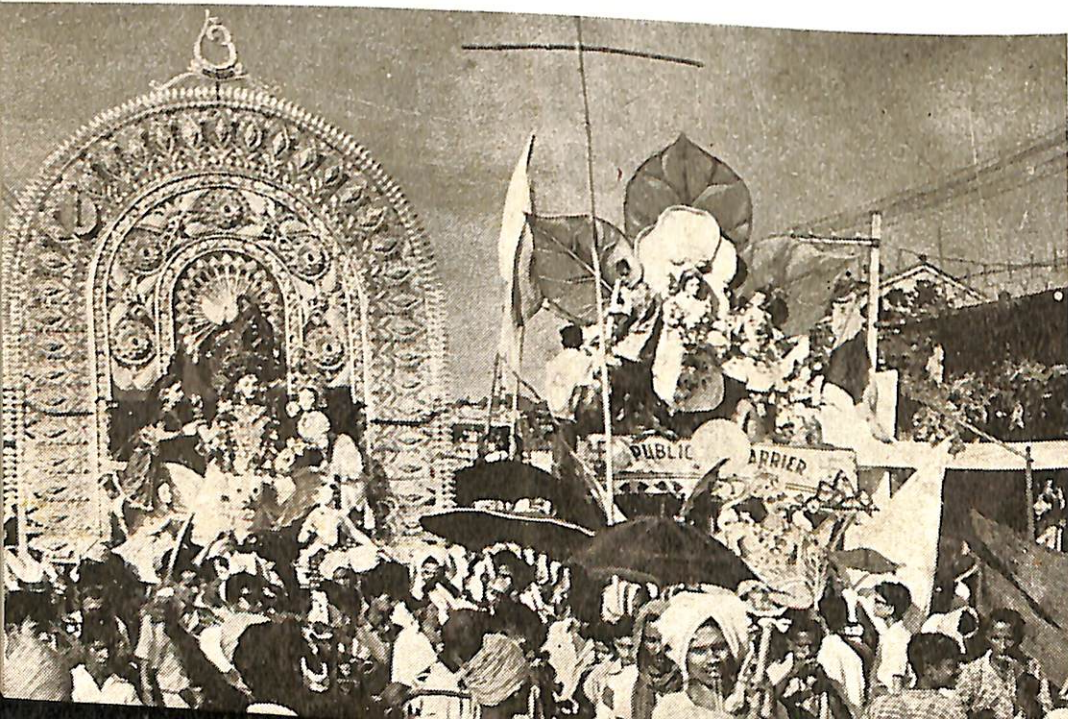


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Bronze Statue of Gandhiji erected at Bhawanipatna (Kalahandi District) as a part of Centenary functions. The Statue has been moulded by Sri S. Dhanpal, Vice-Principal of Government College of Arts & Crafts Madras, at a cost of Rs. 20,000. The people of Kalahandi have contributed nearly Rupees One Lakh for raising memorials for Gandhiji



Concluding ceremony of the week-long Gaja Laxmi Puja at Dhenkanal was held on October 21, 1970
Picture shows the images are being carried in procession for immersion



ORISSA REVIEW

NOVEMBER, 1970

Kartika 1892

Vol. XXVII No. 4

In This Issue.....

1. Our Plan and the Green Revolution ... 1
2. Technical Education for Industrial Development ... 5
3. Abolition of Trust Estates in Orissa ... 11
4. Tips for Walking Tours ... 15
5. Family Planning and the Quality of Life ... 17
6. Promise of the Gandhi Centenary ... 21
7. Industrial Plantation in Orissa ... 25
8. Maritime Activities of Orissa ... 29
9. India's Atomic Energy and Space Research ... 33
10. Ground Water and its Utilisation for Irrigation in Orissa ... 37
11. Archaeological Treasures of Chandeswar ... 41
12. Expansion of Educational Facilities ... 44
13. Community Development : The Concept ... 48
14. Somesvara—The mine of Sculptures ... 50
15. Administration of Law in Orissa : Latest Round up. ... 54
16. Ayurvedic System ... 56
17. Calendar of Events : Orissa ... 57
18. Our State

ORISSA REVIEW seeks to provide a condensed record of the activities and official announcements of the Government of Orissa and other useful information. Many items appear in summarised form. Such items should not be treated as complete and authoritative versions.

Although published on behalf of the Government of Orissa, Home Department, the views in the items expressed in the 'Orissa Review' are not necessarily those of the Government of Orissa.

Publisher :

Home Department
Government of Orissa

Subscription :

Annual : Rs. 6-00
Per copy : 50 paise

Date of Publication :

15th of each month

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OUR PLAN AND THE GREEN REVOLUTION

Agriculture is the mainstay of the people of Orissa. About 80 per cent of the population lives on this primitive industry. The value of the crops produced in a year is about 60 per cent of the total income of the State. The remaining 40 per cent of the State's income is derived from industry, commerce, transport, etc. The economy of the State is therefore *predominantly* agrarian in nature. It appears that 40 per cent of the population enjoy 40 per cent of the national income of the State whereas 80 per cent of the total population engaged in agriculture share only 60 per cent of the state's income. This disparity of the national income cannot be removed unless the agricultural programmes are revolutionalised. We cannot talk of the State becoming prosperous and provides sufficient raw materials for the growth of the industry in the State. Some steel plants, operation of coal mines or other such manufacturing concerns cannot solve our problems and it may further worsen the *per capita*

difference of income in the different sectors of agriculture, trade, industry, etc.

Since the last two decades stress is being laid on the Agricultural Development Programme and steps have been taken for full application of science and technology in the field of Agriculture.

The introduction of high yielding varieties of paddy, viz., Taichung Native-I, IR-8, Jaya, Padma and Mexican Wheat, Lermaroso, Sonara-64, Safed Jarms, Sonalike, etc., have brought about practically a revolution in the field of agriculture. So long, the research findings were kept isolated from the field of agriculture. But the present extension programme has bridged the gaps between the research, laboratory and the field.

Under the emergency food production drive, efforts were made to intensify

the raising of the second crop of rice during Rabi in irrigated areas of Cuttack and Sambalpur in the year 1965-66. The variety of Taichung Native-I introduced in the village Putting of Cuttack district brought the success in getting a record yield of 132 Mds. of paddy by Shri Upendra Biswal. This success explored the great potentialities we have. His success was again repeated by Shri Laxman Kumar Dharua of Bolangir district who achieved a greater success by producing 195 Mds. of paddy per acre. Shri Rama Raul of Chatrapur and Shri Nilakantha Behera of Parlakimedi both in Ganjam district also achieved record yield in paddy cultivation.

This revolution has brought about 4 lakhs acres under high yielding paddy cultivation by 1969-70. It is expected to bring about 10 lakh acres under high yielding paddy cultivation by end of the 4th Plan. Besides this H. V. P. Programme, we have got extensive areas where we can share the introduction of high yielding wheat crop.

Shri Dutiya Chandra Patel of Sambalpur has established our potentialities in the field of wheat cultivation. His record yield of 63 Mds. of wheat per acre has lead us to believe that high yielding wheat can pay us better than the high yielding paddy crops at lesser cost and with the 1/5th of the water requirements. We have proposed to bring about 0.24 lakh acres under high yielding wheat crops by the end of the 4th Plan to meet our requirements. To attract the cultivators to take up this cultivation, about 100 farmers of this State were sent to Punjab by the Orissa Krushak Samaj to see and to have the first hand knowledge about the intensive wheat cultivation programme in Punjab. Similar programme has been drawn up for repla-

cing unremunerative cereal crops like Bix paddy, ragi, local maize, etc., by introducing high yielding varieties of bajra, jowar hybrid maize, etc. All this programmes will help us to increase the production of rice and other cereals from base production level of 49.57 lakh tonnes in 1968-69 to 100 lakh tonnes by the end of the 4th Plan. In addition to these food production programmes, all efforts are being made to double the jute and mesta production from the base production of 4.10 lakh bales to 6.40 lakh bales by the end of the 4th Plan.

Oilseeds, sugarcane, vegetables and pulses are also important crops of the State which contribute to the major income in the agricultural sector. The record yield of 37 quintal per acre given by Shri Pareswar Panda of Aul of Cuttack district in groundnut gives high hope to achieve the target to 2.70 lakh tonnes of oilseeds by the end of the 4th Plan.

107 tonnes of sugarcane yield per acre by Shri Kubar Rout of Baramba of Cuttack district which is ten times the average sugarcane acre-yield of the State is an important landmark. This raises high hope of achieving the target of 3.00 lakh tonnes of Gur by the end of the 4th Plan against our base production of 2.11 lakh tonnes.

In reviewing our achievements in past and our agricultural development programme at hand, it may be noted that credit facilities available in the past were quite inadequate to meet the needs of the farmers. Since nationalisation of banks, credit institutions are coming up in the rural and urban areas to support the farmers by advancing crop loans to grow

remunerative crops in the line of the package of practices recommended by the technical personnels of the Agriculture Department. This will certainly help to get ample opportunities for the extension of acreage under different crops and will lead the cultivators to adopt multiple cropping programme. The growth of these credit institutions will supplement the Green Revolution which has taken place in different parts of the State. The agricultural personnels are trying their best to link up these credit institutions for implementation of the crop production programme.

Fertiliser plays an important role in maximising the crop production. The consumption rate in our State is only 16 Kg. per hector which is very disappointing in comparison with our requirement per hector. The reason for this low consumption may be due to lack of purchasing capacity of the farmers and non-availability of this important input at the cultivators' door, and lack of knowledge of the farmers for the use of this input for increasing crop production. In order to promote the consumption of fertiliser of the State, the Government have taken steps like introduction of free trade in fertilisers and pesticides through induction of private dealers, organising training programmes and seminar to educate the farmers, laying out field demonstration and other such programmes.

So far our agricultural economy was based on one crop programme. Unless we grow

at least two crops in the non-irrigated areas and three crops in the irrigated areas, our agricultural income can not be substantially increased. In the non-irrigated areas we are planning to grow one rainfed crop and another short duration crop in the residual moisture. In the irrigated areas three crops are being planned on rotation. We have got the multiple cropping programme. To popularise this programme, thousands of demonstration plots have been laid in cultivators field to bring home the recommended crop practices suited to the local conditions.

The success of all these programmes do not rest on the handful of technical workers engaged in the research laboratory or in the field of the extension programme. At length, this will be done by the 80 per cent of the population engaged in the industry of agriculture. To train all the farmers to take up the new technology and adopt farm practices is a difficult task. So steps have been taken to impart training to selected farmers from different blocks and villages in batches and to equip them with necessary information for taking up the leadership in the villages. Peripatetic trainings are also arranged to train up the cultivators at their farm houses for adoption of recommended practices and to take up the multiple cropping programmes, being supported by listening clubs, frequent radio contacts and press releases. Hence the entire programme now rests with the farm leaders and farmers for making the Green Revolution a great success.

ROCK MEMORIAL TO SWAMI VIVEKANANDA

"I am proud to belong to a nation which has sheltered the persecuted and the refugees of all religions and all nations of the earth" said Swami Vivekananda on September 19, 1893 at the World's Parliament of Religions held at Chicago.

Seventy-seven years later, his country men, to promote and propagate the philosophy of Vivekananda, built an imposing edifice at the land's end of India at Kanyakumari where he, in his deep meditation, received divine light and discovered the mission of his life.

At the confluence of the three seas at Kanyakumari, two huge rocks magnificently jet out of the water about two furlongs off-shore. Swami Vivekananda visited this holy place in December 1892, and swam the sea for a retreat on the "Shripada Rock". The Vivekananda Centenary Celebration Committee has built a spacious Mandapam with a magnificent life-like statue of Swamiji in his wandering monk posture and Shripada Mandapam of equal grandeur housing the feet of Devi Kanya, the legendary deity of Kanyakumari. The project which took six years to complete has cost Rs. 90 lakhs.

The mandapam is patterned on the model of the Ramakrishna Mutt at Belur. The front porch of the mandapam is reminiscent of the Ajanta type of architecture and the towers raised on the mandapam that of Pallava architecture. The artisans who did the job were trained in the Mahablipuram Government School of Sculptural Arts.

The total quantity of the stones used for the construction work is 73,000 cubic feet. The major portion of the granite, black and red stones and slabs used is *quarried* from different centres in Tamil Nadu. They were dressed on the mainland and then ferried across to the Vivekananda rock by landing crafts.

The memorial has been designed by Shri S. K. Achary of Devkottai of Ramnathapuram District in Tamil Nadu, an architect of the traditional school. On an average, 650 men worked steadily for the last 6 years to put up this memorial to the man who gave spiritual shape and size to man's worldly horizon.

Technical Education for Industrial Development

India is known for its engineering works from time immemorial. This signifies that engineering skill was possessed by our people from ancient times. There are old manuscripts to show that our ancestors had adequate knowledge of engineering. This skill and talent could not be passed on to the coming generations for want of any Technical Education system and perhaps also due to foreign rule in our country.

Before Independence, India had hardly any place on the industrial map of the world. With the advent of planning, emphasis was laid on the industrialisation of the country. The *First Five-Year Plan* which had an outlay of Rs. 1,960 crores was essentially one of rehabilitating the economy from the ravages of war, famine

and partition. Agricultural development along with irrigation and power generation as also transport received high priority. Industrial expansion received priority in subsequent plans. Under the *Second-Five Year Plan* the outlay was Rs. 6,750 crores and the main objectives were rapid industrialisation, larger expansion of employment opportunities and reduction of inequalities in income. The *Third Five-Year Plan* had an outlay of Rs. 10,400 crores. It also laid greater stress on Industrialisation and also for the first time explicitly stressed on self-reliance and self-generating economy. While the 1st Plan achieved considerable success and the 2nd Plan was also satisfactory, the records of *Third Plan* did not appear good. During the *Third Plan*, for 3 years out of the five, weather conditions were

Freedom is not worth having if it does cannot freedom to err.

—M. K. Gandhi

adverse and the country had to face hostilities with China and Pakistan.

In spite of all this, the overall progress, considering the three Plans together, has been fairly satisfactory. Thus compared to 1950, we now produce more than 3 times of Cement, four times as much Steel, more than 6 times as much Electric power, seven times as much Machine Tools, in terms of value and 15 times as much Aluminium, 5 times as much of Paper and 10 times as much Fertilisers.

The output of the engineering industries increased from a paltry sum of Rs. 80.8 crores in 1951 to an impressive figure of Rs. 1,606 crores in 1965. Where there were a few small repair workshops, the country has today several gigantic undertakings manufacturing items ranging from pins, pens and handtools to ocean going vessels, aeroplanes, locomotives, rail coaches, telecommunication equipments, televisions, automobiles, heavy Power generating automobiles, heavy Power generating equipment and a vast array of Industrial machinery and machine tools.

All these developments have resulted in just scratching the fringes of the problem. Our average *per capita* income is a little over Rs. 500 in a year (that of Orissa is Rs. 347-only higher to Bihar). Although we were ranked 14th in the world for Power Generation (we produced 2 million Kw in 1947, 13 million in Kw in 1968 and Targets of 1970/71 and 1974

are 20 million Kw and 30 million Kw respectively) our *per capita* consumption only 70 KwH compared to 7,400 Kw in Canada, 6,400 KwH in USA, 3,700 Kw in U.K. and 2,000 KwH in Japan. Similarly our *per capita* consumption of paper only 1.5 Kg. compared to 243 Kgs in USA, 167 Kgs. in Canada, 123 Kgs. in U.K., 11 Kgs. in West Germany, 97 Kgs. in Japan and 23 Kgs. in U.S.S.R.

It would perhaps be worth while at this stage to focus the attention to the enormous resources our State of Orissa. Orissa possesses about one third of the Iron-ore in India. Nearly a thousand million tonnes of non-coking coal is available in the Talcher Coal fields. Orissa produces 26/2 per cent of the total production of Manganese in the country inclusive of Goa and the estimated reserves are of the order of 21 million tonnes. Similarly Orissa is the leading producer of high grade limestone and dolomite needed for the Steel Industry. Almost all the Chromite Ore in India are found in Orissa. Quarz, Quarzites, Fire Clay, China Clay, Bauxite, Graphite, Kyanite, Asbestos, galena and nickle are the other minerals found in this state. In Forestry also Orissa is not lagging behind. It constitutes 8 per cent of the total Forest area of the country and 42 per cent of the area of the State. Orissa had nearly 400 meter long coastal line. large number of rivers, artificial lakes created by Irrigation Projects and the Chilika—the biggest natural lake in the

You can rob an army of its general, but not the least of men of his well.

