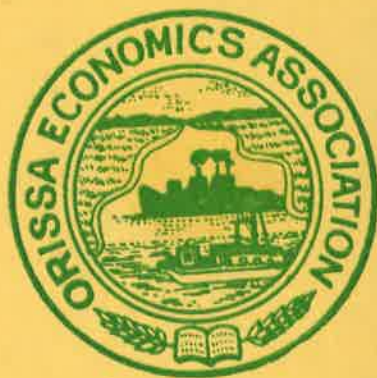


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ORISSA ECONOMICS
ASSOCIATION

RHUBANESWAR

ORISSA ECONOMIC JOURNAL

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Editor :
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Bhubaneswar.



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ASSOCIATION**
BHUBANESWAR

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**Orissa Economics Association
23rd Annual Conference**

Report of the Secretary

Mr. President Dr. Patnaik, our Guest of Honour
Dr. Bhalla, Chairman of the Reception Committee,
Dr. Pradhan, Local Secretary Dr G. C. Kar, fellow delegates,
distinguished guests, ladies & gentlemen !

It is my privilege as the Secretary of the Orissa Economics Association to extend a hearty welcome to you all to the 23rd Annual Conference of the Association.

We are fortunate enough to have in our midst an eminent economist of India, Dr. Bhalla, a member of the Planning Commission, an economist of international repute, as our guest in the 23rd Economics Conference.

The Orissa Economics Association was formed in 1968 with a view to imparting training to teachers in economics for improving the standard of teaching & organising Seminars on current economic issues. Even though, we have not been able to fulfil all our objectives due to various constraints, we are regularly organising the Annual Conference since its year of inception. I regret to inform you that for the first time, in its history of 22 years, we could not organise the 23rd conference in time due to reasons beyond our control.

The Orissa Economics Association has around 200 members, out of which 125 are Life Members. It publishes a Journal which contains the papers discussed in the Annual Conference. Finance has now been a serious constraint for the Association. In the mean time, the volume of the Journal has considerably increased along with the printing cost. We receive a maximum grant of Rs 4,000/- from the Director of Higher Education for publication of the Journal & another two to three thousand rupees from

The Orissa Economics Association is the only forum in Orissa, in which various economic problems of the Local, All India & International are discussed. Eminent economists, administrators, planners, business men participate in the discussions. It is this forum, this august gathering of talented and eminent academicians and experts, that has from time to time provided guidelines to the government on various economic problems. In view of the numerous economic problems the country is facing, in the interest of the State that the government should come forward to help this organisation, so that, we can be more useful to them and to the people at large.

A few personalities, Mr. S. K. Palit, Member, Board of Revenue, K. Bhattacharya, Chairman, OMC, Mr. S. R. Pal, Commissioner of Commercial Tax, Sri Ajit Mohapatra, Member, State Planning Board, Trilochan Pradhan, Vice-Chancellor, Utkal University, Mr. Sukumar J. K. Groups, Mr. S. P. Kashyap, Executive Director, Larson & Toubro, Chairman IPICOL, Deptt. of Science & Technology—have realised the need of such an organisation and have helped us generously. We owe them a heavy debt of gratitude.

This year we have selected three topics for discussion :—

1. Economic Development & Environment.
2. Sectoral Changes in India during Plan Period.
3. Industrial Sickness in Orissa.

The Bhubaneswar Mangaraj Lecture Series will be addressed by Baidyanath Misra, former Deputy Chairman, Planning Board. This will be the third lecture in the series, in honour of Bhubaneswar Mangaraj, a distinguished teacher of Banki.

I am extremely grateful to you sir, Dr. Trilochan Pradhan, Chairman of the Reception Committee, the Local Secretary G. C. Kar, the staff & students of the Analytical & Applied Economics Utkal University, for their tireless efforts in organising this conference.

I am extremely thankful to my erstwhile teachers Dr. Sadasiv Misra, Dr. Debendra Chandra Misra, Dr. Bidyadhar Misra, Dr. Baidyanath Misra, Dr. Khetramohan Patnaik and Dr. Ghanashyam Das for their participation in the conference, which is in itself a reward and a source of inspiration and encouragement for us.

I really owe a great deal to all the members of the Executive Body,

their help in all the activities of the Association. My special thanks are due to the former Secretary of the association Dr. Bidyadhar Naik who is still behind the scene and is providing continuous guidance in all the activities of the association. My thanks are due to the Chartered Accountant Sri Sourya Prakash Mohapatra, who took the pain to audit the accounts of the association without charging any fee.

I am grateful to the delegates, paper writers, invitees and to you all ladies and gentlemen for giving me a patient hearing.

Thanking you all.

R. K. Mishra

Secretary

Orissa Economics Association

Economic Growth of Orissa (1980-88)

Dr. K. M. Patnaik

I thank the members of the Orissa Economics Association for electing me as its President after the XXII Annual Conference held in the last week of February, 1989. Following the established convention, I would like to express my thoughts on a topic relating to our field. I have often thought aloud on the Economic Growth of Orissa (1980-88), as the published data for this period available from government sources have often been furnished with distorted interpretations.

The task of assessing the development of the economy of Orissa over the last nearly one decade is a complex and difficult one. The role of the economist here can be no more than holding up a mirror to the economy as it has developed over the past eight years. When the era of planning was inaugurated in 1951, its declared objective was to raise the standard of living of the teeming millions and open out to them opportunities for a richer and more varied life. It is this yardstick that has to be applied to evaluate the achievements in this field. It is appropriate in this context to clarify the meaning of three terms often used by all to assess the progress of a planned economy. In measuring the achievement of a planned economy, the term "economic growth", frequently used, implies an increase in the national (or State) income as well as per capita income which are measurable variables. This is entirely different from 'economic development' which refers to desired economic change. Economic development means a sustained increase in real per capita output or income, accompanied by reduction in existing inequalities and a higher economic standard of the masses. Economic progress is a much broader term, implying social transformation on desired lines. In view of the differences in their meanings, these three terms are not synonymous. Bhabatosh Datta writes : Growth means the increase in a measurable variable. Development means economic transformation for the better. Progress means forward social transformation.

When we consider our achievement over the last eight years of planned economic development in Orissa, the first question that crops up is: Has the State experienced economic growth? The answer is 'Yes'. Has the economy of Orissa grown at the desired, targeted or feasible rates? The answer is 'no'. This simplifies our task as our discourse will be confined to the first step. The need for discussing our achievement in the other two wider fields does not arise as the first hurdle has not yet been crossed.

Growth Rate of State Income

The Draft Seventh Plan of Orissa (page 2) mentions that the compound growth rate of our State income between 1970-71 to 1982-83 was 2.9 per cent, which was one of the lowest among the major states in the country. The corresponding growth rate in Andhra Pradesh was 2.8 per cent, Madhya Pradesh 2.8 per cent, Bihar 2.9 per cent and West Bengal 3.4 per cent. In comparison, during the same period growth rates in States like Haryana, Punjab and Maharashtra were much higher, i.e., 4.5 per cent, 4.6 per cent and 5.2 per cent respectively. When we compare the growth rate of our State income of 2.39 per cent with the growth rate of population in Orissa at 2.01 per cent per year during the same period, the picture becomes more dismal.

Meaningful comparisons of the relevant variables are possible only at constant prices. The Sixth Plan growth rate (compound) of our State income at constant prices (i.e., 1970-71 prices) was 2.17 only, compared to 9.2 per cent in the Third Plan period, 9.2 per cent during the three annual plans (1966-67 to 1968-69), 4.1 per cent in the Fourth Plan and 4.8 per cent during the Fifth Plan period including 1978-79. The sources of these figures are the publications of our Planning & Co-ordination Department. The Seventh Plan growth rate during 1980-85 which has been independently calculated on the basis of the relevant data published by the same department.

These data reveal that the compound growth rate of our State income at constant prices during the Sixth Plan period was much smaller compared to the earlier rates of growth for nearly two decades. In the light of these facts, one fails to understand the claim made in Orissa's Draft Seventh Plan document (page-5) that "the achievements during the Sixth Plan have been substantially higher than in the past, though less than what was targeted and more unstable than what was desirable." Such a statement about a higher growth rate has not been substantiated by the data furnished in the publications of the government.

It may be pointed out here that the compound growth rate of State income for the first three years of the Seventh Plan comes 3.25 per cent at constant prices. If the compound growth rate of State income is calculated for the period under review, i.e., 1980-88, the figure comes to 2.4 per cent at constant prices. This means that the compound rate of growth of the State income during 1980-88 is the same as that for 1970-71 to 1982-83 which was 2.39 per cent. The inference obviously is that the compound rate of growth of the State income has remained unchanged from 1970 to 1988, which is a good example of Prof. Raj Krishna's steady rate of growth.

Between 1970-71 to 1984-85, a gap of nearly fifteen years, the per capita income at constant prices was highest in Orissa in 1983-84 on account of good harvests. It was Rs. 549.5 in 1983-84. In all the other years of the Sixth Plan period, the per capita income was less than the corresponding figures in 1977-78 and 1978-79. Figures of per capita income are available only for the first three years of the Seventh Plan. The per capita income in 1985-86 at Rs. 551 (at 1970-71 prices) was slightly higher than the corresponding figure in 1983-84. The same figures for the second and third year of the Seventh Plan are lower than that reached in 1983-84. The highest per capita income of Rs. 551 reached in 1985-86 was about one-third of the per capita income of Punjab during that year.

It is observed that the fluctuations in the State income and per capita income in Orissa are directly linked to the vagaries of the monsoons. This economic situation of Orissa in the last decade of the twentieth century is in no way different from that found in the 19th century. There is no easy, immediate and short-run solution for this long-festering problem which has an over-powering effect on the economy of the State. It is easy to say that expansion of irrigation facilities will put an end to this problem. But the realisation of the same in an acceptable time period would be nothing short of a miracle, considering its financial implications. The net area sown in Orissa has gone up to 62.5 lakh hectares. Irrigation potential has increased to nearly 19 lakh hectares. Therefore, provision of additional irrigation facilities for nearly 43.5 lakh hectares of cultivated land at the current cost of Rs. 45,000 per hectare would necessitate an investment of about Rs. 20,000 crores, assuming the price level to remain unchanged. On these assumptions, it will take 32 years in five-year plans to ensure 100 per cent irrigation facilities in the State, provided that we spend Rs. 600 crores in each of these five-year plans for increasing irrigation potential and the general price level remains the same throughout. These far-fetched assumptions only underscore the

ual impossibility of realising the objective in the near future. It is on this stand-point that one should consider the validity of the suggestion made that "the future programme should be irrigated agriculture and not dry-land agriculture"¹. In the light of the arguments already advanced here, such a prescription has to be taken with a grain of

An alternative solution of the problem is likely to be obtained if serious research is encouraged in dry-farming techniques attuned to the needs of the small farmers. This field of research, already showing some progress in the country, is the imperative need of the farmers not only in Orissa but also in the country as a whole. The urgent need of the hour is to see that agricultural productivity is saved from recurrent droughts, which is the problem of the farmers engaged in 70 per cent of the irrigated lands in India as well as in Orissa. But, as a writer has pointed out, "neglect of dry-farming or small-farmer oriented research has stemmed from scientists' exclusive preference of high pay-offs from research in the short-run in respect of high potential crops and areas well endowed with all factor-inputs".² Perceptions and needs of the farmers and not the convenience of the scientists should get reflected in research in the field of agriculture in India at the present time. It is needless to say that scientific research efforts in our country at present are far removed from those that could be expected to yield information and knowledge highly valuable for gains in productivity in the foreseeable future. It is appropriate here to cite the case of Japan in this matter. In spite of the fact that Japan, which does not have institutions of the stature of even the Max Planck Institute of Fundamental Research, the Institute of Sciences, the German Council of Agricultural Research (started in 1929), has been able to maintain its industrial supremacy and high agricultural productivity without fundamental research. This has been possible because Japan concentrated on shopping around the world for emerging technologies, rather than doing little to develop its own research institutions, in order to reach the zenith of economic prosperity. Therefore, from the economic point of view, could it not have been better for us to worry about the smooth and efficient transfer of technologies emerging elsewhere into our country for maintaining efficient productive systems? Again, was it not the duty of the Indian Council of Agricultural Research, which is already in existence

Dr. B. Misra, "*Strategy For Agricultural Development in Orissa*,"
Papers presented at the Seminar on Eighth Plan of Orissa, Planning
& Co-ordination Dept., p. 21.

Abhijit Bhattacharjee, "*Agricultural Research Needs Re-orientation*."

sixty years by now, to concentrate on research primarily aimed at meeting the needs of our tiny farmers in the absence of desirable changes in the agrarian structure and irrigation facilities ?

Encouraging research and improved practices in dryland farming and thereby protecting 70 per cent of our farmers from loss of their incomes due to the vagaries of the monsoons do not imply crying a halt to the process of expansion of irrigation facilities. What is emphasised here is the more urgent need of the largest majority of farmers. And it is high time that our plans should reflect the needs and aspirations of the largest section of our people. This is the only way to make planning a more meaningful process. The suggestion made aims at maintaining a persistent pace in the growth of our agriculture, State and per capita, incomes. With more than 55 per cent of the plan outlays in Orissa being spent on irrigation and power during the eighties, we have achieved a compound growth rate in foodgrains production of less than one per cent only during the period 1980-88. As a result, Orissa continues to remain as "the epitome of poverty in India." If dry-land farming techniques and practices do not develop quickly, wide fluctuations in income would continue to occur at frequent intervals, forcing the largest majority of the farmers in the State into the sea of hot water, thereby discrediting process of planning. Furthermore, inequalities will widen, making poverty eradication a far-off event. The well-known strong inverse correlation between the time series of poverty estimates and foodgrains output should not be forgotten. Therefore, S. L. Ghosal rightly points out : "The country as a whole may achieve self-sufficiency in foodgrains.....but the majority of the population may still suffer from shortage because of the lack of purchasing power, especially where agriculture is dependent on the monsoon. The development of dry-land agriculture, therefore, is inescapable for national food security and poverty alleviation. The thrust of agricultural development in the Eighth Plan has to be on dryland farming to bring down the income disparities between those farmers who have irrigation facilities and those (who) do not."

Sectoral Changes in State Income

The changes brought about by planned development in the three economic sectors in Orissa can be seen in Table-1. The data furnished here indicate changes in the relative shares of the primary, secondary and tertiary sectors at constant prices over a period of sixteen years, i.e., from 1970-71 to 1986-87. Table-1 shows a decline in the relative shares of the commodity producing sectors like agriculture and industry in the State

India is sustained to the extent of nearly 40 per cent by the increase in the imputed incomes from the tertiary sector. In Orissa its extent in 1986-87 was 27 per cent, even though the state per capita income at constant prices was much lower than the national per capita income.

The data about per capita income in Table-1 can enable us to find out the average annual rate of growth of per capita income during the period of sixteen years mentioned therein. The increase in the per capita income between 1970-71 and 1986-87 comes to 12 per cent, i.e., an average annual rate of only about 0.7 per cent. If the calculation is made between 1980-81 to 1987-88 the average annual rate of increase of per capita income in Orissa would be 0.5 per cent; between 1970-71 and 1977-78 the corresponding figure is 0.6 per cent per annum.

