached by the end of 1963.

The power-house is situated underground where the waters of the Koyna fall from a height of 1,500 feet. The waters are diverted to Pophali, where the power-house is

located, through an underground tunnel from Deshmukhwadi, where the river is dammed before it meets the Krishna. The distance between the two points is twelve miles. This system is designed to reduce the cost of power generation. The dam is 2,200 feet long and 250 feet high forming a lake of 45 square miles.

The project was launched in January 1954. The total cost is estimated at Rs 39 crore.

Work on the second stage has already started and by the end of the Third Plan, the Koyna project will be producing 4,80,000 kW. of power.

Work on the project is carried out entirely by Indian engineers and workers. Yet it is a fruit of international co-operation. The World Bank has given a loan of Rs 12 crore, Switzerland has supplied technicians for building underground tunnels and power-house; generating plant and equipment have been obtained through global tenders—regulating valves from Yugoslavia,

AS THE PLAN MOVES

turbines from France, generators from AEG, transformers from Italy, cables from Sweden and stepdown transformers from Britain.

The power will help industrialisation of the region and also facilitate irrigation up to Vidarba in the east. Besides, it opens up new avenues for exploitation of mineral wealth in the underdeveloped areas of Konkan and also Goa.

Fuller details of the Koyna project are described in two articles published in Yojana dated January 26 and February 4, 1962.

COMPULSORY PRIMARY EDUCATION

To enforce compulsory primary education, the States of Punjab, Andhra Pradesh, Gujarat, Madhya Pradesh and Mysore have passed the necessary laws. Assam, Bihar, Jammu and Kashmir, Maharashtra, Orissa, Rajasthan and Uttar Pradesh are considering such legislation. Kerala, Madras and West Bengal do not feel such a measure is necessary.

A model legislation was supplied to the States by the Central Government.

the fortnight in yojana bhavan

Up to May 17, 1962

THE penultimate stage in the formulation of specific proposals to strengthen the administrative set-up in the States, particularly at the district and block levels, was reached when Mr. V.T. Krishnamachari, former Deputy Chairman of the Planning Commission, concluded his round of discussions with the Chief Secretaries and Development Commissioners of the State Governments.

The discussions started on April 24, with the representatives of the State Governments of Punjab and Madhya Pradesh and were followed by similar discussions on April 26 with officials of West Bengal and Andhra Pradesh, on April 28 with Kerala, Madras, Mysore, Orissa and Uttar Pradesh, on May 3 with Bihar and Rajasthan and on May 8 with Maharashtra.

The Third Plan document lays particular emphasis on administration and Plan implementation and devotes nearly 14 pages to indicating the steps considered necessary to discharge the administrative burdens flowing from the Plan.

Mr. V. T. Krishnamachari was specially requested by the Planning Commission and the Home Minister to report on the following aspects of this question: (i) additional

requirements, recruitment and training in relation to State administrative services, (ii) district administration and (iii) additional requirement, recruitment and training in relation to the Indian Administrative Service.

Mr Krishnamachari's detailed studies, which included on-the-spot discussions in some States, were analysed and tentative proposals emerging therefrom were communicated by him in notes to State Governments for their consideration and comments. The round of meetings just concluded was the next step. There was a close appraisal of the administrative tasks devolving at various levels and the measures to be taken for discharging them.

Mr Krishnamachari was assisted in his discussions by Mr Vishnu Sahay, Member, Administration and Transport, Planning Commission, Mr. S. S. Khara, Secretary, Planning Commission, Mr. Tarlok Singh, Additional Secretary, Planning Commission, Mr L. P. Singh, Additional Secretary, Ministry of Home Affairs, Mr P. V. R. Rao of the Ministry of Community Development and Co-operation, and other officials.

Among the points on which discussions centred was the question of co-ordination of the work of the block specialists and the district officers and their relationship with

the democratic bodies of Panchayat Samitis and Zila Parishads.

Mr Krishnamachari's report will be ready soon.