—Confucius

country giving scope for exploitation of fisheries.

There is enough water available for diversion to agriculture or industry or for generation of power. Orissa is the only State in Eastern India which has substantial surplus of power. In spite of these vast resources and in spite of the three Five-year Plans, the economic condition of Orissa continues to be poor. Orissa ranks 15th in India in Industrial backwardness being better than only Jammu & Kashmir and Nagaland. In the words of Dr. A. N. Khosla, the ex-Engineer Governor of State Orissa mirrors the paradox of all backward areas—poverty amidst potential plenty. Orissa has untold wealth of natural resources, land, forest, water, minerals and a long sea coast and a population of about 18 million. Yet it is the poorest and most backward State of India”.

On the other hand, if we look to the progress in science and technology in the developed countries, we observe that one can get in touch with any part of the world within seconds, can travel faster than the speed of sound. The computers control the processes and last but not the least—the mankind for the first time in the history, tracked the moon.

The above comparison is not intended to cause any disappointment in us. Dr. Zakir Husain, the late President of India while addressing a gathering of engineers had

once said: “We have the potential resources to give our teeming millions a reasonable comfortable standards of living. The question of making our potential resources into goods and services lies pre-eminently in the sphere of engineering and technology. In the war against poverty that we have launched, we require the services of a vast army of first rate engineers and technicians to be professionally competent and imbued with a passion to serve our people. Our people, in spite of their poverty and backwardness, are wide awake and thoroughly dissatisfied with their lot. Here is a challenge and opportunity to our scientists, engineers and technicians.”

It is, however, quite significant that we have now established a base on which all our future development can proceed. To my mind, for the Industrial Development, we need five ‘M’s—Men, Material, Machines, Methods and Money....All these will have to combine to achieve maximum benefits possible. Let us examine the importance of each these M’s in a broader way.

MEN is perhaps the most important factors of all—Be he is the mill-owner, administrator, technocrat, foreman or a skilled hand. The success of any industry necessarily depends on the hard work put in by each of these men in different positions with a team spirit and in a collective manner. The history of Technical Education, I believe, will be relevant in this context.

The soil of India, is my highest heaven ;
The Good of India is my highest good.

—Swami Vivekananda

Perhaps, the most ancient technical institution of the kind was the one established by the East India Company in Madras in 1754 and was then known as School of Surveyors. No other Technical Institution came up for nearly a century. Three Technical Institutions were started in 1842, 1846 and 1854 in Guindy (Madras), Roorkee and Poona respectively. The first planned effort in the field of Technical Education was made in 1936 when an expert committee from U. K. visited this country and produced the Abbott-Wood Report on Technical Education. However, before any action on the basis of this report could be taken, the second world war broke out. The need for technicians for the War effort was then felt and several training programmes were organised.

In about 1944, two important decisions were taken. Firstly, it was recognised that Technical Education after the school stage need be planned on an all-India basis. This resulted in the establishment in 1945 of an All-India Council for Technical Education. Another decision taken at that time was the appointment in 1947 of the Scientific man-power Committee to undertake a survey of the available man-power in the various spheres of technology and to report to the Government on the deficiencies that existed and to make suitable recommendations on the ways of removing the short-comings. The findings of this Committee revealed a tremendous gap between the immediate requirements of the country and the output of the technological institutions.

Thus, when India attained Independence in 1947, a certain amount of awareness of the importance of technical education to

national prosperity had grown in many quarters. Much headway, however, could not be made till 1951 mainly due to the rehabilitation problem of the displaced persons.

The 1st, 2nd and 3rd Five-Year Plans accorded high priority to technical education and a large financial provision was made both the centre and in the State for the establishment of new institutions and for the development of existing ones.

In 1947, when we attained Independence there were in this country, 38 Engineering Colleges with a total admission capacity of 2,940 students per year and 53 Polytechnics with a total admission capacity of 3,670 students per year. Except in the Indian Institute of Science, Bangalore, there were no facilities for Post-Graduate studies. There was hardly any properly organised Industrial Training Institute for the training of technicians except that the War time Technical Training facilities are utilised for rehabilitation and resettlement of ex-servicemen and for training of other civilian personnel. Today, the number of Degree Institutions has increased to 138 with an admission capacity of over 25,000 students per year. But only 40 Institutions provide facilities for Post-Graduate studies to nearly 2,000 students. The number of Polytechnics has increased to 288 with an admission capacity of about 50,000 students per year. Also we have today more than 300 ITIs with a Training capacity of over 125,000 students per year. Besides this, we have Junior Technical Schools and a large number of Training establishments for the Railways, Defence, Posts & Telegraphs and other Departments. The Private Sector too has

established many training centres to meet their specific needs.

In terms of numbers, a remarkable expansion of technical education has thus been achieved in the course of the last years. This, however, poses many problems: firstly—

Do we need Engineers & Technicians in such large numbers? Have we planned the distribution seats for Mechanical, Electrical, Civil, Chemical, Metallurgical, Mining, Production, Industrial and other branches of Engineering according to the needs of the Country? As you know more than a lakh of Engineers and Diploma Holders are reported to be now unemployed. Between 1965 and 1968 alone the figures rose from 17,000 to 56,000 for Engineers and Diploma-holders and from 37,000 to 78,000 for I.T.I. Trainees. This large scale unemployment may be the cause of recession the country faced from 1965 to 1968. The economy is now picking up and weather conditions have remained favourable giving rise to bumper food crops. The Fourth Five-Year Plan draft is also full of promises with a total outlay of a little over Rs. 24,000 crores. What is however, necessary is that the requirement of Engineers and Technicians in different faculties is carefully re-assessed and more emphasis given on consolidation rather than expansion.

Secondly—Is the quality of Engineers & Technicians produced by us

good? The general feeling of the Senior Engineers in the Industry is that the University authorities in an attempt to impart basic knowledge in so many subjects have perhaps not quite realised *the needs of the industry*. The main objective of the students remained to anyhow pass out of the none too good system of examination. More audio-visual lectures, industrial tours and practical work are more important. Training plays a very important part in technical education. This gives them an opportunity to understand the realities, to inculcate the sense of discipline and to make them specialised in particular trade. *There is hardly any liaison between the technical institutions and industry and also between the technical institutes and National Laboratories.*

Thirdly—Is the quality of teachers good? It is a common experience that the teaching profession has not attracted really, suitable persons for the job primarily due to low remuneration. Further, most of them have no practical experience of the Industry at all and do not keep abreast of the latest developments and technology.

Technical Education for Industrial Development has now been an accepted prerequisite. Experience alone is not everything. In the era of *automation, sophistication* and fast moving machinery, we need persons with technical bias who operate

them well, maintain them well, devise means to reduce cost of Production and maintenance increase production and increase efficiency by developing new methods, materials and machinery. Import substitution, quality control, consultancy, industrial engineering, design and research, planning, projecting, erection are the other fields of activities for the engineers and technicians. They should also realise the need of good human relations and participation in the social and political affairs and work towards a balanced and integrated society.

MATERIAL : Availability of the appropriate material for a particular industry largely depends on natural resources nearby. Technical Education has made utilisation of other materials possible both in the consumers and engineering industry. For example some 30 years back bamboo was not considered as a suitable raw material for making paper. Today, bamboo has become the most popular of all the raw materials available in the country. Grasses, agricultural residues and bagasse are finding increasing use in paper making. Few woods are also used to limited extent. In the engineering industry, stainless steel is being fastly replaced by plastics, PVC, FRP, Aluminium alloys and rubber-lining. Moreover, let us not loose sight that *Japan is producing steel at cost lower than us from imported iron ore including from India.*

MACHINES: For any industry machines are a must. A good knowledge in proper selection of the size, design and capacities is essential to suit the local conditions. Due to the technical education, India is in a position to design and manufacture to

suit Indian conditions; fertiliser plant cement plants, sugar and textile machine substantial part of steel plants, boiler machine tools, transformers, AC and DC machines. We are exporting *mach tools to all advanced countries of world including USA, UK and US.* Without trained technicians could this have been possible?

METHODS: Methods are changing continually. Sometimes it is difficult to keep pace. It effects the cost of production and quality. Take the case of rivetting replaced by welding, Methods of telecommunication, power generation, material handling and transport have undergone radical changes in course of time.

MONEY: No Industry can be set up without money. However its good or bad running depends on men. After all it is the reason that our Steel Plants in Public Sector are running in heavy loss.

In spite of large scale unemployment both of technical and non-technical personnel at present, I am confident that technicians have a bright future. Our country will have to prosper which in my opinion can only be done through industrialisation and new techniques and implementation in agriculture. We cannot allow our valuable resources to go to waste. In the words of late Shri Visveswaraya, the engineering wizard, "Success depends largely on your own capacity, integrity and keenness to work". If we get into the habit of work entrusted to us or if we are able to cooperate and absorb ourselves in it, we can be sure of our success.

Thanking you

Abolition of Trust Estates in Orissa

With the passing of the Orissa Estates Abolition (Amendment) Bill, 1970 in the State Assembly recently, the first chapter in the history of land reforms in the State of Orissa can be said to have been closed. This amendment now arms the State Government with power to liquidate the trust estates, the last vestige of intermediary rights standing in between the State and the raiyats. The Orissa Estates Abolition Act, 1951 (Orissa Act of 1952), as its preamble will show, does not envisage for exclusion of any particular type of intermediary interests from its operation. It was only in the year 1963 for the first time it was considered expedient that the **Public Trusts should be** saved from abolition. It was apprehended that the annuity payable to such estates by way of compensation would not be adequate for their efficient management. An amendment was accordingly made and the Chapter II-A was inserted to the main Act by the Orissa Estates Abolition (Amendment) Act, 1963 (Orissa Act 5 of 1963) which provided a special procedure for excluding these institutions from the

operation of general vesting notification issued under Sec. 3-A of the Act.

PRESENT AMENDMENT: ITS OBJECT

This policy however could not fit in with the change in the situation after it was decided by the present coalition Government for abolition of land revenue. The idea that the tenants in the trust estates would continue to pay rent became incompatible once it was decided that their counterparts in the vested estates would pay no such dues to Government. So, as long back as on the 9th March 1968, an official resolution was moved and accepted in the State Assembly for extension of this concession to the trust estates not yet abolished subject to appropriate examination of legal and financial implications. After prolonged examination, it was found that this decision could not be implemented unless the trust estates were abolished and vested in Government. The objective as set out in the Fourth Five-Year Plan for completing the process of estates abolition in toto dur-

ing this period was another factor which also prompted the State Government for abolition of these estates which had been kept alive after the amendment of 1963.

WHAT ARE THE TRUST ESTATES

As defined in the Act, a 'Trust Estate, means an estate the whole of the net income whereof under any trust or other legal obligation has been dedicated exclusively to charitable or religious purposes of a public nature without any reservation of pecuniary benefit to any individual. They mostly constitute the revenue-free estates the proprietors of which are commonly known as Lakhraj Baheldars. The grants of revenue-free estates are divided into two classes—absolute gifts to individuals and gift of lands to be held in trust for a religious or charitable purpose. The former are known as Brahmottor, Pirottar, Dan, Mauffi, etc., whereas the latter are known as Debottar, Amrifa Manohi, Ekhrajat, Sadabarti, Pirottar and Kadam Rasul. The grants in trust are the absolute property of the temple, idol, monastery or saint while the management is vested in a trustee who is variously called the Sebait, Marfatdar, Mahant, Mutawalli or Daroga. It should be clearly understood that the Chapter II-A of the Orissa Estates Abolition Act, 1951 gave protection to only public trusts but not to private trusts and it was not retrospective in operation. The distinction between a private and a public trust, as observed by the Supreme Court in the case of Deoki Nandan Vs. Muralidhar (1956 S. C. R. 756), is that whereas in the former the beneficiaries are specific individuals, in the latter they are the general public or a class thereof. The member of trust estates in the State, declared as such

by the specially constituted Tribunal under the provisions of the aforesaid Chapter II-A, is fairly large. Subsequent to the issue of notifications under section 3-A for vesting of the Lakhraj Bahels and such other interests after the amendment of 1963 as many as 53,154 claims were filed before the Tribunals for their exclusion from the operation of such vesting notifications. Out of these claims 33,300 cases have been disallowed, 15,106 cases upheld and 4,680 cases are still pending before the Tribunals for adjudication. The cases in which the claims have been upheld constitute the religious and charitable trust estates of public nature. These are the estates which need now be abolished. The Ekhrajat and the Sataishazari mahals of Lord Jagannath temple at Puri are included in this list.

WHAT THE PRESENT AMENDMENT PROVIDES FOR

As pointed out earlier, the provisions of Chapter II-A which were inserted to the Act in the year 1963 were the stumbling block to the abolition of the trust estates *en masse*. This chapter has now been deleted. Under the scheme of the principal Act the compensation payable to a trust estate abolished is determined as a multiple of its net income and this multiple is adjusted on a sliding scale for different income brackets. As provided under section 28(2) thereof, the compensation payable to a trust estate is to be assessed as a perpetual annuity instead of in lump sum. This has been made so in order to facilitate the continuous performance of the Seva Puja and other prescribed rites of the deities. It is found that in most of the religious estates the rent is payable in kind. As per the existing rules the

ent payable in kind is valued at a price prevailing during the decade prior to 1942. It was thought that this would make the amount of perpetual annuity payable to a trust estate ridiculously low and that would be quite inadequate for the purpose for which it was intended. In order to remove this difficulty it has been provided in the present amendment that the perpetual annuity shall be subject to revision whenever the price of paddy in comparison with the price prevailing at the time of assessment or, as the case may be, last revision of the perpetual annuity increases or decreases by at least twenty-five per centum. Another important feature of the present amendment is that unlike in other vested estates the holders of jagirs rendering personal service in the trust estates will not have the benefit of enfranchisement even after abolition of such estates. In other words, they will continue to render service to such institutions. This also has been provided as a safeguard against the contingency of discontinuance of Seva Puja, etc., due to non-availability of man and material in time of need. After abolition of land revenue the holders of such jagirs may not have the same incentive for rendering service. In case of any such possible tenancy the only course left open to the trustees will be to seek redress under Section 24 (2) (iii) of the Orissa Hindu Religious Endowments Act, 1951 (Orissa Act 2 of 1952) or under the appropriate sections of the Orissa Hindu Religious Endowments Act, 1969 when it comes into force.

SOME POINTS TO PONDER OVER

The amendment has given rise to doubts in certain quarters that the proposed abolition of trust estates may come in

conflict with the fundamental rights guaranteed under Article 26 of the Constitution which, subject to certain conditions, permits every religious denomination or any section thereof to own and acquire movable and immovable property and to administer such property in accordance with law. In this context it may be pointed out that Orissa is not the first State which has taken this step. The Devasthan Inams in Gujurat have been abolished with effect from the 15th November 1969 and in Kerala the legislation with regard to Sripadam lands and Thiruppuvaram has been brought into force with effect from the 1st January 1970. The legislation of the State of Gujurat has no doubt run into rough whether as its validity has been challenged in the High Court and the religious institutions in the State of Kerala are facing difficulties due to delay in sanction of perpetual annuity. The abolition of mere intermediary rights of a religious estate may not perhaps hit the rights guaranteed under Article 26 but the point to ponder is whether the perpetual annuity can be sanctioned in time so that the Seva Puja of the deities may not suffer and thereby the religious susceptibilities of the people are not wounded. The disposal of cases which will be instituted under sections 6 and 7 of the principal Act for settlement and assessment of rent on Khas dakhals may take a fairly long time and this may in turn delay fixation of compensation to be paid in shape of annuity. There is no doubt provision for interim payment of compensation under section 38 (3) which provides that after the date of vesting and before the date of assessment of perpetual annuity under clause (2) of section 28 an interim annual payment of compensation may be made as the Collector may in each case, order to the

trustee-intermediaries of an amount which is equivalent to seventy-five per centum of the approximate amount of the said annuity to be calculated in the prescribed manner. This will, to a large extent, depend upon the timely submission of the required information and particulars by the ex-intermediaries and efficient functioning of the compensation courts. Another doubt which is entertained is that any payment of annuity from Government exchequer in a secular State may run counter to the provision of Article 27 of the Constitution which debars collection of taxes for promotion or maintenance of any particular religion or religious denomination. But this is a bogey which does

not seem to have any foundation. The payment of annuity towards compensation to an intermediary cannot be said to be a specific appropriation of the proceeds of taxes paid by the people towards promotion or maintenance of any particular religion. But the crucial point at issue is whether the payment of perpetual annuity to all the trust estates which will be abolished in due course will not be a strain on the State exchequer. After adoption of the policy of land revenue abolition the State Government will not get any land revenue from these estates but nonetheless will bear the brunt of paying annuity to them for all time to come. This is the real Achilles' heels of the whole problem.