It may be mentioned here that between 1970-71 to 1984-85, the per capita net national income at constant prices increased by an average annual rate of about 1.6 per cent.

Table-1
Sectoral Changes in State Income (1970-71 to 1986-87)
(Rs. crores)

Sectors	Percentage of workers	State income in 1970-71	State income in 1986-87	Percentage of absolute change in income
(1)	(2)	(3)	(4)	(5)
1. Primary Sector (Agriculture, Animal Husbandry, Forestry, Fishery, Mining etc.)	79	698.12 (67.3)	981.89 (62.7)	41
2. Secondary Sector (Industry Construction, Electricity etc.)	7	107.59 (10.4)	160.92 (10.3)	49.5
3. Tertiary Sector (Banking, Insurance, Transport, Trade, Administrative Services, other Services, etc.)	14	231.72 (22.3)	423.77 (27.0)	83.0
Total :	100	1037.43 (100.00)	1566.58 (100.00)	
Per capita income (Rs.)		478.14	537.28	

(Figures in brackets indicate percentage)

(State and per capita incomes are shown at 1970-71 prices)

Source : Data taken from *Economic Survey, 1988-89*, Planning & Co-ordination Dept., Government of Orissa, p. 80 (Col. 5 calculated).

The overall increase in state income or per capita income does give us picture of the actual structure of its distribution. Table-1 can give a rough picture of the relative and absolute benefits derived by three sectors of the economy, during the period mentioned therein, in the process of planned economic development.

Column-2 of Table-1 shows that 79 per cent of the workers in the state depend on the primary sector for their livelihood, 7 per cent on the secondary sector and 14 per cent on the services sector. Between 1971 and 1986-87, the relative share of the primary sector in the state income declined by 4.6 per cent and the decrease in the share of the secondary sector was insignificant. But the relative share of the tertiary sector went up by 4.9 per cent. Thus as regards relative shares, the tertiary sector has been the only beneficiary.

We can obtain from Table-1 (Col-5) a rough picture of the percentage gain of each sector in the absolute sense. As indicated therein, the absolute gain of the tertiary sector is 83 per cent, which is the highest. The gain of the secondary sector is nearly 50 per cent and that of the primary sector only 41 per cent. The dominant sector affording livelihood to 79 per cent of the work-force has got the lowest benefit. This has been the fate of our agricultural sector over the last forty years of planning. The percentage of marginal and small farmers in the agricultural sector in Orissa is 74 with only 33 per cent of the cultivated area in their possession. The substantial farmers with 5 acres and above, constituting only 26 per cent of the total, have command over 62 per cent of the cultivated lands. Whatever little gain that might have trickled down into the agricultural sector must have been largely appropriated by the dominant minority in the rural areas, as they get a lion's share of facilities for agricultural development provided by the government.

Industrial Development

The industrial scenario of the State on the eve of the Sixth Plan is very bleak. Orissa's share in the industrial production of the country in 1978-79 was 1.6 per cent compared to 16.3 per cent of Maharashtra, 11.3 per cent of Andhra Pradesh, 11.3 per cent of Gujarat, 10.5 per cent of Tamil Nadu, 6.7 per cent of West Bengal and 3.6 per cent of Madhya Pradesh. The gross per capita output of industry in Orissa in 1978-79 was Rs. 323 as against Rs. 679 for the country as a whole. The per capita value added by manufacture in the same year stood at Rs. 73 in Orissa as against Rs. 146 for the entire country. In order to bring about a visible change in

determined effort is claimed to have been made in Orissa in the Sixth Plan period to push up the employment potential of this sector to ten persons per 1000 population. The number of industries—large, medium, small and artisan-based—has increased. The Economic Survey, 1988-89 mentions that there are at present 184 large and medium industries, 32,922 small industries and 771,686 artisan-based units in Orissa. The additional employment opportunities created during 1980-88 works out to 41,466 in large and medium industries and 2.45 lakh in the small-scale industries. The total of these two figures comes to 286,446.

We may now analyse the impact of this process of industrialisation on the State. We may start with the employment opportunities created which was a "major objective of the industrial policy" of the State. The Sixth Plan of Orissa started with a backlog of unemployment of 22.6 lakhs and during 1980-85 the addition to the labour force was 9.5 lakhs. This makes a total of 32.1 lakhs. To this should be added the likely addition to the labour force during the first three years of the Seventh Plan, which would be about six lakhs. Therefore, over the period 1980-88, the number of persons seeking employment opportunities was roughly 38.1 lakh and the number absorbed by the large, medium and small industries was 286,466. This comes to at best 9 per cent over a period of eight years. It follows, therefore, that only 9 per cent of the unemployed manpower could be afforded employment in these three categories of industries between 1980-88. It is difficult to consider this as a remarkable achievement.

The employment opportunities claimed to have been created in the artisan based sector may be analysed. Though employment is an important objective, there is danger in laying exclusive emphasis on an increase in employment indiscriminately in this sector. It may result in the creation of a host of low productivity jobs in which individuals have no opportunity of economic advancement. T. S. Papola writes, "after all, employment is important because it provides an income to those who have no other source of income; and employment which does not offer a minimum level of income may not be worth creating."³ No evidence has been given in government publications to prove that in Orissa the employment created for 12.5 lakh persons in these artisan-based industries during 1980-88 conforms to the criterion laid down by T. S. Papola. Nor has there been an estimate of the extent of sickness in this sector. The industries established in the semi-urban and rural areas should

aged not merely from the point of view of providing persons with kind of engagement, but also from the stand-point of their activity, competitive strength, self-sustaining ability and spread- or the Keynesian multiplier effect.

The impact of these trends on the development of industries in a was very unfavourable, leading to a situation more dismal at the of the Sixth Plan than was the case in 1978-79. The Annual Survey industries, 1984-85 reveals that the number of persons employed per population in the industrial sector of the State came down to 3.7 at nd of the Sixth Plan from the level of 4.5 attained in 1978-79. In of all the funfare about creation of additional employment avenues, act remains that one of the important objectives of the Sixth Plan e pushing up industrial employment to 10 persons per 1000 population not realised. And the most distressing fact is that there was gression in this regard.

One does not also find any redeeming feature in the growth industrial output in the State during the period under review. a's share in the industrial production of the country was 1.6 per cent 78-79; it came down to 1.5 per cent in 1985. The value added by ifacture in the State was Rs. 242.9 crores in 1979-80, which decreased . 232.58 in 1984-85 even though fixed capital employed was more than times larger in amount. The value added per capita went up from 3 in 1979-80 to Rs. 82.7 in 1984-85 at current prices, but at constant s it would be much lower. The contribution of the secondary sector e State income in the eighties in Orissa has been lower on an average ared to that in the seventies. The secondary sector includes 'industry' g with other items like electricity, construction, hotel, gas, water- ly and the like. If the manufacturing sector is taken out of this p and its contribution to State income alone is considered, we get the declining trend in the eighties compared to the seventies. The ufacturing sector of Orissa in the seventies contributed about 8 per to the State income; it decreased, on an average, to 6.9 per cent annum during the sixth plan period and further declined to 5.8 per in 1986-87 (at constant prices). The annual compound growth rate at tant prices of the State's manufacturing sector between 1970-71 to -87 was only 0.6 per cent which was the lowest among the major 17 es in the country. These figures are available from the Central istical Organisation.

These hard facts relating to the industrial development in Orissa counter to the high-pitched commendation of the Planning and

Co-ordination Department about the growth of this sector during the period under review. In the Seventh Plan (Draft) of Orissa, the achievement of the industrial sector has been acclaimed as "undoubtedly splendid if not phenomenal." The same document mentions, "the industrial policy of the State Government in the Sixth Plan has succeeded in building up the tempo of industrialisation which would be continued in the Seventh Plan." Facts do not bear testimony to these official appraisals. The data furnished by government reveal that there has been a downward movement of all the relevant indicators of industrial progress except the number of industrial units created. And it is the latter that has been taken probably as the touchstone of industrial growth in Orissa at the government level, contrary to all expectations. Multiplication of industries is not likely to lead to healthy growth of the same if, as businessmen complain, the industries are "already suffering from limitations of infrastructure and market." They have categorically said that "the acute power shortage should get priority attention." As Prof. H. G. Aubrey has said, "it is therefore desirable (in such a situation) to concentrate on such specifics in preference to the elusive concept of climate." Instead of following such advice, the industrial policy of the State rests on only giving subsidies and concessions for attracting entrepreneurs to start industrial ventures. Monetary incentives cannot make up for poverty of infrastructure and market and shortage of power. So long as the level of income in the rural sector remains depressed, there is very small possibility of healthy industrial growth in a State where 88 per cent live in villages and agriculture contributes 60 per cent of the State domestic product. This is what Dr. A. M. Khusro implies when he writes, "intersectoral dependence is an established fact and one sector cannot grow until the other grows." 4

Conclusion

Economic growth in Orissa during 1980-88 is characterised by disturbing features in important respects. The compound growth rate of the State income during this period has been the same as in the decade preceding it. The compound growth rate of foodgrains production and that of the manufacturing sector have a shocking similarity, as both are less than one per cent. The compound growth rate of the State income during the sixth plan period was less than the corresponding figure for the previous two decades. All these crippling trends have produced an adverse

growth of unemployment in the eighties in Orissa is more than double the corresponding rate in the seventies. Increase in educated unemployment in 1986-87 compared to the position in 1980 has been of the order of percent. The downward trend of all these relevant economic indicators has pushed up the percentage of people below the poverty line instead of decreasing it as claimed by government. These alarming trends warrant a serious rethinking on the process of planning in Orissa. One is forced by these depressing indicators to believe that our cherished goals have turned out to be remote dreams. The apprehension of these trends continuing in the future appears real on account of the fact that all our plans are only different versions of the same thing. This should remind us of Sri Arthur Lewis' remark that "the secret of successful planning lies in sensible politics and good public administration." The failure of our planned economy had also prophesied : "Planning by itself has little meaning and need not necessarily lead to good results. Everything depends on the controlling authority as well as of course on the government behind it."⁶

Economic Development and Environment

(Mangaraj Lecture)

Prof. Baidyanath Misra

Of the many objectives of economic development, creation of additional employment opportunities and abolition of poverty have assumed greater importance in recent years. Poverty and un-employment have created a great deal of social tension and therefore planners have naturally thought it necessary to direct their attention to reorient the economy so as to reduce these two maladies as far as possible and as soon as possible. In addition, some attention is also devoted to provide the social amenities like drinking water, public health, literacy and such other basic necessities of life alongwith increased rate of growth of national income. These are primary objectives of planning and necessarily find emphasis in the context of economic development.

Though during the last four decades of planning a lot of changes have taken place in the society, poverty and un-employment continue to plague the economy. According to the Planning Commission the extent of poverty comes to about 30% of the total population. But the Planning Commission's definition of poverty is too narrow to measure poverty in the true sense of the term. In case of Planning Commission, the poverty is determined in terms of calorific value amounting to per-capita daily consumption of 2400 calories in Rural and 2100 calories in Urban areas. But if we take balanced mix of calories from different sources (including even clothing, housing etc.) instead of aggregate calorific value, the level of poverty will be much higher.¹ According to the Indian Council of Medical Research, the consumption standard of an average Indian is very low in relation to nutritional requirements. In particular the protein intake is about one third of requirement.² As such, eradication of poverty has to assume first priority in the development of the economy.

When we come to unemployment we are in a blind alley. However, we have to demand a more realistic definition of unemployment.

Although these figures are far from accurate. According to the Planning Commission at the beginning of the year 1990-91, about 16 million persons, 10 million in Rural areas and 6 million in Urban areas, are estimated to be un-employed (on weekly status basis). Of these 12 million males and 4 million are females. Another 12 million are estimated to be under-employed. Thus the back-log of un-employment could be estimated to be around 28 million. Labour force is projected to grow by 37 million during 1990-95 and another 41 million during 1995-2000. If employment could increase at a rate of over 4% per annum between 1990-95 and over 3% per annum between 1995-2000, we may reach the goal of full employment by 2000. Thus, the total number of persons requiring employment would be 65 million during 1990-95 and 106 million for the decade 1990-2000.³

But the past trends do not justify such a high rate of growth in employment. During the seventies and eighties, employment has increased at an average rate of two per cent per annum, but only around 1.55% during the recent years. A one per cent growth in G. D. P. was accompanied by 0.6 per cent growth in employment during 1972-73/74-75, 1975-76/77-78, this figure continued to be reasonably high at 0.55 during the next five years 1977-78/1983; but steeply declined to 0.38 during 1983/84-85/86-87. If this trend continues or even this ratio is maintained at the level observed in the recent past, the rate of G. D. P. growth required to achieve full employment in the proximate future would have to be unrealistically high, 10.5% per annum to achieve the goal by 1995 and 8 per cent if it is set for 2000 A. D. All this implies that the pattern of growth would need a significant restructuring with a view to raising its employment content.⁴

Further though economic growth has substantially increased the production of steel, cement, power, consumer durables etc., economic development has succeeded in driving a large wedge between different segments of Indian Society. What is most distressing is that the gap between the urban and rural areas has increased in recent years. Early in the 1950s, when the rural population was more than 80% of the total population of the country, the share of the rural sector was less than 10% of the National Income. Consequently per capita income in the rural sector was a little over one-half of its level in the urban sector. By the middle of the 1980s, a rough estimate suggests that the percentage share of the rural sector was perhaps only a little over one-half of the national income. (Due to the fact that agriculture has not grown much faster than

Since the share of the rural sector has remained close to four-fifths of the total population, per capita income in this sector appears to have declined less than one-third of the level in the urban sector. The per-capita income in the rural sector has risen by less than 30% over this entire period, while per capita income in the urban sector has risen by more than 135 per cent.⁵

The disparity between various expenditure classes—ranging from per capita monthly expenditure of Rs. 30/- at the lowest end of the scale to Rs. 300/- at the highest—is phenomenal. As far as expenditure on goods is concerned, the difference is 4-5 times, for food as a whole it is 10 times, in the case of non-food items, it is 40 times. The disparity in expenditure on footwear is staggering, 392 times.⁶ Consistent with these glaring disparities, we find that the share of the bottom 10% of families has plummeted from 2.5 percent in 1961 to 0.1% in 1981.⁷ This decline may be attributed largely to the phenomenal rise in prices. But whatever the reason might be, the poor have suffered more than the rich.

Apart from these economic disparities, the deficiency in social amenities is also staggering. According to the 1981 Census 33% of our households do not have any literate member, 62% do not have access to safe drinking water and 74% have no electricity. The child mortality rate is 152 per thousand live births (1987). All this implies that economic growth has not been able to bring about any improvement in the level of living nor any significant social transformation.

In the context of such colossal poverty, staggering unemployment and glaring disparity both in economic and social services among different sections of the community, should we attach any importance to the improvement of environment? Many economists assert that poverty and environment cannot go together. Our first priority is economic development. Maintenance of Ecology is a luxury for a poor country. On the other hand, environmentalists point out that sound ecology is good economics and what they mean is that unless environment is protected, not only will there be destruction and/or mis-utilisation of scarce natural resources but also deterioration in health and well being of the people of a country. The danger is more so in a developing country where the awareness regarding the protection of environment is almost absent. The linkage between environment and economic growth can be seen from the

Mismanagement of Agriculture :

The most important sector in India in providing food, fodder and other livelihoods is agriculture including fisheries, forest and animal husbandry. Agriculture in the broad sense is dependent on environment for its sustenance. Because of mismanagement of Agriculture there has been a great deal of waste of natural resources.