The sphere of activities of voluntary welfare organisations in India is familiar. However, there is, as yet, no source from which details about the activities and personnel of the voluntary organisations can be had. This gap is sought to be made up by a new scheme for the preparation of a directory of voluntary social welfare organisations of India. Sanctioned by the Planning Commission, the scheme is to be executed by the Central Social Welfare Board which guides and assists voluntary organisations all over the country.

Mr. A. D. Pandit, who was Officer on Special Duty in the Planning Commission in charge of Agriculture and Rural Works, has taken over as Special Secretary in the Union Ministry of Food and Agriculture. He has also become Vice-President of the Indian Council of Agricultural Research.

The Government of India has set up an Evaluation Advisory Board for guiding the work of the Programme Evaluation Organisation of the Planning Commission. It consists of Dr. V. K. R. V. Rao (Chairman), Raja Surendra Singh of Nalagarh, Prof. M. L. Dantwala, Dr. M. N. Srinivas, and Dr. J. P. Bhattacharjee (Secretary).

Land Reforms in Saurashtra

(Continued from page 21)

prevalent in other States. It has also been argued, perhaps rightly, that if special concessions had not been conferred on the Girasdars and Barkhalidars in the matter of land revenue payment and all the lands in Saurashtra had been placed on an equal footing making it obligatory for them to pay at the rate of Rs 3.50 per acre instead of 4 or 8 annas per acre, the total gain to the exchequer could have been much bigger than Rs 2.98 crore estimated for 1956-57. In treating the Girasdars and Barakhalidars so liberally both in the matter of compensation and land revenue payment, the Government would seem to have been guided by two considerations: first, it did not want to antagonise an influential section of the population; second, by giving the Girasdars and Barkhalidars sufficient capital, the Government wanted them to make a clean start and develop the Gharked land which remained in their possession.

Land Mortgage Bank's Role

IN the implementation of the land reforms the Saurashtra Central Co-operative Land Mortgage Bank played a very important part. The Agrarian Reforms Commission had clearly foreseen that the tenants will find it difficult to borrow money and pay the compensation money in one instalment and it would be desirable for the State to directly advance the money as Taccavi. The Commission had, therefore, recommended the setting up of a Land Mortgage Bank. The Government of Saurashtra placed at the disposal of the Saurashtra Central Co-operative Land Mortgage Bank not only enormous funds but also their revenue officials to serve as branch managers of the Bank at various places in Saurashtra. The Bank advanced money without proper securities though an attempt was made later to regularise the procedure by specially granting permission to the Land Mortgage Bank to do so. The procedure of giving loans to the tenant-cultivators, though somewhat complicated, safeguarded the interests of the Bank and also made it impossible for the tenant to use the sanctioned

loan for any purpose other than the payment of the purchase price to the Girasdars. As against the normal practice of most Land Mortgage Banks, namely advancing only long-term loans, the Bank advanced medium-term loans to the cultivators at 6.25 per cent. The recovery of the advances was to be in four equated annual instalments. As a result the overdues of the Bank at one stage had attained alarming proportions but the Government permitted the instalments of the loans advanced by the Bank to be recovered along with the revenue dues of the Government, thus helping the Bank to come round in a short period.

Other Improvement Changes

Although one of the direct effects of abolition of intermediaries may be a slight reduction in the burden of rent or revenue on the cultivators, most of its other benefits follow from the improvements in the revenue administration it brings about. In Saurashtra, as elsewhere, the abolition of intermediaries not only brought about a psychological change in the Girasdar and Barkhalidar tenants (who now looked forward to the future for an improvement in their economic status) but was also followed by distinct improvements in the land utilisation and crop patterns. Another interesting aspect of the land reforms in Saurashtra brought to light by the Survey is that the land reforms were not instrumental in changing the distribution of holdings. There were also very few cases where the cultivator became landless due to the changes introduced by the land reforms.