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TIPS FOR WALKING TOURS

What I would do as a youth whether at 14 or at 40?

I would plan walking tours during many of my holidays, a short tour during short holidays. As a student I would plan walking tours during the Puja holidays, during the winter holidays or during the Summer vacation. As an officer I would plan walking tours during the Puja holidays and during holidays where Sundays can be combined to extend it to 3 or 4 days. For the walking tours my equipments would be:

(1) Clothing ... 2 pairs of Khaki half pants, 2 pairs of canvas shoes, 2 vests, 2 Khaki shikari shirts consisting of straps and pockets.

(2) Bedding ... A canvas bag 6'×3' which can be carried empty and filled with straw when needed to become a mattress.

For protection, I would carry a light canvas with

metal rings sewn all round. Spread over two up-right and one horizontal bamboo and tied to bamboo or wooden logs, would give me a tent to sleep under. I would also carry a strong Lathi.

(3) Fooding ... For food I would carry some Chuda, some salt and some chillies. For drinking, I would carry a bottle with a cork. It could be filled as I went from camp to camp. For cooking and eating, I would carry an aluminium pot and an aluminium tumbler and a match box. I would also carry a bottle of kerosene to anoint exposed parts against mosquitoes at night. For medicine I would carry some preventive against Malaria and some emergency,

medicine for Bacillary dysentery. I presume I have had my usual T. A. B. C. injection as protective against Cholera and typhoid.

With these equipments, I am ready to travel by train or bus to my starting point and then walk from camp to camp. For cooking and drinking water I would scoop out the sand near a running stream and fill my bottle and my cooking pot. For sleeping at night I will pitch my tent and get some straw to fill my sleeping bag. Before pitching tent at night I must give myself sufficient time to collect firewood and cook my food. I must have some money with me to buy banana or other fruits, as well as fish, rice, etc., whatever may be available on my route. I would try to get some work on the way to earn some money to last my tours. It is easy to get work near a Railway station by working as a porter. For that purpose I might get a licence from the Railway authorities. If any earth work is going on I might get wages for digging or carrying earth. If I am a singer I could offer to sing and accept whatever is given to me. If I am an artist I could draw portraits or sceneries and earn a little money. If I know the art of story telling I could tell stories as

Khathaks used to do in the past. If I carry a bow and arrows I might shoot a green pigeon or a jungle fowl for food. I am not planning for a gun and cartridge as it is risky to go about with a gun as the price of cartridges is prohibitive.

What I am saying is not entirely theoretical as I have lived like this on a number of occasions. Instead of sleeping in my own tent I could spend some nights on a tree and watch what is passing under the tree.

I suggest to make a youth hostel to keep some camping equipments to be put out to youth hostellers who may want to spend a few days near the youth hostel and not in it.

Excellent walking programme could be planned in the Ganjam Malias including Parlakhemidi hills, in the Phulbani district, round the coast of Chilka, in the Chandaka-cum-Dompara forests, at the foot of or on the top of Gandhamarda hills, in the Juanga pirh, and nearest Cuttack, in the Kapilas hill opposite Mahanadi, and still nearer in the Dalijoo forest near Chouduar, round the Similipal hill of Mayurbhanj district. Also there are very suitable walking tours which can be organised from Baripada. I have given only a very few ideas, but there are numerous spots in Orissa in every district.

FAMILY PLANNING AND THE QUALITY OF LIFE

More than half the population of India today consists of young people below 19. Thinking of the future, if we can't build a country where these young people have something to look forward to and fit into when it's pretty certain that India will be a combustible country. One in nine of the educated in India is unemployed. At the moment the future does not look too bright for the young. Opinion leaders keep saying that, if the sixties were the decade of food shortage, the seventies will be the decade of unemployment. The Pearson Commission did not hold out very bright hopes in the coming decades for countries whose *per capita* income now is less than a hundred American dollars a year.

This is what makes me wonder if we are not sometimes too harsh. we

Let everyman remember that to violate the law is to trample on the blood of his father, and to tear the charter of his own and children's liberty.

A. Lincoln

big difference with Europe is, I think, just that the quality of life. Much as some of them dislike it, the Americans have not really repudiated war and ethnic tensions will grow almost certainly there. Whatever may be the indications to the contrary, it is most unlikely that the continent of Europe will see a full-scale shooting war and so attention can be given to the problems of the quality of life which the different systems, socialist, capitalist and hybrid are attempting to solve in their own ways. European cities have not become a nightmare in the way that Calcutta, Tokyo or New York have; the countryside is still attractive and more and more within the reach of citizens. There are jobs, and there is the pleasing prospect of greater leisure and of ways to get the best out of it.

This is not so in India. The other day I saw a two-minute quickie about *The Dying City* which conveyed, in shrill tones, the fact that everything in our larger cities will get much worse before they get any better. In short, even if the birth rate in India can be made to fall from 39 per thousand or so of now to 25 by the eighties the population will keep on growing and the strains of metropolitan life, already pretty intolerable, will grow even more so. Life in the villages too, will grow more troubled. If you live in Kanpur or Calicut or Lucknow or Calcutta-Bombay-Madras, you will know that the spacious day, of the thirties and even the forties are forever gone...The young, in the future, will have a tougher

time than we did and that is not what was dreamt of. The Secretary of Ministry of Health said, not long ago, that the census came as a shock to the plan and all plan targets and calculations to be revised. The census of 1971 will well come as a shock, too.

Even if it sounds like the obvious should be said that getting across a message to 100 million couples (in reproductive age) or even to the million who are reckoned as "eligible" is a tremendous task, the like of which has been attempted only perhaps by the Chinese and they have chosen the way of total indoctrination and regimentation.

The problems of detail are infinite. Japanese, for instance, the people who have had the greatest success with abortions, say that it's not much to legalize abortion and using it to cut down births if there is not a good medical service to do the supervision. They legalized abortion in 1949 and for ten years or so they didn't have good medical hospital supervision. Can we attempt it? Take the loop. A few years ago it was the godsend, the real breakthrough. But if you look at the figure now the number of IUCD insertions has fallen in practically every Indian State and the side effects, perforation, bleeding, drop outs and so on are legion. So much so that the loop is not looked upon with anything like the favour it once was. In Japan the Government has still not officially approved the loop, in Singapore

Voice of the people is the voice of the God.

Rousseau

the loop is considered passed and troublesome—the emphasis there is on pill and, experimentally, on injections.

After all, both those methods are more convenient. The injection, for instance, can be once in three months. The problem present is that it can throw the menstrual cycle out of gear. But then what may be feasible in a small city-state with a highly developed mass media system where the people are already sold on family planning might not work in India. The main trouble which afflicts the loop shadows, in fact, all the other weapons we want to try. What is good for a limited programme may fail utterly in a mass effort. that is the bane of the loop.

Our problems are truly enormous. We can raise the age of marriage. But then the Sarda Act did so years ago, yet thousands of marriages openly take place in India where the parties are under age. The dowry, the giving and taking of which is now illegal, yet it is as widespread as ever.

All problems have a hundred rough edges and mysteries. I was reading the other day a report on retired people and pensioners of Bombay city; the sample covered a hundred of them. Even though they are retired they are not in great financial distress, still have a social position and are protected from loneliness because they are within an extended family. In the absence of a developed social welfare system since it is still the family which

takes care of the elderly, I think it would be foolish to imagine that the doctrine of family planning can take quick root. In the rural areas there is also no real answer to the position that more hands in a family mean more income. For those who have few resources it seems more profitable to have a larger family. Why is it, to take another rural problem, that family planning has made relatively little headway among the Harijans than among the others? This may be a generalization but it has a hard core of truth and I am trotting these examples out to indicate that the problem of persuading people to control the size of their families is a much bigger and more complex problem than most of us imagine.

I feel, in fact, that the task of persuasion has not been done well. True we now see hoardings and posters even in the most unlikely and remote places and there is much more of a stir about family planning than there was a few years ago (in fact it will even be a mystery why, in the first decade after independence, the Government remained so lackadaisical). In the business of family planning propagation it is said by the experts that the standard media have proved far less effective in India than the non-conventional ones like signs painted on village homes, word of mouth communication and so on. Unfortunately research on the mass media and family planning is poor in India and is certainly not of the depth or quality as to indicate which have been the really significant ways of getting across.

"The youth of a nation are the trustees of posterity."

Benjamin Disraeli

And so sometimes I wonder if we should not go on keeping our fingers crossed and hoping that the scientists will come through with a really fool-proof remedy: the certain pill, a "morning after" pill, the slow-acting drug which remains in the body for a long time, the injection, with no side effects or something like that.

There are hopes that a break-through might emerge and may be the chance would improve if there were set up really powerful research laboratory under UN auspices which would get together the best workers of the world and try to solve this problem, which is the curse of the entire underdeveloped world.

A microwave system is being installed between Bhubaneswar and Cuttack to provide for the large number of circuits that are essential for handling the trunk traffic and for providing a large block of circuits between the two stations that will be required for handling the traffic that is expected to be generated on introduction of the subscriber trunk dialing service between the two stations on completion of the installation of auto exchanges that is now in progress both at Bhubaneswar and Cuttack. The system will have an ultimate capacity of 300 channels and an initial equipped capacity of 132 channels.

A microwave system to operate between Cuttack and Sambalpur has been programmed for the 4th Five-Year Plan.

The Bombay-Nagpur-Calcutta microwave system which has also been programmed for the 4th Five-Year Plan will pass through Sambalpur and will provide direct circuits between Sambalpur and important stations on the Bombay side and Calcutta side. Also circuits from this system will be extended to Cuttack and Bhubaneswar over the Sambalpur-Cuttack and Cuttack-Bhubaneswar microwave systems.

A Calcutta-Madras Coaxial cable scheme which will pass through Berhampur, Bhubaneswar, Cuttack and Balasore has also been sanctioned. The route survey for this system has been completed and selection and acquisition of sites for Repeater Stations is in progress.

Economy is half the battle of life, it is not so hard to earn money as to spend it well.

Spurgeon

Promise of the Gandhi Centenary

Bapuji's vision of Swarajya envisaged a society where full economic benefits and opportunities would be available to every citizen, where prosperity would be equally distributed among all the strata of society, where all forms of exploitation would disappear. This, a truly socialist ideal, has been enshrined in our Constitution. To achieve such an ideal society, it is essential that the schemes for economic progress and growth are available to everybody, irrespective of where he or she lives, whether in the big cities or in the remotest and the tiniest of hamlets.

That electricity is a basic and essential requirement, not only for human comfort, but also for economic progress and development, is now universally accepted. It is by far the most convenient and versatile form of energy so far known. It is amenable to efficient transmission and to

convenient and ready conversion to any other form of energy, such as light, heat or mechanical energy.

Besides providing human comforts like light and heat, the supply of electricity in each village and hamlet will give opportunity for increased agricultural production, development of agro, small-scale and cottage industries, diversification of employment, development of dairying, poultry farming, food processing and storage. At the same time it frees human beings and animals from unnecessary drudgery. Electricity, in general, would result in increased prosperity, human comfort and dignity, bringing us nearer to Gandhiji's dream of Swarajya.

GANDHIJI'S PHILOSOPHY

Some people might think that Gandhiji was opposed to mechanisation and

Taxes are the sinews of the State.
Cicero

modern techniques, including electricity. This, however, is not correct. He was opposed to mechanisation whenever it tended to concentrate power and wealth in a few hands, leading to exploitation of the masses; or when it increased or maintained large economic disparities between man and man. He welcomed mechanisation and therefore, electricity, as a means of raising production or for saving labour if it would benefit the worker.

Gandhiji wrote: "If we could have electricity in every village home, I should not mind villagers plying their implements and tools with the help of electricity. But then the village communities or the State would own power houses, just as they have their grazing pastures".

Before Independence, electricity was not accorded the due status of a basic necessity. It was then classed amongst the luxuries that were made available only to the more affluent sections of society in cities, either for personal comfort or for the economic betterment of the industrialised minority. It was, therefore, treated as a commercial commodity and the production was predominantly in the hands of private licensees.

For obvious reasons, the private licensees were not interested in electrifying rural areas where investment is comparatively large, profits unassured and gestation periods long. They, thus, confined their activities to bigger cities and towns only where they could be sure of profitable

returns on investments. By and large therefore, the rural population of the country remained untouched by the benefit of electricity.

It was only through the zeal and foresight of some of the eminent engineers in the Electricity Departments of the then provinces of Madras, Punjab and U. P. and the princely States of Travancore-Cochin and Mysore that some pioneering work was initiated in the matter of rural electrification. But there too, the benefits were limited to the more affluent sections of the rural society.

PROGRESS SINCE 1951

Ever since the era of planned development in 1951, increasing emphasis has been laid on rural electrification. A big impetus was given to rural electrification by the formation of the State Electricity Boards under the Electricity (Supply) Act, 1948, which provided for extension of electricity to areas which were either not served at all or inadequately served, with the Government providing necessary finances for the purpose through loans on concessional terms.

Besides, with the Boards in charge and responsible for the production and supply of electricity for the State, it has been possible for them to extend the supply to rural areas at cheaper rates and on concessional terms. The emphasis laid in this matter in the post-Independence period can be seen from the following data in respect of investments

For forms of Government, let fools contest, whatever administered should be administered best.

Alexander Pope

made in this sector in the country as a whole :—

Period

Investment on Rural Electrification

Rs. in crores

8.20

8.01

137.85

First Plan (1951—56)

Second Plan (1956—61)

Third Plan (1961—66)

During the year 1966—69 (3 years) between the end of Third Plan and beginning of Fourth Plan when work was carried out on the basis of Annual Plans.

280.68

444.65*

Fourth Plan (Proposed) (1969—74)

* Includes Rs. 2^o4.65 crores allocated to various States/Union Territories and Rs. 150.00 crore for Central Sector, placed with the Rural Electrification Corporation, to be disbursed as loans to various State Electricity Boards on specified terms for executing specific schemes for rural electrification).

Till about the middle of the Third Plan, efforts for rural electrification were aimed mainly towards electrifying villages for domestic or municipal uses (such as for street lights) and providing power to small flour mills, rice mills or similar other loads. Till then, no specific stress was laid on providing power in the villages for irrigation purposes and the farmers were also largely unaware of the benefits that they could derive by using electricity for agricultural operations. A serious crisis in agriculture and food production developed between 1964 and 1966 due to unprecedented drought practically all over the country. This spurred the people to rely more on pumping underground water whenever electricity was available.

to the Father of the Nation. The pragmatic principle of national regeneration that Gandhiji placed before the people of India—that the prosperity of the nation lay in the prosperity of its villages—could hardly be implemented anywhere better than in the irrigation and power sectors. Power supply to the maximum extent possible, the most needed and most efficient basic tools of production—water and electric power—to the villages, satisfied the criterion eminently.

Since then the pace of rural electrification (energisation of irrigation pumpsets/tube-wells) has been steadily rising. At a meeting of the National Development Council in September 1965, it was decided to give top priority to supply electricity for irrigation facilities and agricultural production. Thereafter rural electrification programmes were largely switched over to meet agricultural needs, with a bias for supply to irrigation pumpsets and tube-wells. Electrification of villages would be incidental to agricultural supplies.

HOMAGE TO THE MAHATMA

At this juncture, the period October 2, 1969 to October 2, 1970, was decided to be celebrated by the nation as the Gandhi Centenary Year. It was to be a worthy token of the nation's respect and homage

HURDLES

The programme of rural electrification at once faced hurdles in proportion to the enhanced target and speed of implementation. The Third Plan had provided Rs. 137.85 crores for rural electrification. With this, 44,494 villages had been electrified and 513,026 pumpsets/tube-wells energised. At the same rate it would have been possible to electrify only 62,000 villages and energise 8 lakh pumpsets and tube-wells, leaving a wide gap of 38,000 villages for the Gandhi Centenary target. Lack of funds therefore came up as the biggest hurdle.