Between 100 million to 150 million hectares of India's land area is rapidly turning barren and 1 million hectares of crop-lands and grazing lands are badly affected. We have failed to pay sufficient attention for the maintenance of land as a result of which the bulk of our non-renewable and limited land resources suffers serious, and in many cases, irretrievable depletion and degradation. The per capita availability of agricultural land which stood at 0.48 hectare in 1951 will be reduced to 0.14 hectare in 2000 A. D.. Such depletion and degradation will inflict great damage on our soil resources.

Of the 67 mh. which are officially notified as 'Forest lands', not more than around 28 mh. possess good natural forests (with a crown cover of at least 40%). Such forests are being lost at the rate of at least 1.5 mh. per annum. Since independence about 4.3 mh. are lost on account of irrigation projects, industries and power projects only. Other reasons which cause the loss of forests are extensive felling of trees for fuel wood, economic requirements which necessitate exploitation of the forests for profit, shifting cultivation and other unscientific and inappropriate agricultural/horticultural practices resulting from growing food requirements of the hungry millions. Indiscriminate mining activity has also destroyed several million hectares of good crop and forest lands. Besides, the reckless discharge of industrial wastes and atmospheric pollution are also damaging extensive forest areas.

Forest not only provide us with our basic needs of life like food and shelter, but also influence the environment. They supply clean air by absorbing carbon di-oxide and other harmful gases which are by-products of industrialisation. These forests work like speed breakers to the surface run off and absorb the water to be released later on in the form of streams. It is estimated that the country's total precipitation in the normal monsoon conditions works out to 400 mh. metres. Out of this only 150 mh.

ground water which is used for irrigation and drinking purposes all through out the year. The loss on account of surface run off comes to about 180 mh. metres and therefore it is that forest cover in a water-shed which is the cheapest and best method of water storage in space in a country where the whole economy revolves around the monsoon.⁹ In addition because of deforestation, ground water table in many places is going down leaving the poor person's dugwell high and dry. In many other places the water table is going up creating serious problems of water logging.

- ii) Although very large investments have been made on big irrigation projects, their productivity continues to be extremely low. Vohra points out several constraints in big dams.¹⁰ Firstly there is a big gap between the gross irrigation potential and the potential which is actually utilised. This gap comes to almost 25% of the potential created. It may be mentioned here, the cost of creation of irrigation potential which was around Rs. 1200 per gross hectare in the first plan has come to about Rs. 40,000 at present. What a huge wastage of resources due to the gap in the potential created and the actual utilised ! Secondly, even the productivity of the utilised potential is no more than around one-third of what can be achieved through improved arrangements, for the distribution and application of water through field channels, control devices, land levelling, drainage etc. Thirdly, due to lack of drainage, the menace of water-logging (and consequent salinisation of the soil) has already affected at least 13 mh. of good agricultural lands and threatens many more. Fourthly, due to extensive denudation and soil erosion, the siltation of reservoirs which represent a highly valuable of irreplaceable potential for irrigation, power and flood control is taking place at much higher rates than was envisaged. It is understood that on an average, every hectare loses 20 tonnes of top soil a year. Fifthly, the flood-prone area has doubled over the last ten years from 20 million to 40 million hectares. And millions of people have been displaced and uprooted.

One example can show how big dams can cause disaster. The Sardar Sarovar Project (S. S. P) alongwith Narmada Sagar dam is estimated to irrigate 1.8 million hectares thereby raising agricultural output. It will also generate about 300 M. W. of power. But the cost in terms of land, forests and human misery is enormous. The S. S. P. will submerge 40,000 hectares of land (including forests) and submerge the habitants of 245 villages with a population of some 90,000 people.

t of these (about 70%) are tribals. As one environmentalist it, there is a powerful coalition of rich farmers, industrialists and ractors wanting the dam more than anything else, to enhance r own coffers. The estimates of benefit made by irrigation engineers a to be on the higher side. It is claimed that the dam would solve perennial drinking water needs of drought prone areas of Gujarat, ading Kutch and Saurashtra. But it is found that only 11% of the er of S. S. P. would actually go to desert or drought-prone areas, too after 20 years. Seventytwo per cent of the designated command ctually in the rich Central Plains which are well endowed with er. Again, the World Bank has now discovered that the area ally fit for irrigation has been overestimated by 25%. If the benefit ratio is taken into account, the project is economically unviable.

This shows that canal irrigation instead of becoming a blessing turned into a curse and allows our renewable resources of water to age our non-renewable resources of land. In fact irrigation of power ects have given birth to powerful engineering interests (which ude equipment manufacturers and contractors) backed by decision ers who have more than the public interest in view while conceiving he expenditure intensive projects.¹¹ As Simon Kuznets has pointed the development sequence goes from science to technology to engi- ring.

The Green Revolution which has increased the productivity of land to a great extent in Punjab, Haryana and Western U. P. pulls out more plant nutrients from the soil than its put back. In these parts of the country deficiencies of plant nutrients in the soil is the highest. Many farmers have already started applying zinc.

In addition, because of application of pesticides in high yielding eties the air, water and soil are polluted which threaten the elihood of rural people. These agricultural chemicals leave behind idues in food and produce ill effects when the concentration exceeds fe tolerable level. The International Development Research Centre (tawa) has claimed that every year about 10,000 people die and ther 4,00,000 suffer from various effects of pesticides poisoning in e developing countries. And India accounts about one-third of pesti- e poisoning in the Third World. Even though the coverage of crops pesticides in India is barely 25% of total cultivated land, the idue problem has become quite alarming. According to a report of

WHO of the U. N. the level of chlorinated pesticides intake is higher among Indians than among people of other countries.

A good amount of pesticides residue has been reported in various food commodities like wheat, rice, groundnut, fish, meat, butter, ghee and cheese. An average Indian's daily diet contains about 0.27 mg. of D. D. T. and the level of accumulated D. D. T. in the body tissue of an average Indian is the highest in the world. Several cases of pesticide poisoning have been reported in different parts of India not only among human beings, but also among different types of animals. These have caused deaths for some and fatal diseases for many. Two examples will be sufficient to illustrate the point. In a small village of Basti district of Uttar Pradesh (Rajpura), 150 people of a wedding party died recently by taking some delicacies made of wheat contaminated by pesticides. Cases of blindness, cancer, deformities and diseases of liver and nervous system have been noticed in cotton growing districts of Maharashtra & Andhra Pradesh due to excessive use of pesticides. These two examples are sufficient to show the danger of unchecked use of pesticides in Indian agriculture.

All this shows that modern agriculture heavily dependent on fossil fuels, borrowed capital and chemical fertilisers and pesticides decrease soil productivity, deteriorates environmental quality, reduces profitability and threatens human and animal wealth. That is why some of the economists in the U. S. A have argued in favour of sustainable agriculture which emphasises (a) rotation of crops (b) application of crop residues, manures & other organic materials to the soil, and (c) integrated pest management which may involve disease resistant crop varieties & biological controls etc. Though organic farms have lower crop yield than the conventional farms, their operating costs were lower by about the same cash equivalent. As a result, the net incomes from crop production on the two types of farms were about equal every year. Further organic farms have two more advantages. First, it provides healthy soil which is a hospitable world for growth. Air circulates through it freely and it retains moisture long after a rain. Second, the cultivation of legumes fixes nitrogen in the soil and thus increases soil productivity. **It follows from this that biology and ecology rather than chemistry & technology, should govern agriculture so as to prevent ecological degradation.**

(2) Industrial Pollution:

In big industrial cities, pollution has struck like a plague, causing large-scale destruction of health, wealth and life. Fresh air is almost non-

ent. All water resources have turned poisonous. Smoke from factories, vehicles and dust from roads threaten not only human life but also animal life. In the interest of health, the quantum of dust, smoke, sulphur dioxide, carbon-monoxide, oxides of nitrogen, sulphur dioxide, in the air must not cross certain specified limits. But modern industrialisation has caused these pollutants to cross their respective threshold limits. For example on an average 15 to 20 tonnes of dusts get deposited from ambient air every month in Jharia per square kilometer causing respiratory diseases. In fact, the threshold limit for such dusts is only 10 tonnes in the scale. While the suspended dust concentration in air should not exceed 75 microgram per cubic metre in India, it is observed to be as high as 600 to 700. In Bombay's industrial suburbs of Lalbaug and Clembur, the air people breathe is so permeated with industrial fumes that the local incidence of respiratory disease is more than that of Bombay as a whole.

Seventy per cent of all the available water in India is polluted. Even the high altitude lakes are dying because of pollution. The water of the sacred Ganga is so polluted that it is not even safe for bathing. Over 100 large & medium industries are located in the banks of Ganga. Effluents and waste from these industries run right into the sacred river. Apart from this, thousands of drains and sewerages carrying human and animal wastes run into the river. It is not only Ganga, most of the rivers & lakes in India are now polluted. It has been reported recently that water has turned red in wells as deep as 20 to 30 m in around Kutch, Gujarat where lakhs of sarees are dyed each day. High concentration of fluoride in water in some locations of Gujarat is seriously affecting the health of inhabitants.

The villages surrounding the two industrial estates near Bhopal and Meerut relive the Bhopal nightmares all through the year. The stench emanating from the giant Voltas pesticides unit is so nauseating that the people in the neighbourhood find it impossible to live there. The water of the two fresh water rivulets that exist nearby is so black that it could as well be used to tan leather. Now Polluted water is found at a depth of 100 metres on both sides. A family health survey and medical check up carried out by a team of professionals show frightening results (The total villages surveyed-4, Total population 2082, Registered 1682, Examined 942. Average morbidity : 88%. This was reflected highest in : Respiratory diseases 196, Digestive disorders 115, skin diseases 111). No person in the 14 villages in the neighbourhood of the rivulets has been able to

bird flies over there. Many other industrially induced diseases like anichites, eye burning, gastro-intestinal disorders, cancer etc. are found in the villages surrounding the two industrial estates. Even babies frequently turn blue at night due to lack of oxygen in the bad air. Of course, there are no longer any fish in the rivers. The pollutants have been scooped into fresh water tanks & undermined livelihoods.

The smoke in the factories in industrial areas is increasing the carbondioxide content in the atmosphere. It is anticipated that in the next centuries ahead, temperature of earth may rise by 6°C . According to the estimate, the earth's temperature has risen 2.5°C since 1850 but now rising 0.2° to 0.5° every decade. The increase in carbondioxide will make the earth more humid, forest land to shrink and sea levels to rise. North and south poles may slowly melt away increasing the frequency of floods. It is estimated that the quantum of carbondioxide in atmosphere has increased by 10% since 1890.

Others :

A number of other illustrations can be cited to show economic development has created disaster in different parts of the country. We have mostly given illustrations from India and that of consequences arising from economic development. A large number of countries face the same problem. In addition to economic development, other factors like war, spill etc. have added fuel to the fire. But since we are concerned with the linkage between economic development and environment, we have not taken other factors into account even though the present pattern of economic development in many cases leads to war in search of markets. The conclusions that we derive from the above analysis are as follows:

(i) Air, soil, water and forest resources are the basic components of the biosphere which sustain life on this planet and as one of the species we have no right to irreversibly degrade them.

(ii) In the process of development, air, soil and water have been polluted and the rate of pollution is increasing decade by decade. Forest resources have been depleted to a considerable extent and the process of depletion is increasing year by year.

(iii) The global average temperature has gone up by 0.5°C since the industrial revolution. Atmosphere carbondioxide has increased by

house gases have shot up too. And if carbon dioxide reaches twice pre-industrial level (which could happen by 2030) global temperature will be 1.5°C to 4°C higher than those to-day. The effect of such rise will be catastrophic.

Does it mean that we should sacrifice economic development in the interest of ecology? No, certainly not. We have to understand that misutilisation of land, water and forest resources has directly contributed to immiseration. No economy can thrive with 30 to 50 per cent of its land area degraded & laid waste, soil fertility steadily declining due to unchecked erosion & non-replenish of organic matter, forest resources destroyed without any other cheap and viable substitute, exhaustion of raw materials and energy resources due to the unlimited craze for technology driven industrialism, pollution of air & water, contamination of food by pesticides and chemicals and above all the 'green-house effect' i.e. the slow and steady warming up of the earth if allowed to take hold.

As pointed out in "Our Common Future", the environment is where we live, and development is what we all do in attempting to improve our lot within that abode. The two are inseparable. There is a link between poverty, inequality and environment degradation. It is criminal to say that poor countries can not afford environmental protection; inevitably the poorer countries suffer more from environmental damage from soil erosion, from floods, from polluted water and from the searing heat of shadeless plains, from crop failures caused by pests, etc. What is needed now is a new era of economic growth—growth that is forceful and at the same time socially and environmentally sustainable.

As pointed out by Holkar, the key concept which should guide our thinking about development and the environment is 'Carrying Capacity'.¹⁴ The Club of Rome and Prof. Schumacher have brought an awareness that growth may not have an ever rising curve, the resources are finite, that land is finite. They argue that growth patterns must change and take into account the basic limits imposed by our environment. We should not make heavy demands on the environment. If we take out more than we put back in, we may, for a short while, live better. But supply is not infinitely elastic, forests will disappear, oil is used up, oceans fished out, the air unbreathable, the water undrinkable & so on. We discuss not war and peace, since modern war means total destruction of human

increasing human suffering and inevitable halt of human progress. Thus sustainable use of the earth and its resources is in this sense critical issue today and is the starting point of economic and social reorganisation.

4. A Few Guidelines for Change :

It is not possible at this stage to indicate the pattern of economic and social change that will reduce poverty, increase employment opportunities, improve the standard of living of the poor, bridge the gap between the poor and rich and improve the social amenities so that people can live a healthy life and at the same time maintain an ecological balance. It is a topic by itself and needs a detailed analysis. We can only mention a few guidelines for changing the pattern of development. They are as follows.

(i) Economic Development does not mean control of nature. It means living with nature. It may be interesting to know that green plants are producing 1,30,000 million tons of sugar in one year without consuming stored resources or polluting the atmosphere. If we produce the same amount of steel or cement we will have to consume vast resources of mineral oil and coal for energy and liberating huge amount of pollutions. And these oil and coals are also plant products stored by them million years back. Dr. Frank B. Golley of Georgia has estimated that all plants of the earth produce about 143.8 million metric tons of biomass. This means, instead of destroying nature, we should judiciously use nature to produce goods and services to sustain life on earth.

(ii) Immediate steps should also be taken for reducing effluent discharges and other degrading changes from the present activities (prevention and control). The obvious case would be to tax industries that cause severe damage to the environment, especially if expenditure has to be incurred to reduce this environmental damage. But the influence of taxation policy on the environment need not always be negative. There is a strong case for tax concessions to industries that do not have an adverse effect on the environment. Other direct measures may also be taken for this purpose. But the main idea is that pollution has to be controlled to improve the quality of life.