An important aspect of land reform on which studies sponsored by the Research Programmes Committee or conducted by independent research organisations have not thrown enough light so far is the effect of these reforms on agricultural labourers. It may be useful to study the implications of various land reform measures undertaken in different States with particular reference to small owners (cultivating as well as non-cultivating) and tenants, who

are generally included among agricultural labourers. Another field in which a study of land reform measures may be helpful is that of finding out the possible explanation for important variables of agricultural labour. These suggestions are made because the Report of the Second Agricultural Labour Enquiry has thrown up a number of puzzling conclusions many of which could perhaps have been resolved had there been some studies on the effects of land reforms on agricultural labour.

SUNIL GUHA

ANSWERS TO QUIZ

1. A) According to the latest count, there were 34,000 tractors at the end of 1961. The number rose by 12,000 during the Second Plan period.
B) A private firm started production of tractors in 1960 at the rate of 6,000 a year. The production capacity will go up to 10,000 tractors per year by the end of the Third Plan and licences have already been granted for five plants with a total capacity of 14,500 tractors.
2. A) Production—150 metric tons.
B) Foreign exchange earning—Rs 1 crore.
3. A) (b) 336.53 million. It has increased by 9.8 per cent over 306.50 million in 1956.
B) a) 175.67 million, showing an increase of 10.7 per cent on 158.65 million in 1956.
4. The Prototype Production and Training Centre serves the technological needs of the small scale industries. It has been established at Howrah (Calcutta) under an Indo-Japanese agreement signed in New Delhi on January 25, 1960. Japan will supply teaching aids, machinery and equipment tools and spare parts, and requisite number of technical experts and teachers at a total cost of Rs 58 lakh for the Centre; India will meet the expenses on land, buildings, raw materials and Indian staff, which would total about Rs 70 lakh. The first training course started at the Centre on November 17, 1961.

There are two other such prototype production and training centres in the country. They are at Okhla near Delhi, and Rajkot in Gujarat. The former has been assisted by West Germany and the latter by U.S.A.

Now Alind awarded contract for the two largest sizes of ACSR ever to be made in India!

Two of the largest sizes of ACSR for overhead transmission networks ever to be made in India will now be fabricated by Alind—"Camel" ACSR and "Zebra" ACSR! The order-placing authority: Madhya Pradesh Electricity Board.

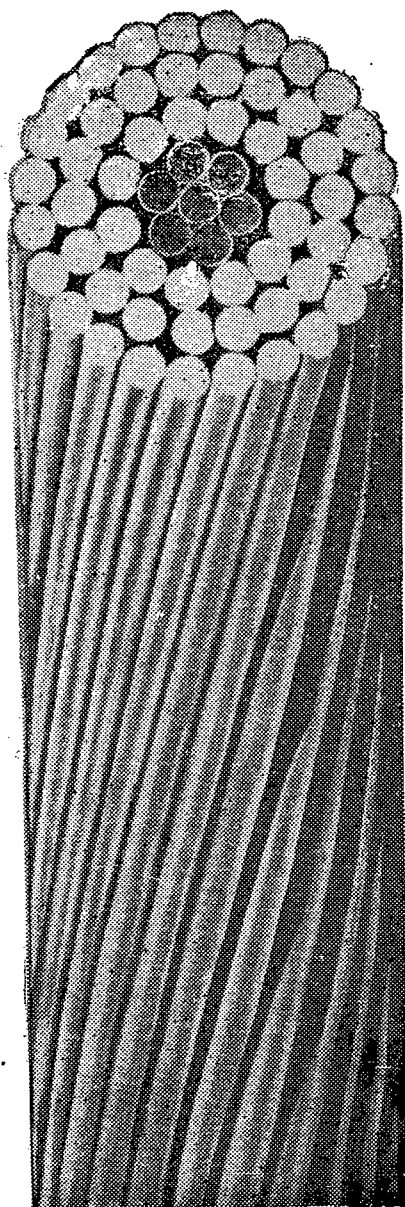
"Camel" ACSR comprises 54 strands of aluminium wire, each 0.132 inch in diameter, stranded over a core of 7 steel strands, each 0.132 inch in diameter and has an approximate ultimate strength of 32,540 pounds.

Details for "Zebra" are: 54 strands of aluminium wire, each 0.125 inch in diameter, 7 steel strands each 0.125 inch in diameter, and an approximate ultimate strength of 29,400 pounds.