The next handicap was the shortage of materials, like poles, conductors and transformers that would be needed all over the country on a mass scale for implementing the Rural Electrification Programme.

These problems were gone into in detail at the Conference of Chairmen of State Electricity Boards and subsequently at the Conference of Irrigation & Power Ministers held at Nainital in May, 1969. New sources for adequate funds and streamlined procedures for procuring them as well as for the materials required for the programme were worked out. Every State Electricity Board raised its rural electrification target considerably above the normal.

With these measures and the enthusiastic efforts of the State Boards, the

100,000th mark of village electrification has practically been reached. According to figures received up to August 15, electricity had been supplied to 90,659 villages. With the momentum already gathered, it is fair to expect the last lap of the programme to have been duly covered by the Centenary date of October 2, 1970.

This represents roughly 16 per cent of India's villages—quite a contrast to the figure of less than one per cent of the villages enjoying the benefits of electricity during the British regime. Most of the villages so far electrified are with comparatively large populations. Therefore, in terms of population, a much larger proportion has come to be benefited. On rough estimate, electricity has come within the reach of 12.76 crore, or 35.4 per cent, of rural population. Including the urban population of about eight crore out of the total 1961 census of 43.9 crore in the country, electricity is available to 20.65 crore or 46.8 per cent of the country's population.

In the matter of energisation of pumpsets and tube-wells also, whereas at the beginning of the First Plan, there were only 18,709 energised irrigation pumpsets/tube-wells in the whole of the country, this number exceeded 1.4 million by June of this year. Concerted efforts in the field are continuing. We may hope that not only the present pace will be maintained but will be accelerated in the coming years.

Industrial Plantation in Orissa

Industrial plantations have been given proper consideration in Forest Development Plans of our country. In the First and Second Plans nearly 662,000 acres of plantations of valuable species were created. In the Third Plan, 212,000 acres of quick growing species, viz., eucalyptus and bamboos and 6 lakh acres of economic species, viz., teak, sisoo, etc., were planted. During 1966-67 and 1967-68, another 30,000 acres of plantations of industrial wood were undertaken. During the Fourth Plan, it is proposed to plant 1,25,000 acres of quick growing species at a cost of approximately 310 million rupees.

In Orissa, though our plantations have not been industrially oriented, plantations of quick growing species viz., eucalyptus, bamboos, cassia, siamea, accacia auriculiformis and economic species, viz., teak,

gambhar, sisoo, semal, casuarina, eucalyptus and cashew have been raised during the first 3 plans and also are being planted up during the Fourth Five-Year Plan. The total plantation undertaken so far constitutes nearly 350,000 acres and the annual planting area is at present about 28,000 acres under various schemes. The plantations undertaken in the schemes for soil conservation in river valley catchments, rehabilitation of degraded forests, afforestation for Soil Conservation in coastal sand dunes though primarily are not industrial plantations, but utilisation of excess materials after meeting the local needs is possible for industrial purposes. The plantations raised under the scheme of plantation of quick growing species can be classed as purely industrial plantations. In this state till 1969, 49,145 acres of such plantations have been raised at a cost of Rs. 65.91 lakhs. But the investment on

Government is a contrivance of human wisdom to provide for human wants.

Edmund Burke

such plantations has been reduced from the current year, as this has been classed in the category of state scheme instead of centrally sponsored scheme as in the previous years. These plantations in our state have been mainly geared to the needs of the three existing paper mills as these are the only large forest industries in the state.

The important consideration involved in planning for industrial plantations is that it should cater to the needs of industries and national interests. The present availability of raw materials, needs assessment, which should also help in selection of suitable species, particularly for industrial use. At present the yield of industrial wood in the country is estimated to be (6.5 m. cu. m) 230 million cft. while the present demand is of the order of (11 million cu. m) 400 million cft. The Planning Commission has estimated that the requirements of industrial wood would be nearly (22m. cu. m) 770 million cft. by 1975 and (50 m. cu. m) 1,750 million cft. by 1985. The short fall in the raw materials of pulp and paper industry alone during the 4th plan would be of the order of 1.8 million tonnes which includes 756,000 tonnes for paper and board, 460,000 tonnes for news-print, 3 lakh tonnes for rayon and 316,000 for paper grade pulp. By 1885, the short fall of about 700 million cft. of industrial wood is anticipated.

CHOICE OF SPECIES AND SITE

For industrial plantations, it is important that proper species to suit the

particular industries should be selected. It should match the site with regard to soil and climate. The rate of growth should be fast enough to yield the required type and quality of raw material economically in as short a period as possible. It is essential that these plantations should yield quick returns to meet the demand of the industries expeditiously and also to keep the cost of production to the minimum. For this purpose, only highly productive sites should be chosen for locating industrial plantations and not marginal lands which are being planned at present. The common species chosen for industrial plantations are conifers, eucalyptus and hard woods, like teak, gambhar, cassia siamea, simul, bamboo. Of these, planting of conifers, particularly of tropical Pines which yield long fibers suitable for paper and rayon grade pulp, is in the experimental stage in Orissa. The planting of *Pinus insularis* has now gone beyond the trial stage and can be adopted for large scale plantation in our high level sites. The pine plantations raised 32 years back at Dhudruchampa in Similipal forests, Mayurbhanj district has attained an average height of 100' and girth $2\frac{1}{2}$ '. The growth of pine in this plantation outside its natural habitat has been very much appreciated by eminent foresters like Prof. H. Champion and Mr. A. F. A. Lam, F.A.O. Experts. This has encouraged us to take up pine plantations in Koraput and Phulbani districts and field trials of other conifers such as *P. Caribbeae*, *P. Patul* and *Cupressus lusitanica*. Trials have

Labour is the divine law of our existence, repose is desertion and suicide.

Mazzini

so been conducted with different species of fast growing eucalyptus such as Eucalyptus hybrid, E. Saligna, E. Grandis, Canendulasis, etc. Out of these, Eucalyptus hybrid has been found to be suitable for a variety of soils and climates. The other Eucalyptus species have not so far given any promising results except in the most favourable sites. The fastest growing Eucalyptus like Eucalyptus saligna and Eucalyptus grandis are capable of yielding a higher rate of growth like 100 to 140 cft. per annum. Further research on planting these fast growing Eucalyptus in our State is necessary. The planting of hardwood except teak has not been taken up in an extensive scale. Bamboo is another important species for industrial plantation. So far bamboos mostly Dendrocalamus strictus have been raised as mixed plantation, along with other species like Eucalyptus, gambhar and sisoo. As a result, it is deprived of its due importance and very few successful plantations have been established. At present all the three paper mills in Orissa depend for their raw material only on bamboos. Two paper mills outside the state are also supplied with bamboos from this state. There is a fair scope for establishment of another paper mill in the state with the available bamboo resources. But this position is not likely to last for very long time. Bamboo forests are being gradually depleted due to lack of proper regeneration after gregarious flowering and these are also being cleared for plantation of more valuable species like teak. The systematic felling by the villagers for

meeting their agricultural needs and for basket making is another cause or destruction of bamboo forests. So there is possibility that very soon there will be shortage of bamboos for our industries and it is important that steps are to be taken for concentrated bamboo plantations.

Hitherto eucalyptus, bamboos and other fast growing species have been planted scattered throughout Orissa and not concentrated round the existing paper mills at Choudwar, Brajarajnagar and Rayagada. These consume only bamboos but recently both Choudwar and Brajarajnagar mills are utilising certain quantity of hardwood and small quantity of conifers along with bamboos for making pulps. Rayagada paper mill has already embarked up on expansion programme and they also would face shortage of bamboos in future. Therefore, the plantations of eucalyptus and bamboos should be located close to the mills, say within a radius of 30 miles so that the transport cost of the raw materials at the mill site would be very much less and therefore the mills will be in a position to pay higher royalty on the yield from these plantations. At present the royalty of bamboos per tonne varies from Rs. 8 to Rs. 28 which is rather low. Location of plantations close to the mill site will enable the mills to pay Rs. 40 to Rs. 50 or more per tonne of bamboos as the transport cost which is the most expensive factor will be slashed considerably. A rapid survey indicates extensive suitable sites are available round about Choudwar and

By uniting we stand, by dividing we fall.

John Dickinon

Brajaranagar mills, but the position is not so satisfactory for Rayagada mill.

Planting of semal on a limited scale is being undertaken for the match wood industries. It is necessary that such plantations should be located within a distance of 20 miles from rail head so that suitable units for manufacture of match splints can be established. The extensive plantation of teak being raised in different Divisions will in future provide raw materials for the ply-wood and other board industries. Attempt has also been made to plant mulberry for the sports good industry. But it has not met with much success.

SPACING

For raising industrial plantations, there is need for determining the correct spacing of various species. In Orissa almost all species are planted at a spacing of $8\frac{1}{2}' \times 8\frac{1}{2}'$. Eucalyptus which is the main species of industrial plantation is being raised at a spacing of $6' \times 6'$ in other states particularly, in Utter Pradesh, Andhra, West Bengal, Madhya Pradesh and Mysore. The reason for the wide spacing in Orissa is that the cost per acre including the cost on establishment allowed by the centre is Rs. 200 and a closer spacing would have increased the cost. In other states, the central assistance was supplemented by funds from the State's own resources to have a closer spacing. In Utter Pradesh, the cost of eucalyptus

plantation is about 450 rupees per acre including fencing and mechanised operations. In Bengal, it varies from 350 to 450 and in other States the cost is between 350 to 450. In Orissa till 1966 the cost of eucalyptus plantation was only Rs 75 per acre and since 1966, it has been increased to Rs 120. A closer spacing of a shorter rotation crop would give better results at less cost. A co-ordinated experiment is being conducted in Orissa and other states to determine the optimum spacing of Eucalyptus hybrid.

The investment in industrial plantations should be made keeping in view the benefit ratio. Highly productive sites are favoured. In U.S.A. as high a return of 12 per cent annually (compound interest) has been achieved in very favourable sites. As mentioned above in our state the average cost of raising plantations of quick growing species for industries have been kept very low. This is insufficient to ensure proper care of the plantations and application of chemical fertilizers and manures which are helpful in attaining higher yields. As a result the return from our plantations are not expected to be very high. It is necessary that the investment in plantation crop can be harvested in shorter rotation of 10 to 15 years for species like eucalyptus to give higher returns.

'Universal suffrage' without universal education would be a curse.

H. L. Wayland

Maritime Activities of Orissa

Seldom comes the occasion, effectuated by emotion in the minds of the inhabitants of Orissa except on the auspicious day of Kartika Purnima, which is popularly called as the day of 'Boita Bandana'. This day reminds and recapitulates in the minds of the Oriyas that this is the land that 'taketh away sin' (Sarvapapaharan-desam Kshetram deveistu Kalpitam — Kapila Samhita, Chapter II). This land of Jagannath and this land of Kharavela was the abode of wealth and this could be possible as history bears testimony that the sons of millionaire, better to call 'Sadhava Puas', with their sack drawn boats were throwing themselves into the mouth of the Bay of Bengal to the far off lands like Ceylon, Java, Sumatra, Bali and Borneo on this Kartika Purnima and were returning with fabulous wealth. The popular Orissa folk song "Taapoi" also bears the testimony.

The old order changeth, yielding place to the new. The wheel of the time rolls on and along with it has rolled on hopelessly and helplessly the enviable elevated glori-

ous head of Orissa. The past is always memorable, the future although uncertain is always tempting and the mixture of the past and future is the present, which is intolerant. Viewing in this light, if one thinks of the maritime activities of Orissa of bygone days, he will be astonished to know, how Orissa was rich and prosperous and what has happened to this land. But we should not be disheartened of loosing our glorious legacy. So "Ye, that thou had a glorious past and a bright future, arise awaken and prosper in trade and commerce and regain thy lost legacy, by sweat and toil—be the be all and end all and the pledge on this Kartika Purnima."

Let us stop emotion and ruminate over the bygone thoughts. Let us now come to the subject—what are the evidences on record of Orissa's maritime past.

We get the faintest allusion regarding the maritime activities of Orissa during the 5th and 6th Century B. C. The Boudha Jatakas describe that the two Burmese merchant brothers Tapoosa and Palekat

crossed the Bay of Bengal in the ship that carried full five hundred cart-loads of their own goods and they landed at Adzeitta, a port in Kalinga in the northern section of the eastern coast on their way to Suvama in Magadha.

Again in the legend of the conveyance of the tooth relic as related in the 'Dathhadhatuwariso', there is the mention of the Voyage of Dantakumar conveying the relic from Dantapura to Ceylon. The voyage was performed in one of those ships which carried on a regular and ceaseless traffic between the port of Tamaralipta in Bengal and the island of Ceylon. As Stirling observes that "In the uncertain dawn of Indian Tradition, the highly spiritual doctrines of Budha obtained shelter here; and the Golden Tooth of the Founder remained for centuries at Puri, then Jerusalem of the Budhists, as it has for centuries been of the Hindus".

The Tooth relic was enshrined at Dantapura, the ancient capital of Kalinga identified by Sylvain Levi with Palura in Ganjam district. It was taken away to Ceylon sometimes during the last quarter of the 3rd Century A. D.

Thus, from Boudha Jatakas, it is evident that Adzeitta was a seaport in north of Kalinga. But it is a matter of pity that the site of this ancient Kalinga port Adzeitta, has not yet been traced or located or identified.

Tamralipti was one of the greatest Kalinga ports. R. C. Masumdar observes that this Tamralipti is now represented by Tamuluk in Medinapur district, Bengal. From this port there was a regular voyage

which either proceeded along the coast of Bengal and Burma or crossed the Bay of Bengal and made a direct voyage to the Malaya Peninsula and to the East Indies and Indo-China beyond it. There were other similar ports of embarkation one at Palura near Gopalpur (Ganjam) in Orissa and three near Masulipatam (Madras) from which ships sailed across Bay of Bengal to the Far East.

IMPORTANCE OF TAMLUK

The Yavanas who made their expedition to Java in first Century A. D. enroute Tamluk. As Stirling observes, the starting place for such expeditions in the 5th and 7th Centuries was Tamluk, on the Hugli and the Javanese records show that the original colonists of Java started from the Orissa or Kalinga coast in the first century A. D. Both the Chinese pilgrims visited Tamluk and found it the starting place for southern voyages (Fa Hian, 399—414 A. D. and Hieuen Tsang, 629—645 A. D.). It now lies on the Rupnarayan river but in early times, the sea which is at present sixty miles off washed its harbour. Stirling observes that it was situated on the Hugli which gives a sufficiently correct idea of its ancient position.

So Java island is a derivative of the word 'Javanas' which Buddhist Javanas named. Both Java and Bali were colonised from the Kalinga or Orissa Coast in first century A. D. According to Prinsep's Table. Hindu era in Java dates from 74 A. D. and according to Sir Stanford Raffles in 78 A. D. The name Kalinga still survives as Kling in the Javanees records. Fa-Hian sailed from Tamra Lipti to Java via Ceylon and the Chinese Buddhist describes Java as full of Brahamans and Heretics.

Fa-Hian also observes that it was a maritime settlement of the Buddhists. "There are twenty-four samgharamas in this country, he says; all of them have a resident priest".

Two hundred and fifty years later, yet another celebrated pilgrim from China speaks of Tamluk as still an important Buddhist harbour, with ten Buddhist monasteries, a thousand monks and a pillar by Asoka 200 feet high. It was situated on a bay, could be approached both by land and water, and contained source of precious merchandise and wealthy population. And another Chinese traveller, I-Tsing, who followed Hieuen Tsang, thus wrote of the Bengal Port:—

"Tamralipti is forty Yojanas south from the eastern limit of India. There are five or six monasteries, the people are rich. This is the place where we embarked when returning to China."

Indigo, mulberry, and silk, the costly products of Bengal and Orissa formed the traditional articles of export from ancient Tamluk. Although the sea has long since left it, the town continued till 1869 as the great maritime outlet from Orissa. Although finally transferred in 1725 to Bengal, Tamluk bears evidence to its ancient connection with Orissa by its legends, by its local customs, and by its vernacular speech. As Stirling observes Midnapur formed part of Jaleswar Sarkar under the early Mughals. Murshid Quli Khan annexed Midnapur from Orissa to Bengal in 1707. In 1760 Mir Kasim gave Burdhan, Midnapur and Chittagong to the East India Company and in 1765 when the Diwan of Bengal, Bihar and Orissa was granted, the Midnapur portion

was considered to be part of Orissa. Many Orissa idioms survive in this region, and the surnames of the people bear witness to their Orissan origin as Maiti, from Mahanti. The children in some village schools of Mindnapur district learn Bengali in the morning and Oriya in the afternoon. They still adhere to the almanac used in Orissa. Until 1869, it continued to be an important commercial centres when Kendrapara canal was opened.