(iii) Actions will also have to be taken for introduction of new technologies which will have much lesser environmental changes. This implies that the promotion of knowledge based industries rather than resource consuming industries is the viable alternative. The craze for increasing wants in the name of development has endangered our planet.

Gandhiji said, the earth has enough for every one's need, but not enough for every one's greed. Unless this greed is controlled, we shall not be able to undertake the extensive economic and social changes needed to direct the course of development.

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Sectoral Changes in India During the Plan Period

S. K. Palit

The annex to this note would indicate the sectoral changes in the Five Year Plans from the First Five Year Plan to the Seventh Plan. This has been given in terms of financial outlay and the figures in bracket indicate the inter-se proportion in the outlay with reference to the aggregate outlay for the Five Year Plan.

It is also possible to analyse the changes in terms of primary, tertiary and service sectors over the Seven Five Year Plans. But in the present brief note an attempt has been made to indicate the sectors in terms of the nature of economic activity, namely, agriculture, industry etc.

An analysis of the trend in the sectoral changes or attempting an interpretation of the same from statistical statement of financial outlays has its own limitations. In the first place, it indicates public sector outlay without reference to the investments in the private sector during the corresponding period. Thus the aggregate impact in respect of the economic activities relating to that sector cannot be assessed from the public sector outlay as given in the annex. Employment generation, multiplier effect and other economic consequences are the result of the aggregate investment in a particular period. They also depend on certain macro-assumptions about investment-income ratio, capital-output ratio etc. Since these figures are not readily available I have indicated the published figures of the Planning Commission relating to the public sector outlay. The second limitation of an analysis based on such an abstract statement is statistical in nature. For example, during the First Five Year Plan, 15 per cent of the total outlay was on agriculture and community development. During the Seventh Five Year Plan 13 per cent of the total plan outlay was on agriculture and allied sectors (in this case, allied sectors include rural development and special area programme in addition to agriculture). But when viewed in absolute terms, the total financial outlay in the Seventh Plan is more than 35 times the total outlay in the First Five Year Plan in agriculture. This is on account of the fact that the aggregate plan outlay in 1956 was Rs. 2356 crores as against

total plan outlay of Rs. 180,000 crores during the Seventh Five Year Plan. A scientific comparison should imply deflating these figures to a common index so that one rupee of 1951 can be compared to a rupee spent in 1981.

Notwithstanding the above limitations, one can easily discern a shift in emphasis towards irrigation and power sector over the Seven Year Plans as much as to transport, communications. Agriculture also received higher larger share in absolute terms if not in percent-

Ultimately one has to look beyond the arithmetic and the statistics of financial outlay and discern if there is a strategy underlying it; if the strategy has undergone a change in emphasis over the years.

The First Five Year Plan was mostly crisis management of an economy recovering from the after effects of partition and organising planning machinery. These were the days when food ships were imported - a large part of our requirements of food grains from abroad and we were still depending on sterling balance. The Planning Commission was being organised. By 1956 the Mahalanobis plan had taken shape, the Planning Commission was talking in terms of the technical jargons like Capital-output ratio and such other tools of modern planning in a developing economy. During the Third Five Year Plan it was obvious that notwithstanding the emphasis on heavy machine-building capacity, heavy industry, big power projects and dams, the rural and agrarian nature of the country remains the same and food production needs top priority. By 1965-66 the miracle paddy I. R. 8, the Taichung high yielding variety of exotic seeds had made their appearance. Thus after four or three bad drought years followed by rolling plans, by 1970-71, we started talking of green revolution because of the enormous success of the rice varieties in certain pockets in the country and the Mexican wheat in Punjab and Haryana. In the next five years' time, it was realised that although our achievement was spectacular, the variety of climatic conditions in a continental economy like that of India, cannot think of a uniform rate of success in increasing productivity in agriculture. Besides, certain degree of inequality was an indirect consequence of the green revolution as the capacity for inputs differed. The absence of Land Reforms, a large section of people below the poverty line continued in their present state of subsistence farmers and landless labourers. Thus instead of a break-through which we were looking for and take off of the economy into self-generating, self-sustaining

ng growth, we had settled down to a low level equilibrium which Albraith has described in his book the Age of Uncertainty, as the equilibrium of poverty. This is not necessarily the classical concept of equilibrium in a free market economy of perfect competition which is a state of idyllic felicity, where all is for the best in the best of all possible words.

Another change in the strategy in 1971 (or even earlier when intensive rice development districts and blocks were started) was to identify high potential areas or a selective approach for implementation of a development programme. It was felt that scarce resources spread thinly over a large area following a rigid schematic pattern does not give the desired impact. For example, the T. D. blocks for tribal areas were substituted by T. D. A.s for particularly backward areas. There have been changes in nomenclature and terminological innovations but basically the approach was one of providing high thrust with flexibility in programmes in identified areas. This is true in agriculture, tribal development, hill areas development etc.

The experience of planning till 1978-79 indicated that the development approach does not necessarily lead to alleviation of poverty of specially deprived, backward communities unless special programmes are designed for them. Thus started I. R. D. P., N. R. E. P. and new JRY and a variety of anti-poverty schemes. It was realised that a small percentage of people below the poverty line and the consequent economic deprivation, hunger, lack of health-care etc. do not follow automatically as a consequence of heavy industrialisation or big dams projects. The rate of growth of an economy, whether 5 or 6 per cent, is no index of the quality of life of those living below the poverty line. Infant mortality, literacy, medi-care, safe drinking water, minimum wages and the life expectancy were considered as indices of development. From this angle, Kerala and some other foreign countries would rank higher than some of the more affluent countries. Amartya Sen has done a number of interesting studies on these aspects. But basically, it is an anti-poverty programme. The conceptual aspects of the programme and the formulation of the same are ultimately academic documents. The quality of implementation at field level is taken into consideration. In one of their studies on Green Revolution, some of the Cambridge Economists have referred to the chair-borne change agents (I. A. S. Officers, Extension Officers etc) whose access is at the most to roadside villages. They have formal degrees and are more articulate than some of the farmers whose practical knowledge is based on experience. This is

yielding seeds, fertilisers and other inputs do not reach the right place at the right time. But the exercise in top-down targetry brings out excellent statistical reports for the satisfaction of those for whom they are intended. The quality of management also refers to inadequate management of water resources or the power generation capacity. Thus, higher financial outlay in this sector cannot achieve the objective in the absence of more effective management and public accountability.

Ultimately, there is no dichotomy between productive capacity and distributive justice. Thirty years back, this used to be a common question in undergraduate economics. This does not have relevance when one considers that income generation and creation of productive assets are really different aspects of social welfare and poverty alleviation.

Gunnar Myrdal in his 'Asian Drama' has referred to the backwash effect as compared to the multiplier effect. This is well illustrated by the fact that Eastern India having some of the heaviest industries, rich mineral deposits, does not compare favourably with Punjab and Haryana where medium and small units and agricultural productivity have taken economic prosperity to the door steps of larger section of the community.

In the ultimate analysis, economics in a developing country is not an exercise in linear programming, econometric model building where human problems can be solved in a series of simultaneous equations through Computers. There are socio-political parameters in the decision making process including intersectoral allocation of scarce resources. There are no independent variables in the development of a subsistence economy. Most variables are interdependent, some are not quantifiable. Viewed from this angle, it would be more appropriate to remember that Adam Smith while writing his 'Wealth of Nations' held the chair of moral philosophy in the Glasgow University, Alfred Marshall wrote his famous treatise on Political Economy. Pigou followed by a host of others wrote on welfare economics. The current scenario in a developing economy like that of India is more akin to the larger dimensions mentioned above.

Growth of Informal Sector in India

A Speculative Argument

Dr. Kishor Ch. Samal

The very concept of informal sector assumes a dualism in the economy. Generally economic development based on large-scale and capital intensive technique fails to generate adequate employment and income opportunities in the modern formal sector. As a result, the surplus labour unable to get absorbed in the formal sector has been forced to find its own source of employment and livelihood in a variety of productive activities which are designated as informal, murky, grey, petty producing micro-business, small-capitalist, marginal sector and so on.

It is generally assumed that the informal sector units are able to persist and expand in spite of hostile environment and factor and product market imperfections, in which they operate.

In this paper, we have divided the whole economy of India into two sectors—informal and formal. The size criterion is used to bring distinction between informal and formal sectors. In spite of the difficulties in bringing distinction, the significance of the concept of informal sector is recognised for various reasons. This paper proposes a speculative argument about the growth of informal sector in India, though it bases the analysis on the result of various field studies including one in Sambalpur (Orissa). Part—I analyses the growth of informal sector in urban areas and Part—II in rural areas in India, Part—III gives the conclusion.

I

Urban Informal Sector

The size of the urban informal sector may be a function of the size of the urban centre. The urban size class hypothesis can be tested in direct as well as in an indirect way. There are some speculative arguments about the relationship between city size and the informal sector.

There are two main contrasting views on the relationship between

between the two thereby implying that informal sector employment tends to decline as the size of the city increases (Balsubramanian and Raju: 1986, Chakraborty: 1984, Kull: 1984; Richardson: 1984). In contrast, the second view assumes that informal sector employment tends to increase as the size of the city expands, thus establishing a positive correlation between city-size and informal sector (Hilhorst : 1984, Kundu and Mathur : 1984).

But no paper has identified informal sector with a clearcut criterion. And except Kull, all have come to conclusions with the speculative arguments. In view of this, in our study on a small city of Orissa, we have, first, attempted to identify the informal sector. We have measured the city-size in terms of population and have identified the informal sector by the size criterion.

Empirical Definition/Size Criteria

In some of the empirical studies and other theoretical papers in and outside India, efforts have been made to demarcate the informal sector from the formal sector and estimate the size of the informal sector. Most of these studies followed one or other criteria such as type of working class, types of occupation, the size of the firm, income, place of work etc., or combination of more than one criterion.

At the outset, in our study on Sambalpur we recognise the differentiation within the informal sector and hence suggest different sub-sectors/structures. We also believe in further classification of these sub-sectors. To us, the first order condition for a unit in any sub-sector to be in informal sector must satisfy the size criteria with a cut-off point of 10 workers including owner-operator, unpaid family labourers and casual workers. The simultaneous employment of more labourers requires a larger amount of capital, which in consequence determine the form in which the owner takes part directly in the working of the unit below this size (size of 10); and above this size, he may cease to have direct participation in the enterprise and may remain absent from the unit having no personal relationship with the employees. So, we can safely assume that an enterprise employing more than 10 workers usually requires a greater amount of managerial skill and capital.

The second order condition is the observance of some features

relationship with its employees and customers, (iv) determination of wage on the basis of bargaining between the employer and employees and (v) existence of two modes of production. viz : (a) petty modes of production where means of production are owned by those who work with these and (b) simple or small capitalist mode of production, where there are wage labourers but comparatively in small numbers in the unit owned by the master-capitalist. (Samal: 1990b). It is obvious that all the units in the public sector, irrespective of their size are excluded from informal sector. Informal sector may further be classified as (i) Micro-business, (ii) Petty producer and (iii) Small-capitalist producer.

We have taken a small city, Sambalpur in the western part of Orissa for our study. Its population was, 1,12,645 in 1981 against 64,675 in 1971. The total labour force was 36,804 in 1981 according to 1981 census.

To estimate the size of the informal sector in the town, we depend on census data, particularly Establishment Tables and General Population Tables, Annual Survey of Industries (Orissa) and information available from the office of the Assistant Labour Commissioner and District Industries Centre. We relied on primary data collected through our field study to find out the growth of employment in the informal sector.

Empirical Result :

According to our calculation for the year 1983-84, the total number of workers employed in the formal manufacturing sector (factory, workshop and domestic industry) in Sambalpur Town is approximately 3400. The employment in trade, commercial and other establishment in the formal sector in the town is around 5,100. Thus, the total employment in all establishments in the formal sector is around 8,500 in 1983-84. Our estimate of total workers for the same year is around 47,000. Therefore, the total workers including those employed in establishments employing less than 10 and other non-establishment workers are about 38,500 in 1983-84. That is, in Sambalpur town, the informal sector employment is around 47,000. Thus, about 82 per cent of employment in the town is in informal sector during the year 1983-84.

The informal sector employment was around 15,100 out of the total workers of 19,239 in the town in 1971. Thus, the estimated share of the informal sector in the labour force of the town was about 79 per cent. Thus, the share of the informal sector employment in the town has

decreased from 79 percent in 1971 to about 82 per cent in 1984. The growth in the informal sector employment, particularly in the five-year period from 1980-81 to 1984-85 is due to both horizontal as well as vertical expansion but mostly owing to new units.

Direct Evidence/Other Studies :

Analysing the size of the informal sector employment in different towns and cities in India from various studies, we come to the conclusion that the proportion of informal sector employment in all cities and towns in general, is higher than the proportion in metropolitan cities. A similar type of conclusion is also found in another study. According to the study in South Indian cities of one lakh and above population except for capital cities of the States of Andhra Pradesh, Karnataka and Tamil Nadu, population size and the informal sector are inversely related. (Balasubramanian and Raju : 1986). That is the South Indian cities with larger population have smaller proportion of informal sector.

The size of informal sector employment in various towns and cities in India is given in Table-I, which shows that while informal sector employment constitutes more than three-fourths of the urban employment in small cities and towns, it is around 50 per cent or less in the metropolitan cities in India.

TABLE-I

Estimated Share of Informal Sector in
Labour Force in various Cities and Towns in India.

S. N.	Cities/Towns.	Year	Percent
I.	Small cities/towns.		
	1. Sambalpur (Orissa)	1990	81.98
	2. Valsad (Gujarat)	1975	75.00
	3. Vishakhapatnam (Andhra Pradesh)	1971	92.99
II	Metropolitan Cities.		
	1. Ahmedabad	1971	47.00
	2. Bombay	1971	49.5/51.3
	3. Bangalore	1971	40.34
	4. Calcutta	1971	40.50
	5. Delhi	1971	53.80

Sources : (1) Aziz (1984); (2) Breman (1979); (3) Joshi & Joshi (1976); (4) Majumdar (1980); (5) Papola (1980); (6) Samal

Thus, in our empirical study of a small city of the population of 12, 645 (1981), we come to know that as the size of the city (when size measured in terms of population) increases, the share of informal sector employment in the total labour force increases; establishing the thesis that the city size and the size of the informal sector employment has a positive correlation due to both horizontal and vertical expansion of the informal sector units.

But when we take the indirect evidence and compare the size of informal sector employment of selected small cities/towns with that of metropolitan cities of India, we find a negative correlation between the city-size and the size of the informal sector employment. That is, the size of informal sector in metropolitan cities is lower than that in small cities and towns. However the information on which the conclusion is drawn is too much insufficient due to deficiency of data on other small cities and towns.

In spite of these limitations, from our empirical study and the indirect evidence, we can postulate a hypothesis that in the earlier stage of development of a city from a very small size to an optimum level, the size of the informal sector is positively correlated with the city size; while after the optimum level, the two are negatively correlated.

Informal sector employment in developing countries has been growing faster than formal sector employment and the proportion of informal sector employment in small cities and towns in general, is higher than the proportion in big cities. Assuming that urbanisation is an accompaniment of development and observing that there is an increasing tendency of growth of the size of urban informal sector in developing countries, one can generalise that in the earlier stage of development urban informal sector would grow but in a later stage, a declining trend may ensue in the share of informal sector. At a high level of development, there is likely to be a tendency towards substitution of informal sector by formal sector.