These two sizes will be used on two double circuit 220-kV transmission lines involving a total length of 1725 kilometres.

Alind was first with the first ever 220-kV transmission line to be erected in India from Nangal to Delhi... built with "Goat" ACSR. Then came the Koyna-Bombay 220-kV line (using Alind "Sheep" ACSR) and then the Kundah-Salem 220-kV line (using Alind "Kundah" ACSR).

"Camel" ACSR



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Pride of Place

Chappals of Kolhapur

It is not just the compressed soles and durable straps that make a pair of Kolhapuri *chappals*. The distinctive features are the design and workmanship. In fact the *chappal* forms part of the typical Kolhapuri dress. Clad in dhoti and *mulmul* shirt with a silk turban covering his head, a Kolhapuri will prefer a pair of local *chappals* to any other footwear.

The straps of these *chappals* are wider and cover right up to the ankle. What gives them additional charm is the introduction of *zari* and leather tufts.

Though originally made in Kolhapur, these *chappals* are now manufactured in other parts of Maharashtra as well. The industry is now run on a co-operative basis in Kolhapur City and the value of the export from the entire district is estimated at Rs 5 lakh a year.

Because of their design and durability—a pair of Kolhapuri *chappals* generally lasts for two years—they are in demand in other parts of the country. The price of a pair ranges between Rs 6 and Rs 8.

Courtesy : Maharashtra Information Centre, New Delhi.

QUOTATION BOX

The Speaker of the Bihar Assembly, Mr. Lakshmi Narain Sudhansu, told a member not to put questions while chewing "pan". If he wanted to put a question, he should go out of the House and wash his mouth first, the Speaker said.

—From a report released by the Press Trust of India.

I brought no politics into my campaign, no personalities, no 'isms'. All I did at my election meetings was to show films of the dams I have built—Kosi, Hirakud, Chambal, Nagarjunasagar and several more. I found the people more responsive to this evidence of constructive work than to political slogans.

—Mr K. L. Rao, M.P., who was formerly a member of the Central Water and Power Commission.

Cigarette prices may have risen, but the price of 'bidis' has not risen; and it is these that the common man smokes, and not cigarettes.

—Mr Morarji Desai in the Lok Sabha.

Another room in the residential part of Rashtrapati Bhavan which is not used by him (Dr Rajendra Prasad) is the dining room. He prefers to

have his meals sitting on the floor in the kitchen in the traditional Hindu manner.

—From "Link", May 6.

The ICS man can't do everything. He cannot operate on a surgical case. Similarly he cannot automatically be a good man to run a public enterprise.

—Mr Kamalanayan Bajaj, M.P.

India is the only country where the span of education is 14 years, whereas it is 16 years in USA and 15 years in U.K.

—Mr C. D. Deshmukh, quoted in "The Hindu"

It is time that the Indian people realised that, growing to manhood in the planning age, they are partners of the Finance Minister to the enterprises to which we have jointly set our hands. It is their glory, as well as their duty, to accept with good grace what cannot be evaded..... The political complexion of this society would require some elements of socialist medicine, even if the country were not committed by the Congress Government to the socialist pattern of society.

—"The Eastern Economist", April 27.

The prevailing reactions of a first-time visitor (to India) are shock and compassion, mixed with chagrin that outside help is so pitifully inadequate. I often thought of the woman in a lecture audience who asked the speaker "why America is giving so much foreign aid to India when everyone knows the Taj Mahal is the richest man in the world".

—A U.S. journalist writing in "The Washington Evening Star"

In one village of 200 souls which I know I counted eleven transistor sets and one man who had made it his occupation to look after them.

—Mr. Sachindranath Chowdhury, M.P.

The Planners may not be willing to admit it yet, but the Plan will have to undergo considerable revision. The symptoms of the malady that beset the Second Plan in 1957 have reappeared and changes are inevitable. Imbalances in key sectors have occurred, the export drive has failed to make an impact on the resources position so far and the balance of payments situation continues to be precarious.

—The Financial Express