EVIDENCE OF VAITAL TEMPLE AT BHUBANESWAR

Radha Kumud Mukharji's book on Indian Shipping speaks of the building of Boats in Orissa in the sixth and seventh century A. D. The constructional parts of the Vaital temple Bhubaneswar represents the picture of an upset boat if viewed from a distance. This signifies the art of ship-building was known to the people of ancient Orissa.

SAMBA PURANA AND HIEUEN-TSANG'S ACCOUNTS

In Samba Purana, it has been mentioned that after the idol was placed in Konarka or the Black Pagoda, priests were brought from Persia to worship Lord Sun as they were the true devotees of Sun. This conclusively proves that Konarka was a sea port of Orissa. Quite adjacent to it, the river Chitrotpala was flowing. The river Chandravaga was a part of this river. Stones from far off Nilagiri hills were brought to Konarka through this river. Ptolemy has named this Konarka as Konayar. In 7th Century A. D., Hieuen-Tsang has named this Konarka as Chelitalo. Thus from Hieuen Tsang's accounts it is well-known that Chelitalo was also a seaport of Orissa.

CHILIKA PORT

During 319-323 A. D., the maritime invasion and conquest of Orissa by Yavans under Red-Arm (Rakta Bahu) took place. The King Sobhan Dev fled with the sacred image of Jagannath, Balabhadra and Sonepur. According to Stirling the Chilika Lake was formed when Rakta Bahu waged war with the ocean. Purushuttama Deva, who ruled over Orissa from 1479 to 1504 A. D. had proceeded for Congevaram expedition, through Manika Patana, a place on the mouth of Chilika. Lord Jagannath and Balavadra had to mortgage their ring to a milk-maid named Manika, on their way to Congevaram to take the side of Purusuttam. So in fifteenth and sixteenth century A. D. Chilika Lake was a port for maritime activities of Orissa.

PRACHI RIVER: THE DOOR TO SEA-TRADE

From the accounts of 'Vakti' poet Achyutananda, it is learnt that during Prataprudra's regime, in the early part of the sixteenth century, both the sides of the river Prachi were thickly populated. The greatness of Prachi or Prachi Mahatmya, bears testimony of the commercial intercourse of Orissa with different states.

DHAMRA, PIPILI: IMPORTANT PORTS

In 1514 A. D. the Portuguese established their settlement at Pipili. Pipili was a

natural harbour situated at a distance of four miles from the mouth of Suvarnarekha.

The Dutch, who were the rivals of the Portuguese founded their first settlement at Pipili in the year 1625 A. D. but shifted their factory to Balasore by about the 1630 A. D. owing to the constant fear of Portuguese attack. In May 1633, the English traders establish their first factory at Hariharpur and in the month of June, a second one, at Balasore.

Dhamra, was one of the important centres for import and export of salt. On the coast of Balasore besides Dhamra, there were four other important ports namely, Sarathachchanuya and Laichchanpur. Quite adjacent to the mouth of the river Devi Machchagaon was one of the important centres for export of paddy. The river Devi was suitable for navigation upto the 19th Century.

On the bank of river Mahanadi there were three important commercial cities namely Baidyeswar, Kantilo and Padmabati. Sailors were importing from these centres salt, spices, cocout and utensils made out of brass and in exchange from Sambalpur were bringing Cotton, wheat, paddy, iron turmeric and seri culture.

As ill luck would have it, all these ports were buried in sands and since there, there was a partial halt in the commercial march of Orissa.

India's Atomic Energy and Space Research

India has been producing power from the atom for the past eighteen months, since April, 1969, when the 380 MWe Tarapur Atomic Power Station, 100 km. north of Bombay, went into operation. The first nuclear power station in the country, Tarapur also marks the beginning of India's nuclear power generation programme.

Two other atomic power stations are under construction in the country: one at Rana Pratap Sagar in Rajasthan and the other at Kalpakkam in Tamil Nadu both of 400 MWe capacity. While the Rana Pratap Sagar station is being built with Canadian assistance, the Kalpakkam plant is an wholly Indian effort with almost 80 per cent of the components coming from the Indian industry. With Kalpakkam, India's nuclear capability can be said to have come of age and the 1944 prophecy of Dr. Bhabha that "when nuclear energy has been successfully applied for power production India will not

have to look abroad for its experts but will find them ready at hand," is largely coming true.

The Indian nuclear programme has two objectives: generation of cheap electric power, and use of atomic energy for bringing about improvements in agriculture, industry, medicine and other fields. For achieving the first objective, the country has a well-defined nuclear power programme. The second being realized through the Bhabha Atomic Research Centre at Trombay which is the national centre for research and development work.

NUCLEAR POWER PROGRAMME

The nuclear power programme has as its ultimate goal the use of thorium of which India has substantial resources. The growth of nuclear power capacity has been visualised in three stages: first, setting up of dual purpose natural uranium fuelled plants producing power

and plutonium. Both the stations being built at Rana Pratap Sagar and at Kalpakkam and those planned for the decade are of this type. The next generation of power stations will have advanced thermal reactors producing more plutonium, and the fast breeder reactors producing plutonium as well as U-233, another fissile uranium isotope, from thorium. Uranium 233 will go into the third generation of reactors—the thorium breeders which will be operating on the uranium-233-thorium cycle. These breeders will be fed only with thorium.

Tarapur, an enriched uranium fuelled station built by the International General Electric Co. of the U.S.A., is a departure from the plan as the intention was to initiate the nuclear power programme and give Indian engineers immediate opportunity of participating in the building of a well-tryed out system.

DECADE'S NUCLEAR PLANTS

Recently, Dr. Vikram Sarabhai, Chairman of India's Atomic Energy Commission, made a projection of the country's nuclear plans for the decade 1970—80 which includes the setting up of three new nuclear power plants with a total capacity of 1,500 MWe so that by the end of the decade, the total nuclear power generating capacity would be around 2,700 MWe. This modest plan is formulated with the twin considerations of economy and the need for maximum acquisition of know-how and experience in mind.

The nuclear power programme rests on a number of support facilities which are being built up in the country. To feed

the coming stations, a nuclear fuel comp is taking shape at Hyderabad which produce uranium oxide fuel and clad material. In the same area is located Electronics Corporation of India, Government concern which manufacture a large range of nuclear electronic instrumentation and equipment.

India has modest deposits of uranium at Jaduguda and a number of other places. Uranium is being mined and processed at Jaduguda. In the south of the country are monazite processing plants—Chavara, Alwaye and Manavalakurichi—for separation of thorium and rare earths from the beach sands of the States of Kerala and Tamil Nadu. Thorium itself is finally extracted at a thorium plant at Trombay.

Heavy water, an essential component of a natural uranium fuelled station is now being produced in small quantities at Nangal in the Punjab. Two other plants with larger capacities are being built at the Rajasthan Atomic Power Project and at Baroda in Gujurat State to cater to the expanding power programme.

IMPORTANT LANDMARK IN NUCLEAR DEVELOPMENT

To go on to the second phase of the plan, plutonium is being separated at the plutonium plant at Trombay. The Trombay plutonium plant is an important landmark in India's nuclear development as it was constructed entirely by Indians. At the time it was built (in early 1964), only four other countries—the U.S.A., U.K., France and Russia had operating fuel reprocessing plants. To extract

Plutonium from spent fuel of power reactors, a larger plant is being built next to the Tarapur Atomic Power Station.

India is now thinking in terms of big nuclear powered agro-industrial complexes with large nuclear power stations with consuming centres of electricity-intensive industries like aluminium, fertilisers, etc. Studies have revealed that it will be economically viable to have such a complex in the western region of the State of Uttar Pradesh in north India.

Research and development support as well as trained personnel for the various nuclear projects come from the Bhabha Atomic Research Centre, Trombay. The Bhabha Centre is the erstwhile Atomic Energy Establishment which took over the major research and development effort in this area in the Fifties from the Tata Institute of Fundamental Research. The Tata Institute, established in June 1945, is known as the cradle of India's nuclear programme as the first group of scientists and engineers was trained and the programme initiated by it under the late Dr. Bhabha.

BHABHA ATOMIC RESEARCH CENTRE

The Bhabha Atomic Research Centre employs over 5,000 scientists and technical personnel whose work covers a gamut of disciplines as diverse as Electronics and Biochemistry. It has three research reactors: Apsara—a 1 MW swimming pool type reactor designed and built wholly by Indian scientists and engineers, Cirus—a 40 MW reactor built with Canadian assistance, and Zerlina—a zero energy reactor also designed and built entirely by

Indians. Besides the reactors, the Centre has a number of well-equipped laboratories and research facilities which include a 5.5 Mev Van de Graaf accelerator, a Food Irradiation and Processing Laboratory, a radiological laboratory, radioisotope production units, electronics development units, engineering workshops, etc.

The Centre is engaged in evolving new mutants of foodgrains such as rice and groundnut developing processes and procedures for increasing the shelf-life of potatoes, onions, mangoes, fish, meat, etc. and developing applications of radioisotopes in industry, agriculture and medicine. More than 350 kinds of radioisotopes and labelled compounds are produced by the Centre out of which a large range is exported; many advanced countries being among the buyers. The Centre markets radiography cameras, gamma irradiation chambers, high vacuum equipment, plasma torches, nuclear data processors, oscilloscopes, etc. It has developed the country's first real time digital computer TDC-12, which is being taken up for commercial production by the Electronics Corporation of India, Ltd.

To meet the needs of the various nuclear projects in the country, it also trains annually 150 engineers and scientists for specialized work in the nuclear and space projects that are coming up.

SPACE RESEARCH & ATOMIC ENERGY

Space research and work in atomic energy have close links in India. The Department of Atomic Energy which is responsible for administering the atomic energy programme was entrusted the subject of space research in 1961.

The space programme is managed by the Indian Space Research Organization. Over the last few years a complex of space units has grown around Trivandrum in the South. The major unit of the complex is the Thumba Equatorial Rocket Launching Station, a U. N. sponsored rocket range for meteorological and other scientific experiments in the atmosphere above the magnetic equator which passes near Thumba. Next to Thumba is the Space Science and Technology Centre which is developing indigenous space technology. A number of Indian rockets of the Rohini series have been developed and are being tested. India is also manufacturing the Centaure two stage rocket under licence from France and the propellant for it. According to the space plan announced recently by Dr. Vikram Sarabhai, India will attempt a satellite launching in 1974 when she plans to put a 30 kg. payload in a 400 km. orbit. For this purpose another rocket range is being prepared at a place called Sriharikotta about 100 km. north of Madras City on the eastern coast. Towards the end of the decade India plans to haul 1,200 kg. payloads into 40,000 km. orbits.

COMMUNICATIONS SATELLITE

In between are plans to put up an Indian communications satellite. India's space programme revolves around the country's needs to accelerate development, and communications through satellite-TV is an

important component in this effort. A pilot project was undertaken to study the impact of televised programmes in a selected rural area round Delhi a few years back. The result have been very encouraging and has led India to plan a Satellite-TV project in co-operation with NASA. In 1973 NASA will be launching its ATS-F satellite which will be used by India to beam programmes to 5,000 villages selected in clusters of 4 in different regions of the country. The overall objective will be to bring about faster progress in family planning, agricultural production, literacy, and prom national integration. Experience in satellite communications technology is being acquired at the Experimental Satellite Communication Earth Station at Ahmedabad which also imparts training to students from other developing countries. At Ahmedabad around 97 km. north of Poona, a commercial satellite communications station is being built which will utilize the Intelsat III satellite in orbit over the Indian ocean.

India's atomic energy effort is in its 27th year, having begun with the setting up of the Tata Institute of Fundamental Research in June 1945. This effort aimed at harnessing the atom for development has brought about a technological spin-off with the result that today the country is building atomic power plants, giant radiotelescopes, cyclotrons, satellite communications stations and other sophisticated items demanding an advanced technology and skill manpower.

Freedom is not worth having if it does cannot freedom to err.

Jefferson

GROUND WATER AND ITS UTILISATION FOR IRRIGATION IN ORISSA

Water constitutes one of the primary natural resources and no form of life is possible without this. There has been an ever increasing demand for water with the march of time. The use of water in industry and agriculture increased greatly after the second world war. By 1945, this use of water had almost doubled compared with the position that was prevalent ten years before.

It is needless to explain the importance of increase in agricultural production. Irrigation is one of the most important means to ensure self-sufficiency in agriculture. Three-fourth of the population of India depend mainly on agriculture and half of the national income comes from agriculture. In our State the net cultivable area is about 16 million acres out of which paddy accounts for about 63%. Through the State is having vast irrigation potentialities, only a small fraction has been exploited yet. At the end of the Third

Plan, the potential from major and medium projects has been raised to about 1.22 million acres only. The drought condition in the last few years in several parts of the country and continued food shortage have brought into sharp focus the importance of providing greater irrigation facilities. Our planners have accordingly stressed the urgency of exploitation of both surface and ground water resources.

Lift irrigation is undoubtedly an easy source of providing irrigation facility for boosting agricultural production. This can be done either by tapping the underground water resources through installation of tube wells or by pumping from the perennial streams. Flow irrigation to the cultivated areas situated in upstreams of the rivers or at higher contours needs heavy capital investment and any such project would take pretty long period for execution. That is why the development of ground water resources has gained greater significance.

GROUND WATER... ..

The utilisation of ground water was probably first conceived by ancient Persians. They constructed tunnels and shafts to tap ground water sources. The early Egyptians and Chinese were familiar with drilling methods and were able to sink bore holes to obtain water from underground sources.

The advance made since the turn of the century in the improvement of well-drilling methods and pumping equipments, particularly in the deep well turbine pumps, have resulted in a marked upward trend in use of ground water for rural, municipal and industrial water supply.

For utilising the underground water resources normally deep tube wells of

12"×6" are sunk to a depth of 300 to 400 ft. Shallow tube-wells of 6" and 8" dia sunk to average depth of 100 ft. Normally direct rotary rig is employed for installation of these tube wells.

For a deep tube well, usually 80 to 120 ft of aquifer is encountered where 6" dia slotted pipes are provided and in the top portion 12" dia casing pipes are used for housing of the pump. Well screen slot openings are selected from a study of Sieve analysis data for samples representing the water bearing formation. For shallow or filter point tube wells 40 to 60 Ft. of slotted pipes are provided.

The possibilities of lift irrigation in different areas of the State together with the approximate expenditure are indicated below:

Type of Tube well	Estimated cost (approximate)	Ayacut area in acres		Discharge in cusecs	Feasibility
		Rabi	Khariff		
(1)	(2)	(3)	(4)	(5)	(6)
	Rs.				
1. Shallow or filter point tube well fitted with 5 or 7.5 H. P. pumping sets.	10,000 to 15,000	25	40	½ cusecs	Old river basins notably in the districts of Ganjam, Koraput and parts of Puri. May be possible in Keonjhar district.
2. Medium or deep tube wells fitted with 12.5 or 15 H. P. pumping sets.	35,000 to 40,000	60	100	1 to 1.25 cusecs	Balasure, Cuttack and portion of Puri district.

Potential created for irrigation in the state by tapping underground resources (upto March 1959) are as follows :—

Name of district	Completed & energised projects	Civil Works completed but not energised	Civil Works incomplete not energised	Civil Works incomplete not energised	Total Ayacut in acres
(1)	(2)	(3)	(4)	(5)	(6)
	Acs.	Acs.	Acs.	Acs.	Acs.
Cuttack ..	2,600	700	900	100	4,300
Puri ..	720	30	750
Ganjam ..	2,970	260	400	..	3,630
Koraput ..	30	330	360	..	720
Balasore ..	1,680	180	1,160	60	3,080
Total ..	8,000	1,500	2,800	160	12,480

After completion of the incomplete Projects, facilities for intensive and assured irrigation for an ayacut of 12,500 acres will be available. But from the completed projects practically there is hardly 25% utilisation as people are thinking lift irrigation as a means for Rural Electrification.

The path of duty is never sprinkled with rose-water, nor do roses grow in it.