In the development process, some sub-sectors in the informal sector which are linked to industrial development will grow at an increasing rate and others which face stiff competition from formal sector will grow at a decreasing rate (Samal 1990a). Though there may be competition between the two sectors in certain activities, one sub-

or in the informal sector. In most activities, it is more likely that growth of formal and informal sectors get linked together.

II

al Informal Sector :

In most of the countries, there is rapid growth of rural informal sector (non-farm activities). Along with this trend, a dualism has developed in it (Mukhopadhyay : 1986). One is traditional informal sector consisting of rural artisans and another is modern informal sector composed of new units catering to the requirements of the modern agricultural development.

A variety of factors have been identified in various studies to explain the concentration of rural informal sector (non-agricultural activities) in specific regions (Shukla: 1989, Unni : 1991).

- (i) agricultural prosperity
- (ii) backward and forward production linkages that the informal sector has with the agriculture.
- (iii) spill-over of rural workers, who are not absorbed fully in agriculture into non-agricultural activities.
- (iv) impetus both from agriculture or outside it.

III

Conclusion :

Thus in the development process in India, there is every possibility of growth of informal sector in both urban and rural areas. It is possible in rural areas due to agricultural development in terms of growth of output and productivity and in urban areas owing to encouragement of subcontracting and ancillarisation of both Central and State Governments. Moreover, the increasing trend of privatisation in India will lead to rising "fractionalisation" of large scale enterprises under the system of subcontracting. Along with this "moon-lighting", "multiple-job holding" and "street vending" will proliferate due to galloping inflationary spiral. All these factors will help in growth of informal sector.

There is also increasing evidence to show that informal sector activities exist and proliferate not only in developing countries including India but also in advanced industrialised capitalist and socialist

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The Trend of Disproportionality in the Composition of NNDP and NSDP : A Comparative Analysis

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and
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Introduction :

Notable economists like Colin Clark, Fisher, Kuznets Baur and may have examined the relationship between sectoral compositions of economy and the degree of its economic development. Though not unanimously agreed, many economists hold the view that the secondary and tertiary sectors are more productive than the primary sector. The expansion of secondary and tertiary sectors would lead to higher rate of growth of income. Similarly, contradictory views on indicators of economic development and progress are very much apparent among the leading economists of the world as well as in India. While Simon Kuznets (1949) says that "a country experiences development, if its real national income rises over the long period", Viner (1953) on the other hand gives emphasis on the rise of real per capita income as the true indicator of development and growth. Particularly for underdeveloped countries, Chandra (1982) holds the view that net domestic product (NDP) is a misleading indicator if tertiary sector grows rapidly than the other two sectors of the economy. Similarly, Madhusudan Datta (1989) has made a distinction between Net National Domestic Products (NNDP) and Net Material Products (NMP) and states that NMP is a better indicator of economic growth and progress than that of NNDP. Despite the differences in perception on the choice of Indicator, the development of an economy involves an increase in real national income and inter sectoral changes in output of secondary and tertiary sectors.

Objectives :

This paper attempts to make an empirical exercise to test the validity of B-M hypothesis and Nagraj's hypothesis in the context of India's economic profile and to gauge the sectoral growth trends in India in comparison to India in order to provide a firmer basis for a

ingful debate on Orissa's economic performance. It studies the growth trends and structural changes of NNDP of India in general and Net State Domestic Product (NSDP) of Orissa in particular. Section—II of the paper analyses the growth trend of NNDP and NSDP and makes a comparative study of the sectoral changes in NNDP and NSDP. The Section—III of the paper summarises the findings of the study.

Methodology :

The study is based on the secondary data collected from the National Accounts Statistics of different years, published by C. S. O., Government of India and revised estimated values for NSDP have been obtained from the Directorate of Economics and Statistics, Government of Orissa. The paper studies the growth trend of NNDP in its sectors from 1950-51 to 1986-87 at 1980-81 base. Whereas the data for NSDP covers the period from 1950-51 to 1988-89 at 1970-71 prices, we have estimated both linear and exponential trend lines and growth rates for the entire period and for each decade separately. The comparison of economic performance and sectoral composition of the economy of Orissa vis-a-vis all India does not get vitiated by taking two different series. Further, we purposefully avoid detailed sectoral disaggregation in order to focus our attention on comparable sectoral shifts of Orissa with that of India.

II

Data Analysis :

In our attempt to examine the long term trends following Rao (1983) and Nagraj (1990) we have estimated the growth rates over the successive decades for NNDP and NSDP. The decadal annual average growth rates of NNDP is found to be the lowest for the decade 1971-80 and the highest for the period 1978-87 (Table-1). Correspondingly the growth of NSDP of Orissa is found to be the lowest also for the decade 1971-80 and the highest for the period 1961-70. It is seen that the growth rate of NSDP has remained consistently below the national decadal average annual growth rate.

Table—I DECADAL ANNUAL GROWTH RATE

Period	Orissa	India
1951-60	2.62	3.46
1961-70	3.99	3.77
1971-80	1.65	2.74
1980-89	3.17	4.38*

* It refers to the period 1868-87

By considering the entire plan period of 39 years for Orissa and 47 years for India it is estimated that the growth rates of NSDP and P are respectively 2.71% and 5.50%. This fact is corroborated by estimation of linear and exponential trends as represented in Table-2. The slope co-efficients of exponential trend for NNDP and P are 0.034 and 0.026 respectively.

Table-2
GROWTH RATE

NNDP (From 1950-51 to 86-87)	NSDP (ORISSA) (From 1950-51 to 83-89)
Linear Trend : $NNDP = 28744.7883 + 2733.3212 \times$	$NSDP = 476.0924 + 26.45 \times$
Exponential : $NNDP = \text{Exp} (10.5755 + 0.0345 \times)$	$NSDP = \text{Exp} (6.3306 + 0.0267 \times)$
Growth Rate : $NNDP = 3.50\%$	

Source : (i) National Accounts Statistics, 1989, 1986-87,
C. S. O., Govt. of India.

(ii) Directorate of Economics and Statistics, Govt. of Orissa.

Higher rates of growth of both NNDP and NSDP have been observed by all the three sectors of the economy. There has been differential rate of growth among the sectors. The slope co-efficients of linear trend estimated for all the three sectors over the entire period for Orissa and India are always positive. The exponential lines are also having positive slopes (Table-3). The slope co-efficient is the highest for the secondary sector of India and for Orissa as well. Correspondingly it is also noticed that the growth rates for the primary sectors are the lowest compared to the other two sectors. On the whole the rate of growth of the secondary sector is the highest at 5.50% for India and 4.13% for Orissa. The tertiary sector of the Indian economy is growing at the rate of 4.55% almost in a parallel pace with the secondary sector. However, the tertiary sector of Orissa is growing at 3.50% over the entire period. The growth of secondary as well as tertiary sector of Orissa stands always at a lower level than that of India. On the otherhand, the rate of growth of the primary

Table-3

SECTORAL GROWTH

INDIA 1950-51—1986-87		ORISSA 1950-51—1988-89	
Linear Trend			
Primary	: 21830. 6171+788. 0159×	, =	364. 033+14.4704 ×
Secondary	: 2397. 7523 +794. 0002×	, =	34. 8893+3.5487 ×
Tertiary	: 4778.0856+1142. 9542×	, =	82.0315+ 8.3502 ×
Exponential Trend			
Primary	:Exp (10. 0764+0.0215×	=	Exp (6.0012 + 0.0222×
Secondary	:Exp (8. 7151 +0. 0486×	=	Exp (3.7441 + 0.0405×
Tertiary	:Exp (9.2262 +0.0445×	=	Exp (4.7537 + 0.0344×
Growth Rate			
Primary	: 2.178%	=	2.246%
Secondary	: 4.981%	=	4.133%
Tertiary	: 4.554%	=	3.502%

Source : (i) NAS,C, SO, Govt. of India, 1989, 1986-87.

(ii) Directorate of Economics and Statistics, Government of Orissa.

While looking at the sectoral shifts & compositions of both NNDP and NSDP, it is noticed that there is perceptible change and disproportionality (Table-4). The linear trend of the share of the primary sector for both India and Orissa registers a declining trend while for two other sectors there has been a rising trend.

Table—4
TREND OF SECTORAL SHARES

	INDIA	ORISSA
Linear Trend		
Primary	: 59.705 - 0.6156 ×	= 71.5947 - 0.2995 ×
Secondary	: 15.2781 + 0.2807 ×	= 7.8681 + 0.1165 ×
Tertiary	: 25.5782 + 0.3172 ×	= 20.5805 + 0.1178 ×
Exponential Trend		
Primary	: Exp (4.1075 - 0.0129 ×)	= Exp (4.2709 - 0.0045 ×)
Secondary	: Exp (2.7447 + 0.0141 ×)	= Exp (2.0147 + 0.0138 ×)
Tertiary	: Exp (3.2558 + 0.0101 ×)	= Exp (3.0263 + 0.0075 ×)
Growth Rate		
Primary	: -1.286%	= -0.446%
Secondary	: 1.425%	= 1.390%
Tertiary	: 1.011%	= 0.757%

Source : (i) NAS, C. S. O., Govt. of India
(ii) Directorate of Economics and Statistics, Government of Orissa.

The negative slope co-efficient of linear trend of the share of primary sector of Orissa is 0.29 and for all India is 0.61. The positive slope co-efficients of secondary sectors of India and Orissa are respectively .2807 and .1165, and for the tertiary sectors are .317 and .117. The exponential trend co-efficients of the primary sector, therefore, are negative both for all India and Orissa. But the positive slope of the exponential trend for both secondary and tertiary sectors of India are found to be greater than that of Orissa. Similarly, we also find that the share of primary sector has registered a steady decline for the entire period for Orissa and India. The rates of decline are respectively 1.28% and 0.44% while the growth rate of the share of secondary sector of India is 1.42% and for Orissa 1.39%. Further, the growth rate of the share of the tertiary sector of all India is higher than that of Orissa.

III

Conclusion

We may summarise the major findings of the study as follows :

1. The decadal annual average growth rate of Orissa is always lower than that of India except for the decade 1961-70 when the growth rate was the highest at 3.90% as compared to three other decades.

During the entire plan period of 37 years, the growth rate of NNDP is estimated to be 3.5% and during the entire period of 39 years the growth rate of NSDP is only 2.71%.

The growth rate of secondary and tertiary sectors of Orissa during the period under study has remained at a very lower level than the national scenario. However, the growth rate of the primary sector of Orissa is higher than that of India. It shows that the dominance of the primary sector in NSDP has not declined to any noticeable extent.

There has been perceptible change and disproportionality in the sectoral composition of NNDP and NSDP. The share of the primary sector of Orissa had decelerated at a lesser rate and the share of secondary and tertiary sectors has increased at a lesser rate in comparison to the all India level.

Our empirical evidence clearly suggests that it is the secondary sector of Orissa and in all India which has grown at a faster rate and has contributed proportionately more to NNDP and NSDP than the tertiary sectors. Thus, our findings support the findings of Nagraj (1990) and reject the proposition of Bhattacharya and Mitra (1990).

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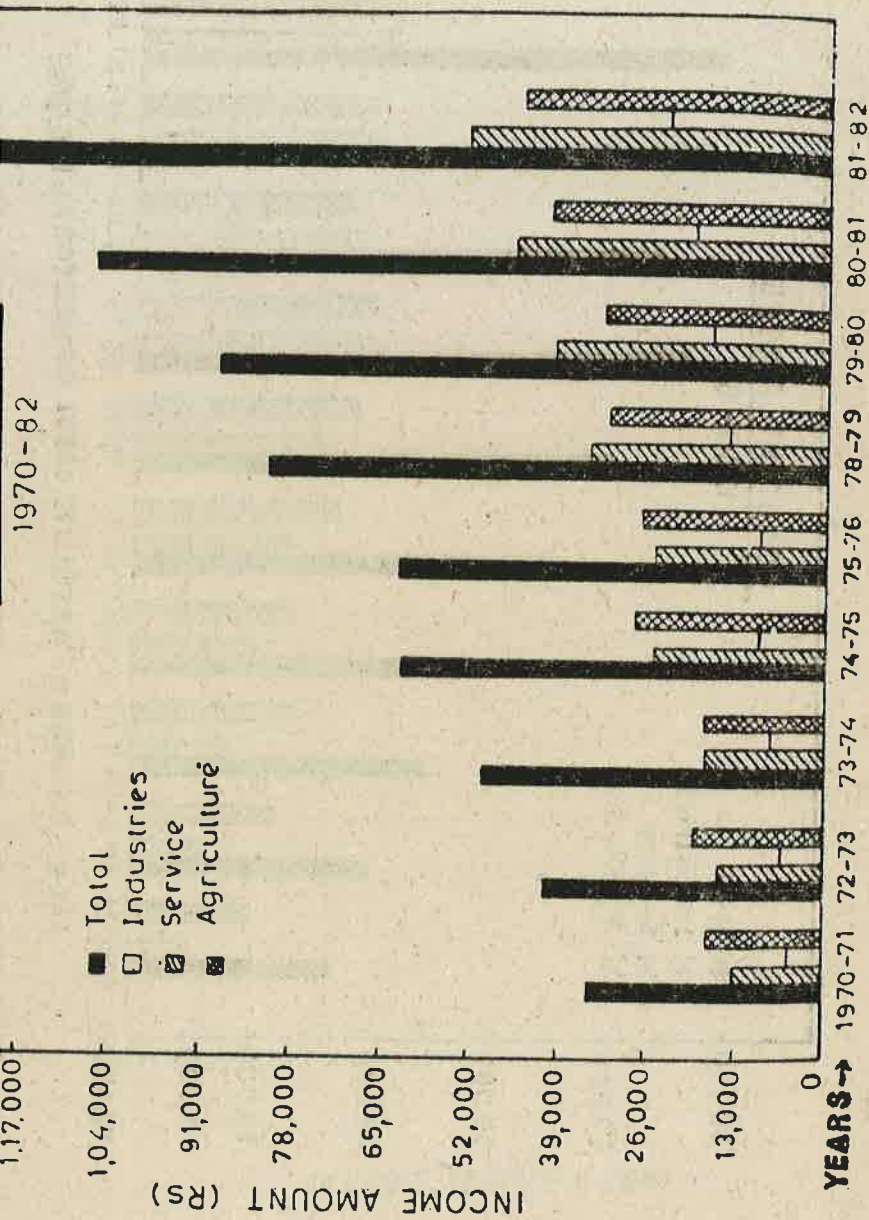