.. Lokamanya Tilak

OUR INDUSTRIAL RELATIONS

With a view to implementing the labour laws effectively, Government of Orissa have strengthened the State Implementation machinery by establishing two Industrial Tribunals and two Labour Courts at Bhubaneswar, independent of the Administrative Tribunal. Setting up of another Labour Court for quick disposal of cases is also under consideration.

The Government of India have appointed a Regional Labour Commissioner with headquarters at Bhubaneswar for implementation of the jurisdiction of the Central Government in Orissa. The mine workers and employees of the industries coming under the Central jurisdiction are being benefitted by this arrangement.

Orissa had no separate labour policy prior to 1967. It was felt that a definite labour policy should be evolved and made known to all concerned. Accordingly the matter was placed in the Labour Advisory Board meeting on 2nd and 3rd June, 1967 and the following decisions taken :

- (1) There should be no victimisation or appeasement, in other words all labour laws should be implemented in letter and spirit.
- (2) All possible delay should be avoided at the stage of conciliation and adjudication so as to afford quicker relief to the workmen.
- (3) All tripartite decisions meant for the purpose of maintenance of industrial peace should be given due weightage.
- (4) Ample opportunities should be provided to the workmen and the employers to sit across the table and discuss matters of mutual interest having thereby very little room for discord and disharmony.
- (5) All kinds of physical duress including Gherao shall be discouraged.
- (6) The management and workers should be educated in the manner and method of management of labour and adjustability.

The code of discipline in industry is being followed in letter and spirit and time limit has been fixed for speedy disposal of industrial disputes viz conciliation adjudication etc., at all levels.

Archaeological Treasures of Chandeswar

Village Chandeswar in Khurda sub-division of Puri district is the abode of the famous Chandeswar Mahadev temple. It is about one Km. from the Bhubaneswar-Berhampur Road near Tangi and can be approached round the year by service Bus. The vast ruins of the shrine can be seen amidst a thick mango tope at the outskirts of the village and near a tank. The location of the monument naturally enhances the calm and seren atmosphere of the place.

The main temple which stood at the centre of the compound no longer exists. The gradual damaging condition of it enabled the local people for its complete break down and possible reconstruction in future. Accordingly, they formed a Committee, collected donations from the local people and made some attempts for reviving the glory of this age-old shrine. Artisans well trained in this work from Bhubaneswar were engaged and the temple was reconstructed up to a height of five

feet or so at a cost of Rs. 8,000 (towards labour charges and binding materials). But the idea seems to have been abandoned since then, probably due to lack of finance.

After the collapse of the main temple, dressed stones and decorative pieces as well as loose sculptures are now found scattered in and out side the compound. The compound wall some how or other is in manageable condition but cracks have been noticed at several places due to growth of vegetation and continuous negligence. The wooden doors fixed to some of the passages have been damaged and missing. Main entrance to the compound has been provided at the East and visitors after taking their bath in the neighbouring tank pay their homage to the deity by passing through this way.

The Sivalinga traditionally known as 'Chandeswar Mahadeva' is in the usual condition even after the collapse of the main shrine and subsequent removal of

debris and reconstruction. The wooden Viman over the Siva Linga is also intact. The Linga is projecting to a height of about 2' above the 'Yonipitha'. The Yonipitha is encircled by a copper snake whose head forms a canopy over the Linga. The wooden mandap has been carefully protected from natural agencies of decay and destruction with the provision of tinned roof.

The Jagamohan which was constructed in front of the main temple has also gone out of existence up to the surrounding ground level even before the collapse of the main shrine. Except the ground plan nothing significant can be gleaned from its ruins. At the centre of the Jagamohan, a fragment containing three figures from the Navagraha slab is kept, over which a bull of later addition has been installed facing the deity.

The other miniature shrines for Durga, Laxminarayana, Patitapavan, etc., are of definitely later additions. They are devoid of architectural beauty and workmanship but many of the loose sculptures preserved inside belong to much earlier date. A thatched Rosoghara and Yangya Mandapa along with a well has also been noticed in the compound.

In the Durga Devi temple which was probably served the purpose of Nat-Mandir in earlier days, has been enshrined with standing Mahisa Mardini Durga image closely affixed to the back wall. Goddess Durga is seen trampelling over the buffalo-formed-demon which is a conventional form followed by the artists. Except Sula, Khadga and Chakra all other attributes and decorative ornaments are difficult to be traced out as they have been completely rubbed off due to continuous use of vermilion and other cosmetics.

The inner space of this edifice preserve two Parsvadevatas, Ganesh and Kartikey of the main temple along with a number of beautiful decorative sculptures like Vishnu Kartikeya, Ganesh, Pravati, Rati-Kamadeva Vinavadini, Lady combing hair, carefully collected from the ruins of the collapsed temple. But during my subsequent visit to the place I failed to notice three of these beautiful sculptures Rati-Kamadeva, Vinavadini and Lady Combing hair. They all once adorned the niches of the main temple. At the entrance of this shrine figures of Ganga and Yamuna have been installed. To a little distance on the same level out-side the beautiful carved 'Tulasi Chaura' indicates significantly the architectural beauty of the main edifice.

Kartikeya (60"×30"), the Parsvadevata of the western side is a four-handed standing figure carved on a double petalled lotus pedestal. Both cock and peacock are depicted as vehicles of the deity. Trident, Varada and Abhaya Mudra are the attributes of the three hands while the fourth one rests on the cock which is lifted by a lady attendant. The attendant carved to the right is much damaged but its lower right hand touches the beak of the peacock. Kirtimukha, heavenly damsels and conch blowers are carved at the top of the image. Among the decorative ornaments and costumes, trijata on the head, bangles in hands, four stranded girdle fitted with tassel, tinkling bells and circular medalion at the centre on the waist, multistranded necklace with padak (locket), Kiritamukuta and Pounji, etc., enhance the beauty of the image.

Ganesh, the Parsvadevata of the southern side preserved in the Durga Devi temple also appears in the same type of

double petalled lotus pedestal. Its measurement approximately correspond to that of the Kartikeya figure noted above. Of the four hands, three are noticed with Ankush, Akshamala, Pot containing ladukas (Sweet balls), while the fourth one is damaged and missing. Mouse, the vehicle of the deity is carved at the right hand conner. Flying Gandharvas, Conch blowers and Kirtimukha dancing figures are depicted at the top. Among the notable decorative ornaments and costumes, Sarpopavita, Udarbandha, Sarpojatamukuta, Kiriti, two rows of bangles in each hand, beaded Vajubandha, rings (in some of the fingers), pouse, bhujanga vala, and a well-designed necklace are some of the items which provide sufficient proof of the aesthetic sense of the people of that age.

Parvati, the Parsvadevata of northern side is exceedingly beautiful in workmanship due to the effective provision of decorative ornaments and costumes. Such type of ornamentation is very rarely depicted and preserved up-to-date in the temple sculptures of Orissa. A typological study of this aspect of Orissan sculpture will reveal the true cultural heritage and artistic merit of the people of that age. This image along with 10 other decorative sculptures like Gajavidala, Naravidala, Nayika etc., are still kept near the southern compound will be fully exposed to sun and rain and shrouded by wild creepers hanging from the wall top. The image of Parvati was much damaged at the fall of the temple but the damaged pieces are carefully collected and bound in their places. The entire image has been given a cement concrete protection at the back and two sides. The image in four hands is carved standing on a double petalled totus pedestal. Varada, Sarpa, Ankusa and Padma are the attri-

butes in four of her hands. Lion, the vehicle of the deity is placed to the right. Two lady attendants are carved standing one on each side at the background of whom miniature "Khakara mundis" are observed. Flying Apsaras with wreath in hands, Kirtimukha flanked by conch blower are noticed at the top. Vahi-chudi, pouse set with oval beads, Krushnachulia vala, Galahara (necklace) fitted with beaded chains and a multipetalled locket at the centre; three stranded Upavita with a knot at the centre; Kiriti on the head, Kana-phula (ear ornaments); Vajubandha (arm-lets); Kativastra and a beautifully designed girdle fitted with circular locket inside of which a lion head is depicted, oval beads, tinkling bells and tassels containing top knots are the most noteworthy decorative ornaments and costumes.

Images of Nrusimha & Varaha Vishnu are loosely kept in one of the miniature shrines of either sides of the Laxmi-Narayana temple. The figure of Lazmi-Narayana (of later period) carved in sitting posture on a lotus pedestal is worshipped at the centre of the temple. Narayana has been provided with the usual Samkha, Chakra, Gada and Padma. Laxmidevi comfortably sits on the right foot of Narayan which has been placed on the left lap. To the left of this, an image of Trivikram has also been affixed to the back wall. To the right of Laxmi Narayan two separate Vishnu images are in worship. The image at the extreme is comparatively bigger in size and superior in workmanship. Both of them carved in standing position on lotus pedestals. Bigger one has been provided with Garuda, Brahma-Sridevi, Bhudevi, Vanamala, Kiritimukuta as well as devotees.

(See page 38)

Expansion of Educational Facilities

A spectacular expansion in educational facilities has marked the two decades of planning in India since 1951.

The average growth in enrolments was as high as 7 per cent each year since 1951—the total enrolments in the country having risen nearly four times, from 25.5 million in 1950 to 70.7 million in 1965 and 84 million in 1969-70.

The highest annual growth rate was in the professional and special courses at college stage being nearly 17.8 per cent, followed by 16.1 per cent in the pre-primary stage of education. The annual growth rates in the enrolments in high and higher secondary education, higher education, middle and primary classes were 10.0 per cent, 9.3 per cent, 8.4 per cent and 6.7 per cent respectively. In 1965-66, 76.7 per cent of the children in

the age group of 6—11 and 30.9 per cent of the children in the age group of 11—14 were attending classes, as compared to 43.1 per cent and 12.9 per cent in the corresponding age groups in 1950-51.

ANALYSIS OF EDUCATIONAL EXPANSION

This educational expansion was inevitable, as it was impossible to resist the urge for education, specially among those classes to whom it had been denied before Independence. Popular pressures in a democratic society, based on adult franchise, also accelerated the pace of expansion of educational facilities, particularly in the middle and higher categories.

A statement, showing the growth of enrolments in 1950-69, which reflects the demand for and response to expansion of

Various categories of educational facilities, is tabulated below (in thousands).
 Growth in the number of students by levels of education from 1950-51 to 1969-70
 (Figures in '000)

Category of education	1950-51	1965-66	1969-70	Average rate of annual growth from 1950-51 to 1965-66 (percentages)
(1)	(2)	(3)	(4)	(5)
Primary ..	28	263	350	16.1
Primary classes (6-11) ..	19,155 (43.7)	50,470 (76.1)	47,660 (78.2)	6.7
Elementary classes VIII (11-14) ..	3,120 (12.9)	10,530 (30.9)	13,210 (33.6)	8.4
Higher Secondary classes IX-XI (14-17).	1,277 (5.6)	5,280 (17.0)	7,110 (20.2)	10.0
Higher Education (17-23) (Arts, Science and Commerce).	325	1,240 (2.3)	1,865 (3.1)	9.3
Professional and Special courses at School standard.	1,597	2,176	3,000	2.1
Professional and Special courses at College standard.	61	715	1,000	17.8
Total ..	25,543	70,674	84,195	7.0

*Includes adults studying in centres for adults schools

It will be noted that the highest annual growth rate was in the professional and specialised courses at the college level about 17.8 per cent followed by 16.1 per cent in the pre-primary stage of education. The annual growth rate in the enrolments in high and higher secondary, college, university, middle and primary classes was 10.0 per cent, 9.3 per cent, 8.4 per cent and 6.7 per cent respectively.

In 1969-70, 78.2 per cent of the children in the age-group of 6-11 and 33.6 per cent of the children in the age-group of 11-14 were attending Classes I-V and VI-VIII, respectively, as compared with 43.1 per cent and 12.9 per cent in the corresponding age groups in 1950-51.

RISE IN EXPENDITURE

The total expenditure (Plan & non-Plan) on education increased from Rs. 144 crores in 1950-51 to Rs. 850 crores in 1968-69.

The development expenditure during the First, Second and Third Plans and the three Annual Plans (1966-69) was Rs. 152.9 crores, Rs. 273.0 crores, Rs. 588.7 crores and Rs. 306.8 crores respectively. There was also a steady rise in *per capita* expenditure—in 1950-51 it was only Rs. 3.2, in 1955-56 Rs. 4.8, in 1960-61 Rs. 7.8, in 1965-66 Rs. 12.1 and in 1968-69 Rs. 15.9 on education.

Thus, in the period 1950-51 to 1968-69, educational expenditure had risen 6 times and *per capita* expenditure nearly five times.

If educational expenditure is related to the national income, the percentages show an even more impressive rise from 1.2 per cent to 2.9 per cent in 1965-66.

LACUNAE IN EDUCATIONAL EXPANSION

While there has admittedly been remarkable progress in the totality of educational facilities, it is obvious that elementary education has not expanded to keep pace with the growing requirements of the population.

The Constitutional directive of universal elementary education has still to be fully implemented. Elementary education of girls has lagged behind, despite the importance attached to it since social

transformation is in many ways dependent on education of future mothers, and lag in this field leads to problems which it is not easy to solve speedily.

Another aspect of the expansion which deserves more attention is the maintenance of the quality of education. Lack of buildings and equipments and dearth of qualified teachers are some of the problems which have to be given more attention in order to maintain and improve the quality of education.

Some efforts have been made in the States and at the Centre to enrich curricula and improve text-books and teaching methods. Steps have been taken to provide educational and vocational guidance services, and develop facilities for science education and for Post-graduate education and research.

The responsibility for expansion of primary education is basically that of the State Governments and Union Territories.

PROPOSALS FOR FOURTH PLAN

In the Fourth Plan, 1969-74, activities like improvement of curricula and text-books, in-service education of teachers and research in methods of teaching, which do not require large funds but have a wide impact, will be encouraged. Educational programmes will be increasingly related to social and economic objectives.

This will require, among other things, coordination with development programmes in other sectors and the drawing up of a perspective plan on the basis of manpower needs, social demand, and the

EXPANSION OF....

ely availability of financial, material and human resources.

Some of the weaknesses in the educational programme are also sought to be remedied in the Fourth Plan in which

Rs. 823 crores have been allocated for education, of which nearly one-third is for elementary education. The distribution of allocation in the Forth Plan is summarised below :

(1)	Outlay (Rs. crores)	Percentage distribution of the outlay
	(2)	(3)
Elementary education ..	234.74	28.5
Secondary education ..	118.32	14.4
University education ..	183.52	22.3
Teacher Training ..	21.17	2.6
Social education ..	8.30	1.0
Other Programmes ..	118.75	14.5
Cultural Programmes ..	12.49	1.5
Technical education ..	125.37	15.2
Total ..	822.66	100.00

In the Fourth Plan priority has been given to the expansion of elementary education, and emphasis placed on the provision of facilities for backward areas and communities and for girls.

It is further proposed that a survey should be undertaken in the Fourth Plan in respect of buildings and equipments in educational institutions with a view to removing the deficiencies.

Other programmes of education in the Fourth Plan will be improvement of teachers' education; expansion and improvement

of science education; raising standards of Post-graduate education and research; development of Indian languages and book production, especially text books, and consolidation of technical education, with a view to linking it with the needs of industry and its orientation towards self-employment.

In creased efforts will also be made to involve people in educational programme and to mobilise public support for this purpose.

Community Development: The Concept

The community development feeling and the tradition of co-operation existing in small villages was described by poet Rabindranath Tagore in an article, "Swadeshi Samaj", written in 1904. Dwelling on the bonds of kinship in the villages, he said, "To establish a personal relationship between man and man has been India's constant endeavour. One has to retain contact even with distant relatives; and our ties of kinship include neighbours and many others in the village, irrespective of caste or circumstance. We accept relationships of utility only after we have sanctified them by a kinship of the heart."

Lokmanya Tilak wrote latter, "Gram-sanstha (village organisation) has been the fundamental basis of our ancient polity. The village system was utterly destroyed during British rule. The peasant became dependent and helpless. The next step after independence would be revival of the Gram-sanstha. The village should be the

unit of Swaraj, and education, product health, police duties, famine-relief, management of forests, in fact nearly all problems should be under the jurisdiction of the Gram-sanstha or the Gram Mand.

The idea of community development occupied Gandhiji's mind all his life. Given below are few of his thoughts:

"Village organisation seemed a simple word, but it meant the organisation of the whole of India, inasmuch as India was predominantly rural. Indian village life had so much vitality and character that it had persisted all these long years and weathered many a storm. These villages were so many village republics, completely self-contained, having all that one may want — schools, arbitration board, sanitation boards and no 'Poor Law' indeed, but ample provision for the relief of the poor. The village headman was a personality in himself. He was the servant of the people whom they could go to in times of difficulties, whom every child in

the village knew and loved. He was incorruptible, he was a gentleman."

(From Gandhiji's address to students, Calcutta, September 17, 1925).

Gandhiji wrote in 'Harijan' of December 8, 1946:

"Long ago, how long history does not record, the Indian genius worked out the village and local panchayats. It remained our forte through many a turbulent period. Kings and dynasties fought and failed, empires rose, ruled, misruled and disappeared, but the villager's life maintained its even tenor, away from the din of battle and the rush of rising and falling empires. He had a village State which protected his life and property and made civilised life possible."

In his broadcast to the nation on October 2, 1952, when on Gandhiji's birthday the Community Development Programme was introduced in the country, late Dr. Rajendra Prasad said.

"India lives largely in villages; and although during recent times the urban population has been increasing at a rapid rate, it is still true that India lives mostly in villages. Anything done to bring about an all-round improvement of the villages and those who inhabit them should not only be welcomed, but given all possible encouragement by the State and by the people at large."

Late Shri Jawaharlal Nehru wrote about Community Development in March, 1954:

"The conception is much vaster. It means really covering the whole of this great country and building of a new India from

the roots upwards. There can be no greater or more fascinating adventure than this. Those of us, who are partners in this work, must therefore have some sense of pride in it and a feeling of exhilaration that they are participating in a historic task. Essentially what we are endeavouring to do is to bring about a peaceful and yet far-reaching revolution in this vast land of India. If we succeed and succeed we will, then we shall have done in our generation something worthwhile and something that will deserve permanent record. We work in our respective areas, a village or a block or a project area or a State, but, wherever we might work, we have to think of it as a part of the larger whole. We have to develop, therefore, an integrated view of our work. We want good men at the top to guide this great movement. But we want even more good men at the village level. We have to train up scores of thousands of village leaders who have a measure of initiative and pride in their work."

The Fourth-Year Plan makes observation on Community Development and Panchayati Raj as follows:

"The Community Development Programme and Panchayati Raj institutions have provided a new dimension to rural development and introduced a structural change of considerable importance in the district administration. Within the limitations of resources the programme has attempted to do something which in many cases, had never before been attempted. There has been sizeable contribution from the local communities to the developmental effort."

Somesvara—The Mine of Sculptures

Somesvara stands near the left bank of the Prachi, very close to the Kakatapur Astaranga road, about 2 Kms. from Kakatapur in the district of Puri. This site can easily be visited by availing the service bus from Bhubaneswar to Astaranga. Once upon a time, the place was full of ancient monuments and other past relics as indicated by the debris and mounds full of ancient bricks. Besides, it is a store house of images. The present Siva temple goes by the name of Somesvara. It has been renovated and rebuilt on the original ruins. Beautiful Naga images, Ashtadikpalas, Nrityaganesh, Brahma, happy couples, Varahi and sensitive erotic sculptures have been set in the southern northern and western outer walls of the temple.

The Jagamohan of the temple has been reconstructed on the original plinth fitted with the old stone door jamb carved with scroll works and having the Saiva Dvarapalas. The following loose sculptures have been set on the brickwalls of the Jagamohan:—

- (1) Hari-Hara
- (2) Vishnu
- (3) Ashtikajaradakar
- (4) Trivikrama Vishnu
- (5) Varaha-Vishnu
- (6) Nrusingh Vishnu
- (7) Audhakasuradhamurti
- (8) Yama

As I would not be a slave, so would not be a master. This expresses my idea of democracy. Whatever differs from this to the extent of the difference, is no democracy.

—A. Lincoln

Besides, images of Uma-Mahesvara, Suryya, Hari-Hara and Anantasayana Vishnu are to be found inside the Jagamohan of the temple. The artistic and beautiful representation of the Anantasayana Vishnu marks a great epoch in the iconographical history of Orissa.

To the east of the main temple, a dilapidated brick temple dedicated to the goddess Kali, still stands as the remnants of the past relics. The presiding deity is the eight-handed Chamunda holding the trident, sword, Dambaru and blood-pot in her right hands while the left hands are shown in Japamala, head and one hand

touching the mouth. The depictions of the left hands are similar to that of the same image worshipped as Jagulai which I have come across at Chahata near Amaresvara of the Prachi valley.

Thus, the site Somesvara is a mine of images of antiquarian and historical value. The credit for making Somesvara, a historical site goes to the Somavamsi rulers of Orissa. The place Somesvara testifies to have been the centre of cultural and religious activities of Somesvara, a ruler of the Someavamsi dynasty ruling Orissa in eleventh century A. D.

FOUR DISTRICTS SELECTED FOR CONCESSIONAL FINANCE FOR INDUSTRIES

On the basis of the proposals received from the States, 78 industrially backward districts in 14 States of the country have so far been selected for concessional finance from financial institutions for starting small and medium scale industries. Bolangir, Mayurbhanj, Dhenkanal and Kalahandi districts of Orissa have been selected for this purpose.

The concessions offered by certain All-India public sector financial institutions for starting small and medium size industrial enterprises in these backward districts include lower rates of interest and a longer amortisation period for the repayment of loans. The question of extending similar concessions by other financial institutions is also being considered.

The backward districts have been selected in pursuance of the decision taken by the Committee of the National Development Council in September 1969 when they considered the reports of the two working groups which were set up by the Planning Commission to study the question of regional imbalances.

Administration of Law in Orissa:

Latest Round up

With a view to ensuring better administration of Hindu religious endowments in the State, the Orissa Hindu Religious Endowments Act, 1969 was enacted during the year 1969. Instead of having a single functionary as in the old Act, provision has been made in the new Act for establishment of a Board of Management which shall look after the administration of the Hindu Religious Endowments in the State. Functions of judicial nature have been contemplated to be entrusted to the Religious Endowments Tribunal provided under section 20. The Act now awaits implementation.

For efficient management of the Debottar Institutions in the State, Regional Advisory Committees have been constituted by the State Government in the Law Department during the year 1969 under rule 107-A of the Orissa Hindu Religious Endowments Rules, 1959 for the following subdivisions.

1. Baripada
2. Dhenkanal
3. Bolangir
4. Bhubaneswar
5. Nayagarh Tahasil
6. Daspalla

7. Puri Sadar
8. Athgarh Tahasil
9. Balasore
10. Nilgiri

STATE LAW REVISION COMMITTEE

A State Law Revision Committee has been constituted under Law Department Resolution No. 11124-L, dated the 29th September 1969 to review the State Laws enacted so far with a view to suggesting such amendments which would ensure establishment of the Rule of Law.

ADMINISTRATION OF JUSTICE

In order to provide relief to the litigant public of the District of Sundargarh, the Court of an Additional District and Sessions Judge has been established at Sundargarh. It is noticed that the hearing of cases and appeals of the district of Sundargarh are expedited and the litigant public have now no more grievance on this score.

In view of the pressing demand of the local public, a Civil Court at Kodla in Ganjam district has been established by investment of Civil Powers on the Judicial Magistrate, Kodla.

For supplying necessary accommodation to the different Civil Courts and their staff in the State, it has been proposed to construct new buildings at Bhawanipatna, Sundargarh, Bolangir, Rourkela, Khurda, Admapur, Kendrapara, Boudh, Champua, Udala, Nayagarh, Ranapur, Rairakhol and Nayagarh, which have already been administratively approved. The execution of the projects depends on provision of funds for which steps are being taken to provide necessary funds for the purpose by means of a phased programme covering a period of five years beginning from the current financial year.

During the financial year, 1969-70, Government have sanctioned a grant of Rs. 2,000 to each of the Bar Associations of Bhadrak, Nowrangpur, Kuchinda and Deogarh for purchase of law books and furniture on the recommendation of the High Court as they are non-affluent Bars. This year Government have provided a sum of Rs. 10,000 which will be sanctioned to the other non-affluent Bar Associations of the State on the basis of the recommendation of the High Court.

ORISSA OFFICIAL LANGUAGE (LEGISLATIVE) COMMITTEE

The State Government constituted "The Orissa Official Language (Legislative) Committee" with the Minister, Law as Chairman and eight others as members for concentrating on the preparation of a comprehensive glossary of legal terminology and for maintaining control over the work of translation of Acts and Rules, etc.

The function of the Committee are :—

- (i) to supervise the work of preparation of a comprehensive glossary

sary of legal terminology in Oriya for use in the translation of Acts, Rules, Ordinances, Regulations and Notifications, etc., into the official languages of the State ;

- (ii) to scrutinise the draft glossary of legal terminology prepared by the Central Commission for being adopted for use in the official language of the State and to suggest appropriate modification with a view to its suitability for being so used.

- (iii) to make arrangements for the translation of Acts, Rules and Regulations passed by the State Legislature and of Ordinances promulgated by the Governor of the State into the official language of the State and to scrutinise Oriya translation of all Acts, Rules, Ordinances, Regulations and Notifications, etc., and to suggest appropriate modifications if any, so as to make the Oriya translation appropriate with reference to the terminology current in the State Official language.

After nomination of non-official members, the Committee met for the first time in the May, 1970. The Committee has been meeting from time to time and legal terminology are being finalised by the Committee for preparation of a comprehensive glossary for the present for purpose of finalising the translations.

The State Government have started undertaking the work of translation of Central Laws into the regional language of the State on the basis of payment by Government of India.

AYURVEDIC SYSTEM OF MEDICINE

The aim of all systems of medicines is to prevent and to cure human ailments. While Allopathy is the most accredited system in the modern medical science, the indigenous system of medicines like Ayurveda, Homoeopathy and Unani have their own place and value and have been as effective, if not more than as the Allopathic system. The striking features of the indigenous systems are either the cost factor and easy accessibility or adjustability in every modest environment, particularly in rural areas. In recognition of the facts that indigenous systems of medicines play an effective role in combating health hazards, a separate Directorate for Ayurveda and Homoeopathic has been created in Orissa since June 1968.

For the year 1969-70, the State Government had provided Rs. 14,30,300 (including Rs. 1,74,400 under Central Sector Research Scheme) for development of Ayurvedic

system. There are 121 Ayurvedic Dispensaries and 2 Ayurvedic Hospitals, one at Puri and the other at Bolangir in Orissa. The bed strength of the hospital at Bolangir was increased from 8 to 20 during 1969-70. One post of Kaviraj along with necessary nursing staff was sanctioned by Government during 1969-70 for the maintenance of the above additional 12 beds. Additional staff was also sanctioned for the Gopabandhu Ayurveda Vidyapitha, Puri, during 1969-70 to cope with the increasing work-load. A 30-bedded Ayurvedic Hospital is being constructed at Bhubaneswar. There are two Ayurvedic Pharmacies—one at Bolangir and the other at Puri, attached to the Gopabandhu Ayurveda Vidyapitha, Puri. Besides, several new schemes for development of Ayurveda are proposed to be implemented during 1970-71. Deputation of Ayurvedic Doctors to undergo Post-Graduate training

in Ayurveda is one of these schemes. Under this scheme, it is proposed to depute 2 candidates every year to undergo this training. The aim and object of this scheme is to enrich the State with higher qualified Ayurvedic Physicians and to remove the dearth of qualified Ayurvedic teachers. For the purpose of implementation of the new schemes during 1970-71, a sum of Rs. 4.05 lakhs and Rs. 0.50 lakhs have been provided under State and Central sector respectively.

The State Government have set up an Advisory Body entitled, "the Orissa State Council of Ayurvedic Medicine" which advises Government on Ayurvedic system of treatment. Besides, the Orissa State Faculty of Ayurvedic Medicines advises Government on registration of Ayurvedic Physicians and in the conduct of examination of students of Ayurvedic Colleges.

(From page 33)

A carved stone in the shape of miniature temple depicting Lingapuja corresponding to the one preserved in the Orissa State Museum is still lying outside the main entrance of the compound wall.

Two loose copper plate grants from a set of three issued by Sri Dharmaraja of Sailodbhava dynasty were secured from this place and published in the Kalinga Historical Research Journal by Shri S. N. Rajguru. They were originally recovered from the temple well at Chandeswar Mahadeva. Dharmaraja, the doner of this grant seems to have been flourished in the later part of 7th century and early part of the 8th century A. D.. But the general

characteristic of architecture, iconography cult images and temple complex correspond to that of the famous edifice of Lord Lingaraj at Bhubaneswar. Leaving apart the date of the C. P. grants and architectural pattern of the ruined temple it can well be presumed that this place was an important centre of religious activity under the Sailodvavas. These might be a miniature shrine belonging to the early days of the Sailodvavas till the bigger edifice was constructed by over it. Two sculptures designed in the characterstics of 8th century A. D. pattern lying at the back of the Durgadevi temple provide ample scope to such an assumption.

CALENDAR OF EVENTS, ORISSA

OCTOBER 1970

- 5-10-1970 ... Shri Prananath Patnaik, a former member of Orissa Assembly passed away.
- 14-10-1970 ... The river Mahanadi has been recommended by the Inland Water Transport Committee for declaration as a national water-way.
- 15-10-1970 ... Shrimati Kirtimayee Devi, youngest daughter of Late Utkalmani Pandit Gopabandhu Das, died. All-India Adult Education Conference started at Bhubaneswar.
- 22-10-1970 ... The Supplementary H. S. C. Examination results of Orissa Board of Secondary Education announced.
- 24-10-1970 ... The State Level Committee on unemployment meets at Bhubaneswar.
- 26-10-1970 ... Chief Minister Shri R. N. Singh Deo, told the Assembly that the Venketadri Commission Report has been accepted by Government.
- The Union Government has selected Kalahandi and Phulbani districts for the implementation of Rural Works Programme during the Fourth-Plan period.
- 28-10-1970 ... Chief Minister Shri R. N. Singh Deo, inaugurated the 'Moon Rock' exhibition at Bhubaneswar.
- 30-10-1970 ... A conference of the District Collectors of Orissa began at Bhubaneswar.



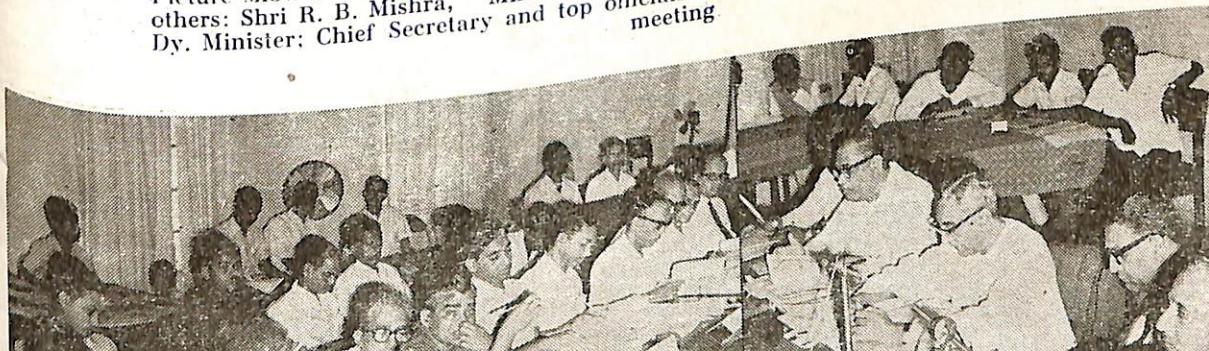
Dr. S. S. Ansari, Governor of Orissa delivering his inaugural speech at the 24th All India Adult Education Conference on October 15, 1970 at Bhubaneswar.

Education Minister, Shri Banamali Patnaik presided over this conference.

NEWS IN PICTURES

The fourth meeting of the State Level Committee on Employment was held at Bhubaneswar on October 24, 1970.

Picture shows: Chief Minister Shri R. N. Singh Deo addressing the Committee Among others: Shri R. B. Mishra, Minister for Labour & Employment; Shri Gobinda Munda, Dy. Minister; Chief Secretary and top officials of the State Government also attended the meeting.





Chief Minister Shri R. N. Singh Deo inaugurated a Lift Irrigation Project at Boulpur in Dhenkanal district on October 6, 1970.