Fig. 1 : CHANGE OF ABSOLUTE LEVEL OF SECTORAL INCOME

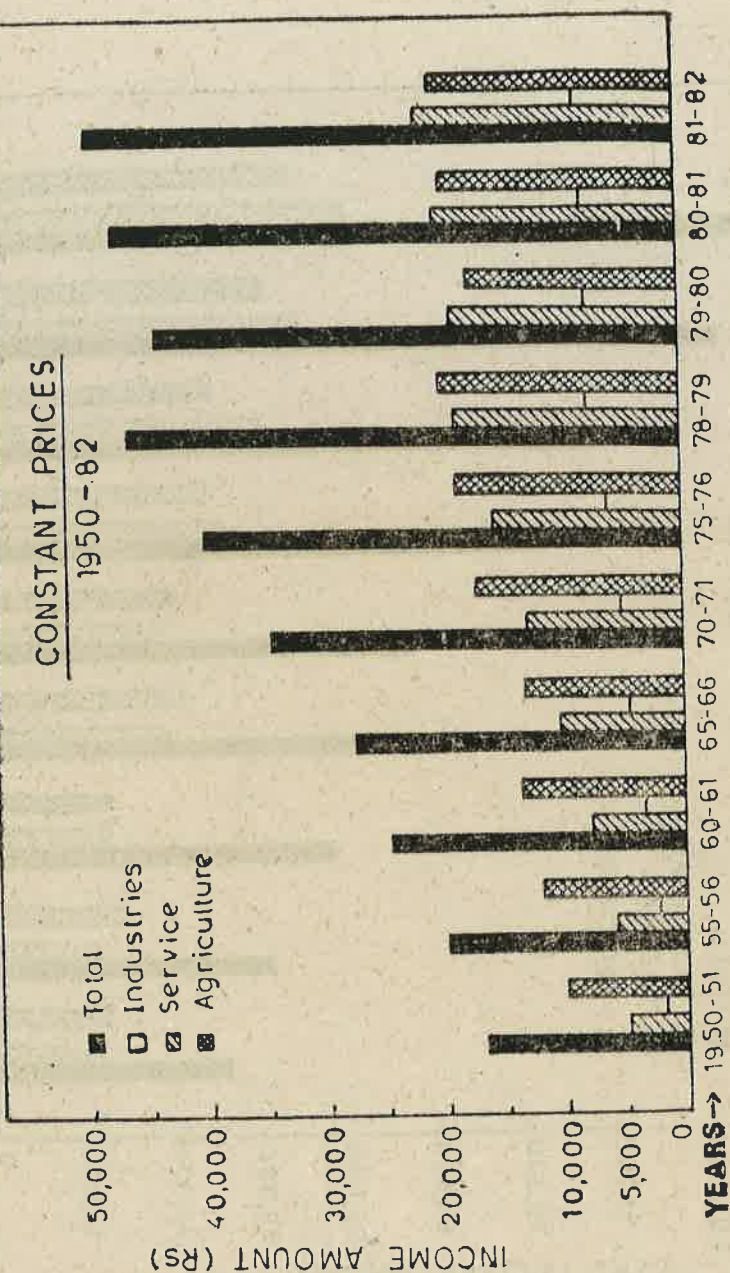


Fig. 2 : CHANGE OF ABSOLUTE LEVEL OF SECTORAL INCOME

CURRENT PRICES
1970-82

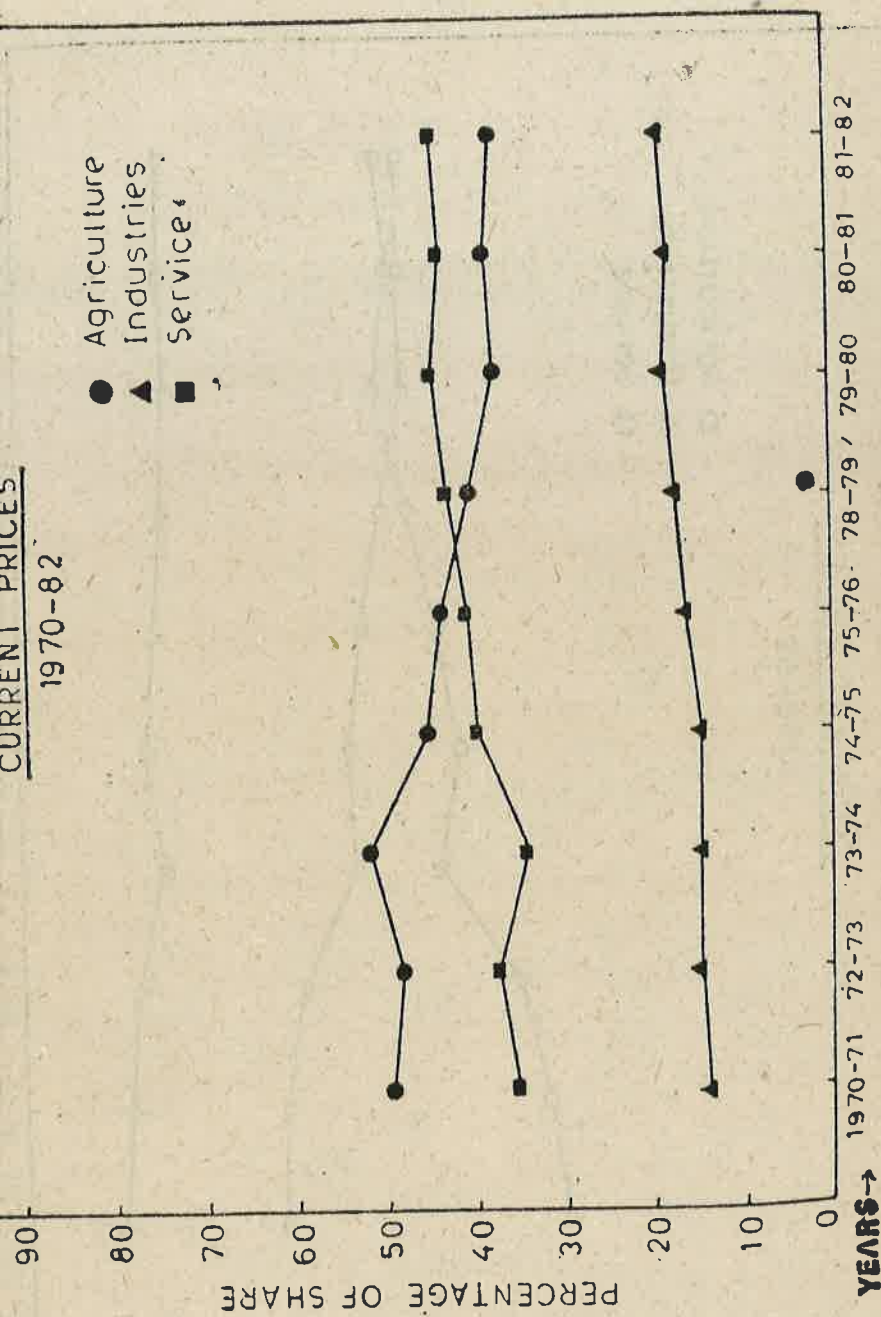


Fig. 3 : CHANGE OF SECTORAL SHARE OF INCOME

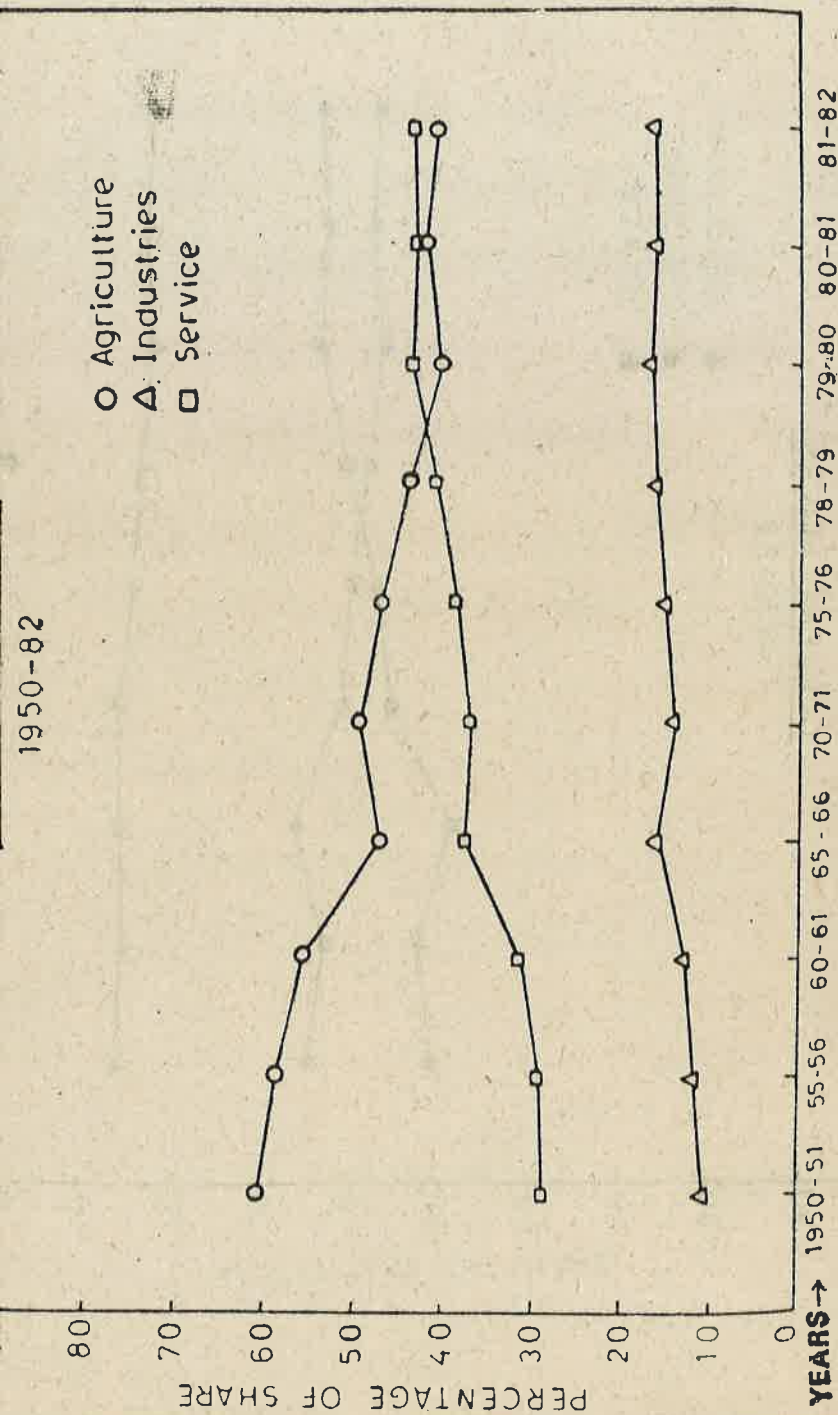


Fig. 4 : CHANGE OF SECTORAL SHARE OF INCOME

Change in Sectoral Income Share in Indian Economy— A Statistical Note

Dr. Jyoti Prakash Patnaik

In figure 1 absolute level of sectoral income has been presented over time at current prices and in figure 2 it is depicted at constant prices. All the three sectors show signs of growth at current prices. But agricultural sector shows signs of fluctuation at constant prices. It dipped to the lowest magnitude within the last decade in 1979-80. The service sector has however, an uninterrupted growth.

Fig. 3 and Fig. 4 present change of sectoral share of income. Share of agriculture in GDP declined at current and constant prices which prove Kuznets' hypothesis in the context of India. The share, however, increased between 1965-1970-71 at constant prices revealing impact of Green Revolution. It dipped in 1979-80 which was bad rainfall year. Compared to 1950-51, when manufacturing share was 11% only, it increased at constant prices to 16% in 1981-82, which is a marginal increase. The story repeats itself when income share is measured in real sense. The service sector is booming at current and constant prices.

Trend Analysis :

We fit trend lines by least square method. This is done at constant prices and current prices.

Time period [1970-80]

Constant Prices

				R ²
Eq (1)	A/Y	=	$0.617 - 0.02t$ $t = 2.8235$	0.83
Eq (2)	I/Y	=	$0.1141 + 0.0058T$ $t = 1.5611$	0.75
Eq (3)	S/Y	=	$0.02727 + 0.0175T$ $t = 3.2407$	0.91

where

A/Y	—	Agricultural share of income
I/Y	—	Industrial share of income
S/Y	—	Service share of income
T	—	Time

Degrees of freedom — 9.

The null hypotheses are rejected in all the three cases.

NATIONAL PRODUCT

Table 167-NATIONAL PRODUCT AT FACTOR COST

(at current prices)

Items	1950-51	1955-56	1960-61	1965-66	1970-71	1975-76	1978-79 (P)	1979-80 (P)	1980-81 (P)	1981-82 (P)
1	2	3	4	5	6	7	8	9	10	11
Gross National Product (GNP) (Rs. Crores)	9,136	9,710	13,999	21,866	36,452	66,115	86,816	95,023	1,14,601	1,30,100
Net National Product (NNP) (Rs. Crores)	8,812	9,262	13,263	20,637	34,235	62,069	81,123	88,372	1,06,539	1,21,000
Estimated Population (Crores)	35.9	39.3	43.4	48.5	54.1	60.6	64.8	66.3	67.8	69.0
Per Capita Net National Product (Rupees)	245.5	235.7	305.6	425.5	632.8	1,024.2	1,251.9	1,332.9	1,571.4	1,740.0
Index Number (1970-71=100)										
GNP ...	25.1	26.6	38.4	60.0	100.0	181.4	238.2	260.7	314.4	380.0
NNP ...	25.7	27.1	38.7	60.3	100.0	181.3	237.0	258.1	311.2	380.0
Per Capita NNP ...	38.8	37.2	48.3	67.2	100.0	161.9	197.8	210.6	248.3	290.0

Table 168—NATIONAL PRODUCT AT FACTOR COST

(at 1970-71 prices)

Items	1950-51	1955-56	1960-61	1965-66	1970-71	1975-76	1978-79 (P)	1979-80 (P)	1980-81 (P)	1981-82 (Q)
1	2	3	4	5	6	7	8	9	10	11
National Product	17,469	20,854	25,424	28,791	36,452	42,571	49,386	47,002	50,767	53,424
GNP) (Rs. Crores)										
National Product (NNP)	16,731	19,953	24,250	27,103	34,235	40,064	46,386	43,922	47,490	49,887
Rs. Crores)										
ated Population (Crores)	35.9	39.3	43.4	48.5	54.1	60.6	64.8	66.3	67.8	69.3
apita Net National	466.0	507.7	558.8	558.8	632.8	661.1	715.8	662.5	700.4	719.9
product (Rupees)										
Number (1970-71 = 100)										
P...	...	...	...	79.0	100.0	116.8	135.5	128.9	139.3	146.6
P...	...	...	...	79.2	100.0	117.0	135.5	128.3	138.7	145.7
Capita NNP	...	...	...	88.3	100.0	104.5	113.1	104.7	110.7	113.8

Quick estimates.

Source : Central Statistical Organisation, Deptt. of Statistics

Ant Prices

				R^2
1)	A/Y	—	$0.5248 - 0.0183T$ $t = 5.7187$	0.83
2)	I/Y	—	$0.1248 + 0.0077T$ $t = 7.8902$	0.90
3)	S/Y	—	$0.340 + 0.012T$ $t = 5.7142$	0.81
Degrees of freedom		—	8	

Null hypotheses are rejected in all three cases.

Testing Kuznets' Hypothesis

Kuznets had shown through cross-section study that shares of agricultural income and industrial income have negative and positive relation with increase in economic development and a mixed relation as far as service sector is concerned. We seek to prove or disprove Kuznets' hypothesis empirically through time series study. In the regression model Y stands for GDP.