Among others, Dr. K. L. Rao, Union Minister for Irrigation & Power and Shri R. Jagannath Rao, Union Minister for Social Welfare are also seen in the picture.

NEWS IN PICTURES

A conference of Members of Parliament from Orissa on the Rural Electrification Programme was held at Gadasila in Dhenkanal district on October 6, 1970.

Photo taken on the occasion shows Dr. K. L. Rao, Union Minister for Irrigation and Power delivering his address as Chief Guest. The Chief Minister, Shri R. N. Singh Deo presided over the conference which was inaugurated by the Deputy Chief Minister, Shri P. M. Pradhan.





Chief Minister Shri R. N. Singh Deo is seen addressing the 17th meeting of the Board of Primary Education, Orissa which was held at Bhubaneswar on 19th October, 1970.

NEWS IN PICTURES



Shri Harihar Patel, Minister for Industries inaugurated the Atomic Energy and Space Research Exhibition at S. C. B. Medical College on October 3, 1970.

Picture shows—The Minister Shri Patel accompanied by Shri P. K. Nagarajan, Head of the Publicity Division of the Department of Atomic Energy going round the exhibition.

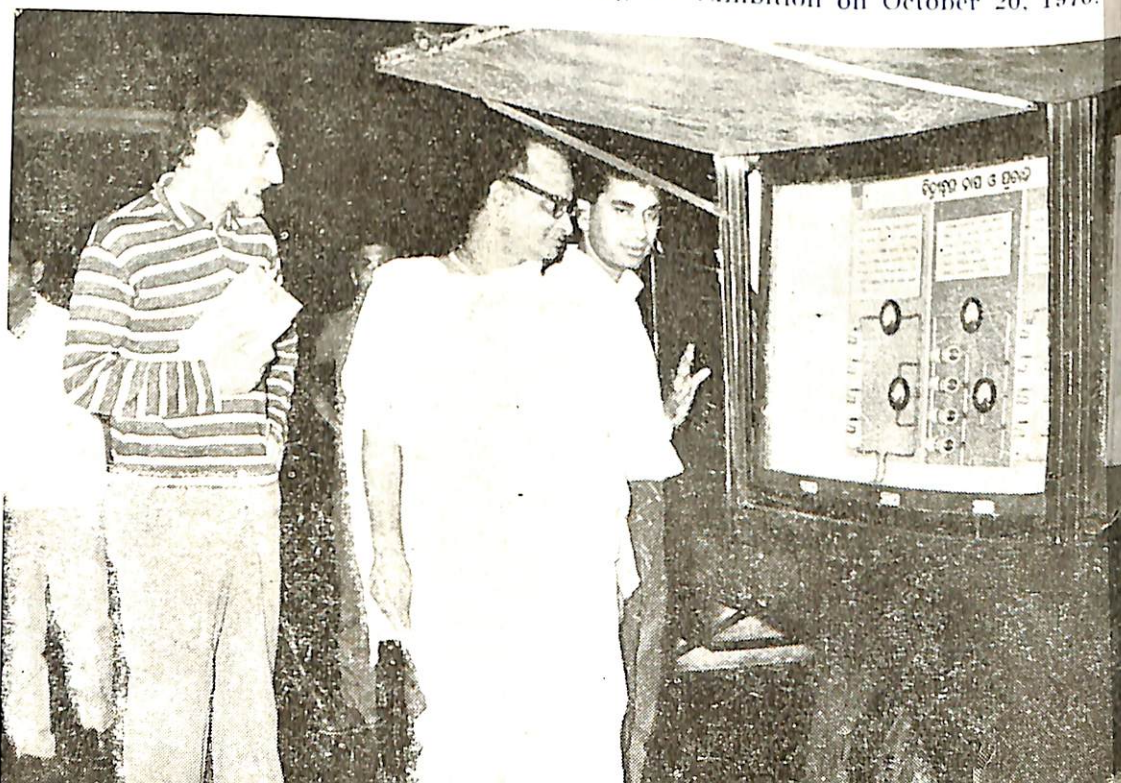


Moon rock on display at Bhubaneswar on October 28, 1970. Among others Chief Minister Shri R. N. Singh Deo and Dy. Chief Minister Shri P. M. Pradhan are seen in the picture

NEWS IN PICTURES

A Mobil Science Exhibition on familiar electricity organised by the Birla Industrial Technological Museum, Calcutta in collaboration with the Orissa State Museum on display in the premises of the Orissa State Museum, Bhubaneswar

Picture shows. Shri Nityananda Mohapatra, Minister for Supply and Cultural Affairs inspecting the exhibits after inaugurating the exhibition on October 20, 1970.





FOUR BACKWARD DISTRICTS QUALIFY FOR SPECIAL ASSISTANCE

Kalahandi and Mayurbhanj districts have been identified as industrially backward districts qualifying for out-right grant or subsidy from the Centre.

The districts of Bolangir, Mayurbhanj, Dhenkanal and Kalahandi have also been selected as backward districts to qualify for concessions to be offered by financial institutions for setting up industrial units with a fixed capital investment of not more than Rs. 50 lakhs.

The Planning Commission have informed the State Government about the selection of these districts, according to an official spokesman at the State Government headquarters. Kalahandi and Mayurbhanj districts will qualify for out-right grant or subsidy amounting to 10 per cent of the

fixed capital investment of new units having a fixed capital investment of not more than 50 lakhs of rupees each. Schemes and projects for new units involving fixed capital investment of more than 50 lakhs of rupees would also be considered for both these districts on the merits of each case.

The four districts of Bolangir, Mayurbhanj, Dhenkanal and Kalahandi will also be getting concessions from financial institutions for starting industries.

It may be recalled that the criteria for identification of the backward areas and for grant of fiscal and financial incentives for starting industries in backward areas were earlier fixed by two Working Groups of the Planning Commission. Orissa was

one among the 9 States indentified by the Working Group as industrially backward. The National Development Council later decided that two selected districts in each of the 9 States and one district in each of the other States and Union Territories should be given the out-right grant or subsidy.

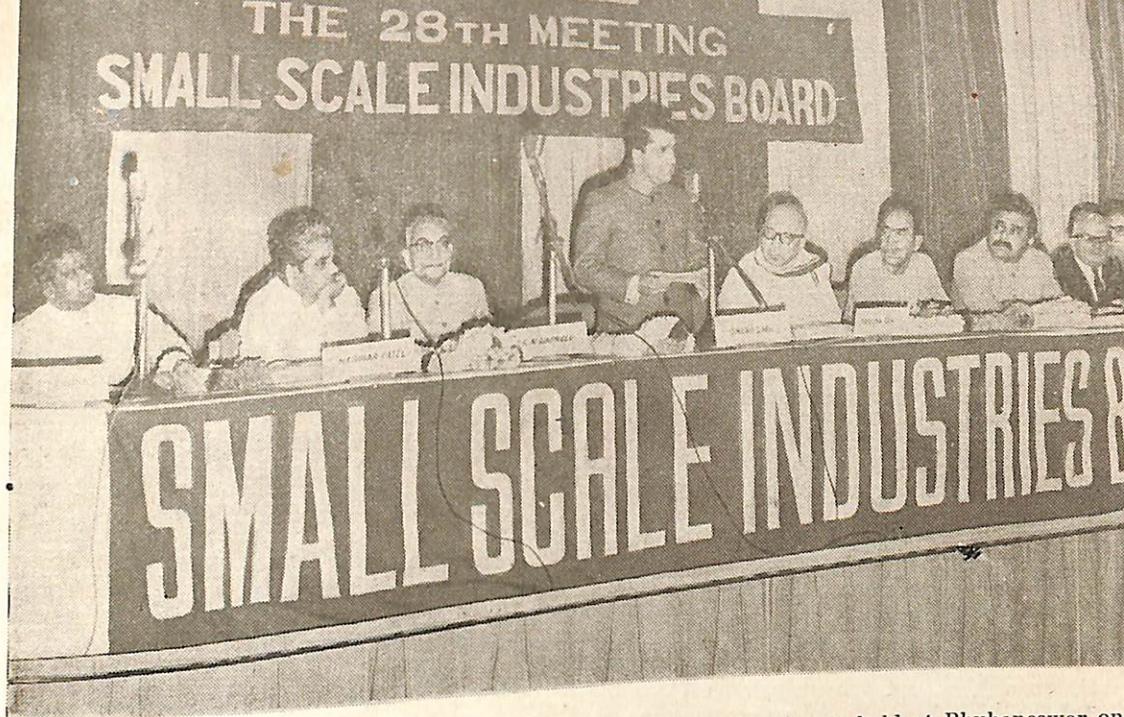
The Council had also decided that concessions by financial and credit institution should be available for financing industries in selected backward areas in all the States. The State Government had recommended the entire State to qualify for concessions from financial institutions.

REPAYMENT OF LOAN STIPEND

In a Press Note issued on the 25th May 1970 Government in the Education (L.S.F.) Department notified that all persons who had, having completed their studies, defaulted in the repayment of the loan stipend granted to them that if they repaid the principal in full within four months from the issue of the Press Note, 50 per cent of the total interest due from them would be remitted. It was also notified that where certificate cases have been filed by Government to recover the arrears on account of loan stipends, steps to withdraw the cases would be taken if the principal was repaid within the time-limit referred to above. The Press Note having issued on the 25th May 1970, the concessions announced therein were to cease with effect from the 25th September 1970. In pursuance of this Press Note repayment of arrears has improved and those who have reacted to it will naturally be given the concessions announced by Government. Representations have been received by Government that this decision of theirs came to the notice of many somewhat late and that, in consequence, they did not have time enough, to make arrangements for repayment of the principal and

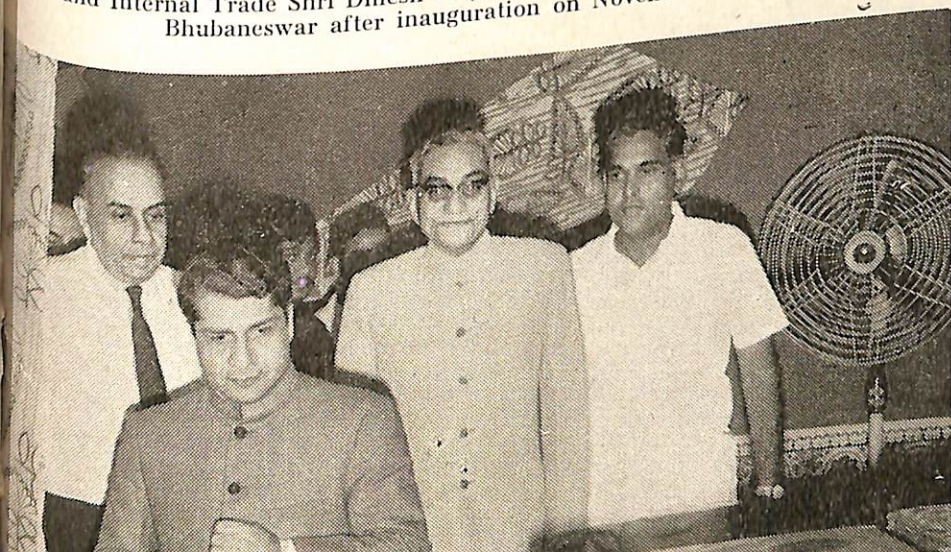
avail of the concessions. Since the intention of Government is to provide maximum facilities to the loanees to repay the amount outstanding against them and since they would prefer the settlement of accounts otherwise than through coercive processes under the law, they have decided to give a further opportunity to the loanees.

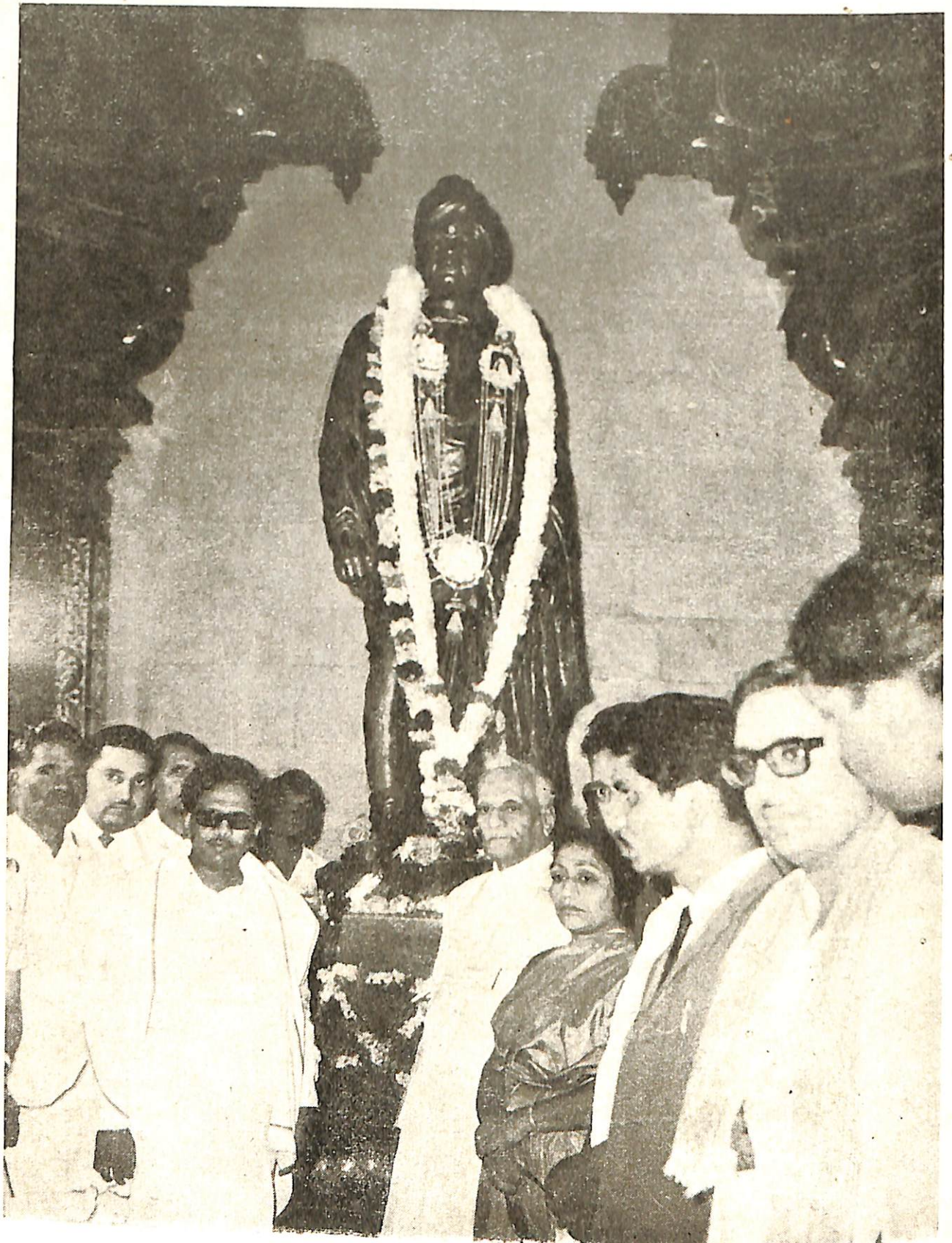
Government have accordingly been pleased to decide that the time-limit for repayment of the principal on account of outstanding loan stipends is extended till the 30th of November 1970. If the loanees repay the principal outstanding against them in full by this date, they shall be allowed a fifty per cent reduction in the interest due from them and steps will be taken not to proceed against them in Certificate Courts. If, however, the dues are not settled by this date, certificate cases will be pursued vigorously and the demand will include the full amount of interest. This is the last extension of time and it would be in the interest of the loanees themselves to avail of these concessions.



The 28th meeting of the Small Scale Industries Board was held at Bhubaneswar on November 5, 1970. Union Minister for Industrial Development and Internal Trade Shri Dinesh Singh is seen addressing the meeting which was inaugurated by the Chief Minister Shri R. N. Singh Deo

Shri R. N. Singh Deo, Chief Minister, Orissa & Union Minister for Industrial Development and Internal Trade Shri Dinesh Singh going round the 'Orissa-70' exhibition at Bhubaneswar after inauguration on November 5, 1970





The President, Shri V. V. Giri, inaugurated the Vivekananda rock memorial atop a rock in the sea near the shore, Kanyakumari.