Ant Prices

1)	A/Y and Y	r	=	-0.9412
2)	I/Y and Y	r	=	0.8594
3)	S/Y and Y	r	=	0.9367
Degrees of freedom		—	9.	

Correlation is statistically significant in all the three cases.

Ant Prices

1)	A/Y and Y	r	=	-0.8836
2)	I/Y and Y	r	=	0.9086
3)	S/Y and Y	r	=	0.8777
Degrees of freedom		—	8.	

Correlation is statistically significant in all the three cases.

Kuznets' hypothesis is proved for agricultural and industrial sector on the basis of CSO data. The service sector, however, is not in line with economic development. There is no mixed finding.

An Economic Analysis of Intra-Sectoral Utilisation of Resources In Indian Agriculture During Plan Periods

Dibakar Naik

And

Rashmi Ranjan Dhal

In the development of Indian Planning, the total utilisation of resources has increased from 1960 crores to 2,19,180 crores from the first to the sixth five year plan. The total resources have increased to the extent of 134.69 per cent, 86.45 per cent, 83.98 per cent, 149.87 per cent and 178.10 per cent respectively during the second, third, fourth, fifth and sixth five year plans. In this paper an attempt is made to examine the following twin areas.

Objectives :

- (i) To examine the inter-sectoral utilisation of resources during the plan periods in India.
- (ii) To analyse the intra-sectoral absorption of resources in Indian agriculture during the plan periods.

Source Data :

The data relating to the total outlay and actual expenditure during the plan periods in various sectors as well as different departments of agriculture are collected from the Indian Agriculture in Brief, published by the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India.

Inter-Sector Utilisation of Resources During Plan Periods in India

The total expenditure in various sectors during plan periods has increased from 1960 crores (first plan period) to 1,09,646.20 crores (Sixth plan period) during 1951 to 1985. It was proposed to incur an outlay of 30,000 crores during the seventh plan period. The total outlay in

g first and sixth five year plans. However, its share in the total expenditure has declined from 10.8 per cent (first plan period), to 6.4 per cent (sixth plan period) due to allocation of resources for rural development, land reform and special area programme since fifth plan onwards. Industrial sector was given priority during second to fifth plan periods absorbing 23 to 24 per cent of the total plan expenditure. However its share in the total plan expenditure was reduced and remained at a level of 10 per cent during sixth and seventh plan periods. Science & Technology sector of the new sectors getting importance in absorbing a share to the extent of 1 to 1.5 per cent of the total plan expenditure during recent planning process.

a-Sectoral allocation of resources Indian Agriculture :

Indian agriculture which absorbs a major share of the plan outlay, intra-sectoral outlay is displayed in Table-2. The development of crop husbandry was given importance during the fifth plan period recording 31.34 per cent of the total plan outlay of the agricultural sector, followed by investment in agricultural financial institution (12.33 per cent), special area programme (10.66 per cent), animal husbandry and dairy (10.37 per cent), cooperative (8.90 per cent) and rural development (5.92 per cent) etc. In the seventh five year plan, rural development was given importance by increasing allocation of resources from 5.92 per cent (fifth plan) to 38.07 per cent (seventh plan). The shares for crop husbandry and animal husbandry in the plan outlay was reduced from 31.34 per cent (fifth plan) to 15.97 per cent (seventh plan period) and 10.37 per cent (fifth plan) to 4.72 per cent (seventh plan) respectively. The shares for development of forestry and special area programme have increased significantly recording 8.15 per cent and 13.79 per cent respectively in the seventh plan period.

a-Sectoral utilisation of Resources Agriculture and its allied sectors :

The intra-sectoral utilisation of resources in agriculture and its allied sectors is presented in Table-3. Utilisation of resources for crop husbandry alone was 19.08 per cent and 29.25 per cent respectively in fourth and fifth plan periods of the total expenditure. Then it was reduced to 10.56 per cent in sixth five year plan. The total expenditure for rural development which was 11.82 per cent and 11.04 per cent respectively in fourth and fifth five year plans of the total expenditure in agricultural sector increased sharply to the extent of 38.81 per cent in

during the fifth five year plan received special attention in sixth plan period and it alone absorbed to the extent of 8.46 per cent of the total expenses incurred in agricultural sector. It is even more than the expenses incurred in Animal Husbandry, Forestry & Agricultural Marketing. Fisheries which is one of the important disciplines in agriculture and plays a crucial role in earning foreign exchange absorbed only 3.00 per cent to 3.23 per cent of the total expenditure during fourth and fifth plan periods. It was reduced to 1.90 per cent in seventh plan period. Agricultural marketing is very important in providing storage and a dependable market support has not received its due share in the process of planning. Less than one per cent of the total expenses in agricultural sector was used for the development of agricultural marketing. A total of 7.17 per cent of the total expenditure incurred in agriculture and its allied sectors was utilised for development of agricultural research and education. It was reduced to 3.19 per cent in sixth plan period. A sizeable share of the total outlay should be devoted for agricultural research for developing new technology for the farming community. Thus, the areas like fisheries, dairy, agricultural marketing, agricultural research and extension and food processing should be given more importance in the allocation of resources.

Sectors	First	Second	Third	Fourth	Fifth	Sixth	Seventh*
1. Agril. including Co-operative & Forestry	210.9 (10.8)	215.4 (4.7)	528.0 (6.2)	1,555.1 (9.9)	3,216.9 (8.1)	7318.4 (6.4)	10,573.6 (5.9)
2. Rural Development including land reform	79.0 (4.0)	218.7 (48)	288.5 (3.4)	208.5 (1.3)	604.2 (1.5)	6114.3 (4.9)	9,074.2 (5.0)
3. Special Area Programme.	...	...	...	...	168.1 (0.4)	1571.2 (1.5)	3,144.7 (1.7)
4. Irrigation on Flood Control.	434.1 (22.2)	515.1 (11.2)	937.1 (10.9)	1910.9 (12.1)	4,752.2 (12.1)	10952.2 (12.5)	16,978.6 (9.4)
5. Energy.	148.8 (7.6)	445.5 (9.7)	1252.3 (14.6)	2,931.7 (18.6)	7,399.5 (18.8)	31,059.7 (27.2)	54,821.3 (30.5)
6. Industry and Minerals.	96.8 (4.9)	1075.5 (23.4)	1967.1 (22.9)	3,107.0 (19.7)	9,581.1 (24.3)	17,290.0 (15.4)	22,460.8 (14.5)
7. Transport.	476.4 (24.3)	1,244.5 (27)	1,986.7 (23.1)	3080.4 (19.5)	6,870.3 (17.4)	14,156.7 (12.7)	22,971.0 (12.8)
8. Communication	41.4 (2.1)	55.3 (1.2)	125.0 (1.4)	...	...	3,493.1 (3.2)	6,472.5 (3.6)
9. Science & Technology.	...	...	71.6 (0.9)	130.8 (0.8)	...	1019.8 (0.9)	2,466.0 (1.4)
10. Social Service (Education, Health, Housing & Urban Development)	411.9 (21.0)	730.2 (15.9)	1420.2 (16.6)	2,556.8 (16.2)	6,833.9 (17.4)	15808.0 (14.4)	29,350.5 (16.3)
11. Others	60.7 (3.1)	99.8 (2.1)	...	297.8 (1.9)	...	888.6 (0.9)	1,686.8 (0.9)
	1,960.0 (100)	4,600.0 (100)	8,576.5 (100)	15,778.8 (100)	39,426.2 (100)	1,09,646.20 (100)	1,80,800.0 (100)

* It refers to the total outlay during the seventh plan period.

Micro-Sectors	5th Plan		7th Plan	
	Outlay	%	Outlay	%
1. Crop Husbandry	1322.2	31.34	3,641.8	15.97
2. Soil & Water Conservation	221.1	5.24	740.4	3.24
3. Animal Husbandry & Dairing	437.7	10.37	1,076.7	4.72
4. Fisheries	150.0	3.55	499.2	2.19
5. Investment in Agriculture, Financial Institution.	519.8	12.32	353.6	1.55
6. Co-operation.	375.7	8.90	1,400.6	6.14
7. Management of Natural Disaster	—	—	21.1	0.09
8. Agricultural Research & Education	—	—	704.6	3.09
9. Forestry	205.7	4.87	1,859.1	8.15
0. Ag. Marketing Rural Godowns.	123.5	2.97	149.4	0.65
1. Food, Storage, Warehousing etc.	—	—	307.1	—
2. Land Reforms.	162.5	3.85	395.8	1.73
3. Rural Development Excluding Land Reforms.	249.8	5.92	8,678.4	38.07
4. Special Area Programme	450	10.66	3,144.7	13.79
Total Agricultural & Allied Programmes.	4,218.0	(100.00)	22,792.5	(100.00)

**INTRA-SECTORAL UTILISATION OF RESOURCES
DURING FOURTH TO SIXTH PLAN IN INDIAN AGRICULTURE. (Figures in Crores)**

Micro Sectors.	4th Plan (1969-74)	5th Plan (1974-79)	6th Plan (1980-85)
Crop Husbandry.	336.6 (19.08)	1,167.2 (29.25)	1,584.8 (10.56)
Soil & Water Conservation.	163.6 (7.67)	249.3 (6.24)	532.8 (3.55)
Animal Husbandry & Dairying.	135.4 (7.67)	316.2 (7.92)	806.5 (5.37)
Fisheries.	53.0 (3.00)	128.9 (3.23)	285.4 (1.90)
Investment in Agriculture, Financial Institutions.	185.6 (10.52)	507.3 (12.71)	1,461.9 (9.74)
Co-operation.	239.6 (13.58)	466.8 (11.70)	1,002.7 (6.68)
Management of Natural Disasters.	—	—	—
Agricultural Research & Education.	126.6 (7.17)	—	479.4 (3.19)
Forestry.	88.5 (5.01)	218.4 (5.47)	805.3 (5.36)
Agricultural Marketing & Rural Godowns.	226.2 (12.82)	152.8 (3.83)	83.6 (0.55)
Food, Storage, Warehousing, etc.	—	—	275.8 (1.83)
Land Reforms.	—	163.7 (4.10)	290 (1.93)
Rural Development Excluding Land Reforms.	208.5 (11.82)	440.5 (11.04)	5,824 (38.81)
Special Area Programmes.	—	168.1 (4.21)	1,269.6 (8.46)
Total Agriculture & Allied Programmes.	1,763.6 (100.00)	3,989.2 (100.00)	1,500.4 (100.00)

Sectoral Changes in India During the Plan Period

Dr. P. C. Mohapatra
Sri D. Eswar Rao Patnaik

roduction :

The era of planned economic development was ushered in an economy on first April, 1951 with the inception of the first year plan. In our march towards development, we have almost completed seven five year plans. Our plans aim at "bringing about a structural transformation of the economy, so as to achieve a high and sustained rate of growth, a progressive improvement in the living standards of the masses leading to reduction of unemployment and poverty and provide the material base for a self reliant socialist economy". The cumulative growth efforts of planners and public authorities have succeeded in increasing the National Income by 3.5% between 1951-1981, while per capita income picked up by 1.4 per cent during the same period. The growth rates of agriculture during the 6th five year plan period had slipped at 4.3% as against the targeted rate of 3.3% while the growth rate in industry at 3.7% has lagged behind the postulated growth rate of 4.9%. The service sector has a note of optimism with 6.6% growth rate in plan period, which is higher than the targetted figure of 5.5% .

Development and Employment Pattern

Development involves a transfer of the working force from agriculture to secondary and tertiary sectors. In U.S.A., there has been a sharp decline in the proportion of working population engaged in agriculture from 54% in 1860 to 23% in 1930. Indian experience however reveals that the proportion of working population engaged in primary sector has marginally declined from 72.1% in 1951 to 68.1% in 1981. While 10.6% of the work force depended on secondary sector in 1951, it has touched the figure of 13.5% in 1981. The tertiary sector has expanded wherewithal for 17.8% of working population in India in 1981 against 17.3% in 1951. The underlying tendency is accounted for by the flexibility of industrial sector to widen the employment base, in commensurate with the rate of growth of population and lamentably low rate

agricultural productivity, to facilitate inter sectoral transfer of population. Further due to acceleratingly increasing population, the proportion of agricultural labourers is high i.e. 22.4% of total labour force in 1981. The performance of tertiary sector in providing jobs for the growing millions was not impressive.

Development and Structural Changes

Reflected in Distribution of net Domestic Product

Factor Costs :

It has been hypothesised by Colin Clark that, as industrialisation proceeds, it brings about an improvement in the share of industry and tertiary sectors in N.N.P. In a poor country like India, there has been a decline in the contribution of the primary sector to N.N.P. from 61.3% in 1950-51 to 50% in 70-71 and finally to 39% in 1984-85. The share of agriculture has come down from 58.7% in 50-51 to 54% in 60-61 till it reached 36.6% in 1984-85. This only affirms the contention that, in primary sector, agriculture holds the key for determining the size of N.N.P. Agricultural production which depends on the vagaries of monsoon severely retard the size of national dividend. The share of forestry, quarry and mining in net product has covered round 2 to 4%.

The share of the Secondary Sector, which includes manufacturing industries, construction, electricity, gas, and water supply has increased from 14.5% of net domestic product (1950-51) to 21% in 84-85. The share of registered manufactured industries increased from 5.4% in 50-51 to 10% in 84-85, while the share of unregistered manufacturing units has steadily increased from 4.6% in 50-51 to 5.2% in 1984-85. The tertiary sector, which includes trade, transport, communications, banking and real estate, along with community services has improved its share appreciably from 12% in 50-51 to 40% in 84-85.

The share of transport, communications and trade in N.P.P. has a handsome increase from 11.6% in 50-51 to 19.2%. The share of banking and insurance and real estate improved from 3.5% to 6.4%, while the share of public administration, and defence has markedly improved from 2.8% in 50-51 to 9.7% in 84-85. Thanks to the sanguine improvement in every segment of the tertiary sector, India is experiencing a structural change in the process of transition from an agricultural economy to an industrialised one. An egalitarian society is in the offing. But the process is slow due to the tardy rate of growth of manufacturing output and small scale

Sectoral Priorities in Plan Period :

Tables 1 and 2 annexed to this paper represent the sectoral contribution and priorities under plan period.

(a) **Agriculture:** Agriculture was accorded a premier position in the first five year plan claiming 31% of plan outlay. It was contemplated by planners that rapidly growing agriculture will promote forward packages, supply raw material and food grains for the rapid growth of industries. In subsequent plans, 20-25% of public outlay was earmarked for the food sector. In the second five year plan, lucrative industrial progress was accomplished at the expense of a much attractive development of agriculture. A new dimension in developmental planning was the revival of the importance of agriculture in the 7th plan which has allotted 12.4% of the plan outlay on agriculture and rural development and 9.4% of total outlay on irrigation and flood control.

The main prop of green revolution is use of H. Y. V. of seeds, pesticides and fertilisers in agriculture. This has immensely benefited irrigated tracts of the economy and in main wheat is the major beneficiary of the package programme. So, our endeavour is to extend the coverage of hybridised seeds to dry lands and cereals like rice and pulses.

(b) **Power Programme :** The first 4 five year plans have allocated only 10 to 15% of plan outlay for power sector. It occupied a low area in the map of plan priorities, due to low use of electricity and tardy growth of industries. The seventh plan however, has departed from the preceding plans by assigning 30.6% of outlay on energy sector, so that energy constraint would not act as a stumbling block on agrarian and industrial development of the economy.

(c) **Industry :** The share of industrial sector was stepped up from 10% in the first plan to 24% in the 2nd plan at the instance of Mahalanobis. Industrialisation was contemplated, to provide for a larger increase in production, in investment and in income. Deficits mounted up, chronic food shortages appeared in the economy, alarming foreign exchange crisis undermined the strength of the economy and employment generation lagged behind population growth. However, industrial development is essential for the overall development of the agricultural sector. In the seventh plan the scale of priorities tilted in favour of energy and agriculture. Only 12.2% of the plan outlay was allocated to industry in the

(d) Transport and communication : The share of the sector has declined from 25-28% in the first 3 plans to 16% in the 6th plan and to 1% in the 7th five year plan. As the transport and communication sector plays a pivotal role in the rapid economic development of an economy, it is time for the planners to lay more emphasis for the development of this sector.

(e) Social Services : Growth is no guarantor of the trickle down effect. So beneficiary oriented schemes like IRDP & ERRP were launched to make a dent on poverty. The share allotted to the sector has declined from 22% in first plan to 15% in the 6th plan and eventually shot up to 5% in the Seventh five year plan. However still a vast segment of population remains below poverty line.

Conclusion :

In spite of all the development efforts that the planners did, so far only 64 per cent of the villages could be electrified by the end of the 6th plan. The installation of thermal power generating plant, computer machines and the launching of telecom exchange are feathers to the cap of industrial development. Yet, poverty alleviation seems to be an elusive goal. To make a dent on poverty, the focus of our plans should be on rural industries, cottage industries, construction and public administration. The average Indian has ascended in income ladder from Rs. 2,355 in 1984 to Rs. 2,596 in 1986-87. It however represents a growth in money terms not matched by growth in production.

Agriculture and industry are production sectors of the economy, while the other sectors are supporting sectors of these twin sectors. Agriculture makes a product contribution to industry, when it supplies food grains to the latter and market contribution when it purchases some of the finished goods produced by industry. Industry too, has its quota of contribution for agrarian development, when it promotes linkage effects, through supply of the recent-know-how like improved fertilizers and machines for agricultural development. Agriculture and industry are interlocked with each other through symbiotic relationship.

Agriculture contains immense potential for generating employment opportunities in the low income economy of India. In the words of Dr. M. S. Swaminathan in any employment strategy, anywhere between

SECTORAL EXPENDITURE (FIGURES IN BRACKETS REVEAL PERCENTAGES)

Year and period	Agriculture and Irrigation	Power	Industry	Transport & communications	Social Services.	Science Technology and Environ-ment.	General Services & economic services.	Total
1960 Actual	600 (31)	260 (13)	120 (6)	520 (27)	460 (22)	—	—	1960 (100)
1961 Actual	950 (20)	440 (10)	1080 (24)	1300 (28)	830 (18)	—	—	4600 (100)
1962 Actual	1750 (21)	1250 (14)	1970 (23)	2120 (25)	1490 (17)	—	—	8580 (100)
1963 Actual	3810 (24)	2450 (15)	3630 (23)	3240 (20)	2770 (18)	—	—	15900 (100)
1964 Actual	8650 (22)	7360 (19)	10290 (26)	6920 (18)	6100 (15)	—	—	39320 (100)
1965 Actual	24700 (25)	19370 (20)	23050 (24)	15540 (16)	14840 (15)	—	—	97500 (100)
1966 Actuals	39312 (21.8)	55129 (30.6)	22108 (12.3)	27119 (15.1)	31545 (17.5)	2463 (1.4)	2324 (1.3)	1,80,000 (100)

Table-1

DISTRIBUTION OF NET DOMESTIC PRODUCT AT FACTOR COST.
PERCENTAGE DISTRIBUTION (AT 70-71 PRICES)

Sector	1950-51	1960-61	1970-71	1984-85
	%	%	%	%
A				
Primary sector	61.3	56.6	50	39
1. Agriculture	58.7	54.0	47.2	36.0
2. Forestry	1.3	1.1	1.2	0.5
3. Fishing	0.6	0.7	0.7	0.7
4. Mining & Quarrying	0.7	0.9	0.9	1.2
B				
Secondary sector	14.5	17.1	19.8	21.0
5. Manufacturing	10.0	12	13.6	15.1
6. Construction	4.3	4.6	5.3	4.4
7. Electricity, Gas & Watersupply	0.2	0.5	0.9	1.5
C				
Tertiary Sector	24.2	26.3	30.2	40
8. Trade transport etc.	11.6	13.5	15.8	19.2
9. Finance & real estate	3.5	3.8	4.8	6.4
10. Community & personal services.	9.1	9	9.5	14.4
Total Net Domestic product (A+B+C)	100%	100%	100%	100%

Promoting Women's Activity in Development

Brief Appraisal of ICDS (Integrated Child Development Services) Programme in Birmaharajpur Block of Bolangir District (Orissa State)

Dr. P. K. Mohapatra

The problem of integrating women in the development process is now engaging the attention of planners and policy makers all over the world, not so much because of the International Women's decade and the United Nations' call for action plans for this purpose, but because of increasing realisation of the social imbalances that development itself has created. Increasing inequality between the affluent and the poor (between and within countries) and between development in rural and urban areas has been causing concern for some time. The dimensions of this modern version of inequality between men and women are still only partially understood—by either policy makers or implementors. Various National and International Organisations have initiated different programmes on women development to focus greater attention on women's needs and problems as they are affected by the process of economic transformation, social change, and population dynamics.

Rural women constitute the largest group, who have not only been bypassed in the distribution of the fruits of development but whose traditional roles and status in their own society are also being altered adversely by the nature of development process. Several studies have revealed that disillusionment and scepticism have become the characteristic features of international discussions on development. Monopolisation of economic and political power as well as access to knowledge are the major instruments by which the present structure of inequality between and within the nations is maintained. The majority of women in the world, especially in Asian countries have little or no share in these instruments. Thus pushed into the background, women's positions are even marginalised by their labour not being counted as productive and

and its products. This is more vigilant in Tribal pockets and areas inhabited by economically poorer sections than in urban and marginally developed rural areas.

To look at Indian Women, they are a bundle of complexities, exploited from within and out. It has been long recognised that certain demographic features of female population of India, namely marriage at early age, high rate of infant mortality and morbidity, low literacy rate, low rate of workers' participation indicate their low status in the society. Social structures, cultural norms and value systems influence social expectations regarding the behaviour of both men and women and determine a woman's role and her position in society to a great extent. The Indian society consists of communities professing diverse religions and faiths. The Society is divided into distinct caste groupings. Majority of the Indian population follow the patrilineal system as descent which has an important role to play in the use and ownership of land and other economic resources and political decision making. Women are considered as less capable and with limited abilities on their mobility than men. It goes further that (as men contend) women in their homes are incapable of organisation and are, unknowingly security conscious and submissive, taking advices which are at times detrimental in many ways.

In the modern world it is obvious that normative standards have not changed at the same pace as changes in other forms of social organisation brought about by such factors such as technological advance, urbanisation increasing pollution and changing costs and standard of living. This gap explains the frequent failure of law and educational policies to bring about the desired impact on social attitude. The social status of women in India is a typical example of this gap between the position and the roles awarded to them by Constitution, and the laws and those imposed on them by tradition. The fact is that the women in India—say approximately 50% of the total population are not the victims of destiny; they are the victims of neglect, deprivation and exploitation. It is one's fashionable expression to say that inequality is ordained, God made men and men unequal—some rich and others poor. This phenomenon is the result of a socio-economic order maintained by coercive political opportunists under which men appropriate the wealth and riches to their own advantage.

This necessitated Government of India to design a special Scheme titled, as INTEGRATED CHILD DEVELOPMENT SERVICE SCHEME

which is one of the most important schemes in the area of child development and in which women can play a vital role to organise early childhood services for future development of the children in all respects. The ICDS programme was first introduced in our State during the year 1975-76 in the Subdega Block of Sundargarh District as a Central Sector Scheme on an experimental basis. As the scheme gained popularity, it was expanded during the Sixth and Seventh Plan periods. In order to give definite focus to the development of services for children in the age group of 0-6 years and nursing and expectant mothers of all communities, the following package of services are being provided :

1. Supplementary Nutrition;
2. Immunisation;
3. Health Check-up;
4. Referral services;
5. Nutrition and Health Education;
6. Non-formal pre-school education.

The objectives of the Integrated Child Development Services are :

- (i) To improve the nutritional and health status of children in the age group of 0-6 years;
- (ii) To lay the foundations for proper psychological, physical and social development of the child;
- (iii) To reduce the incidence of mortality, morbidity, mal-nutrition and school drop-outs.
- (iv) To achieve effective co-ordination of policy and implementation amongst the various departments to promote child development ; and
- (v) To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

At present, 134 ICDS projects are functioning in the State. Out of these, 78 projects are in the tribal areas, 52 projects in rural areas and 4 projects in urban areas. Supplementary Nutrition is provided to children below 6 years of age and Nursing and Expectant mothers from low income families at the Anganwadi Centres.

In this paper, I have attempted to study the—

- (i) Problems confronted by the Women in India in general with special reference to rural sector and factors responsible for the same;
- (ii) The Government's plan for improving their socio-economic condition; and
- (iii) The slow progress in achievement of the desired target and reasons thereof.

I have tried to seek explanations and explore some of the methods for arresting the adverse impact—not in the abstraction of social science theory, but in the spheres of practical administration and social mobilisation. While the social scientists search for deeper explanations and relationships between the different phases of social transformation, the problems now being experienced by rural women—the unintended victims—cannot wait, and call for immediate intervention by public authorities and persons who have a social conscience.

Many welfare schemes are being launched in the field area under different nomenclatures without taking into consideration human behavioural aspects in project planning and implementation. The people, to whom the scheme is undertaken are neither taken into confidence nor their participation is meaningfully solicited and as such making the delivery of package of services seems difficult enough for grassroot level functionaries to ensure expected change within a reasonable time frame.

For analysing the above, an attempt has been made to study the programme performance of Birmaharajpur ICDS Block in Bolangir District on a scientific and choose method. Birmaharajpur ICDS project is one of the eight ICDS projects of Bolangir District which was commissioned on 01-07-1983. The District has two different physical zones namely the hills of the West and river valleys of the East. Fortunately, Birmaharajpur happens to be in the river valley area. Currently, the project area is covering 85 villages (with original Anganwadis of 72 plus 13 sub-centres) to render Social Welfare services on ICDS framework to identified group of 6,000 beneficiaries. The area of the project is 146.17 square miles having a population of 66,749 (Male 34,946+Female 31,803) as on December, 1990 according to ICDS survey. The break-ups of categorywise beneficiaries

Age-wise classification	No. of eligible bens
Below 06 months	1006
6 months to 01 year	1057
1 year to 03 years	3470
3 years to 06 years	4560
Pregnant mothers	757
Nursing mothers	1006

The project area has been divided into four sectors, i. e. Ufula, Malpadar, Nursundhi and Subalaya to facilitate delivery of package of services and for supervision of related social welfare activities. The supervisor has been assigned to each sector for close supervision and monitoring of programme performance.

Though the scheme has been in operation for last seven years, the impact is yet to be felt. The infant mortality still continues at 132 per 1000 live birth as against National average of 120. Undoubtedly, there has been some awareness for which this has reduced from 182 to 132, i. e., over a period of 7 years. All over the globe people have come to know that India is a party to the Universal Commitment to secure "Health for all by 2000 A.D." as declared at Alma Ata by the World Health Assembly in 1978. To achieve this target, efforts are being made towards identification, developmental adoption and implementation of appropriate technologies for health. While it is important to develop technology at macro level, very little is thought of at the micro level, i. e., family level.

Perhaps one of the important instruments to achieve the target of health for all would be a mother or a woman in the family. It is now well recognised that the most important health worker is the "Mother" herself. Mother provides most of the world's health care. Within the family: it is she who inculcates sound health practices in children besides caring and nursing them. Both at the family and community level, women are the Chief Health CARE programmers and therefore, they form the key and mainstay of Primary Health Care. This ideology is also expressed through ICDS concept. But lack of appropriate requisite facilities at Anganwadi level at times creates hindrances in promoting the activity

People's participation is considered vital component in the effective implementation of a development programme. With this in view, Govt. of Orissa has issued directives to all programme points to form local ICDS committees with official and non-official members taken together. Though the Committees are in existence, participation is not much encouraging due to lack of Anganwadi Buildings where a common forum can be established between functionaries and local public.

Since the programme is of MCH (Maternity & Child Health), it comes obligatory on the part of the programme functionaries to take adequate interest and make the scheme viable so as to generate interest among the women of the area. The only possible way in Indian situation is to educate, motivate and organise the women at first to make them break of their "culture of silence" and extend a lending hand to others who are also the victims. The women's organisation so emerged can make use of their own hand on their rights; and when these groups are linked to the like minded organisation—like any other demand, their demand too can take the shape of health services demand which can fulfil the objective of the scheme designed for them. Here comes the real participatory approach. When they realise that such services are beneficial to them, they will take on their own and act as a decision influencer to begin with which ultimately can alter the functioning of the structure of the society.

Under ICDS, the workers are usually trained to impart training to beneficiary participants to make best out of waste materials available locally. Though the training imparted to workers are worth while, it is observed that this is not being implemented basically for two reasons:

- (i) Anganwadis do not have a building of their own. 95 % of the Anganwadis function in someone's courtyards and at the whims and pleasure of land owners.
- (ii) In case they make any product out of such materials, there is no provision for quality control and marketability. As such, most workers are scared of undertaking such an activity.

It is high time for Government to think on this line with certain measures generating activity, so that in the long run a project can be sustained.

Women in Indian situation are an innumerable

family, if properly guided and educated. These things need no explanation and keeping this in mind, out of the total commodity aid used in supplementary nutrition given through ICDS Anganwadis at least 25 % should be utilised for income generating activity. In Birmaharajpur eventhough State Government has raised minimum wage to Rs. 25/- per day, male workers continue to receive Rs. 11/- and female workers Rs. 8/- which is a symbol of direct exploitation. Functionaries informed that lack of Govt. directive in writing is responsible for such payments.

Review of literatures reveals that more educated the mother, the less likely that her children meet any health hazard. According to a survey conducted by the National Institute of Nutrition, the literate mothers are better aware of family welfare measures and desirous of keeping the family size to the prescribed limit of acceptability. The fact that the members of the families are better fed and better clothed where mothers are educated. There is close association between the country's per capita income, health and the level of education. Poor countries have high incidence of infant mortality and relatively low life expectancy. Further higher the literacy rate, lower is the incidence of ill health. For example, Kerala State in South India enjoys highest literacy rate (95%), its rural infant mortality rate is as low as 05 per 1000 life births as against All India average of 120. In one of the International Conference it has been stated that "Health is not mainly an issue of Doctors, Social Scientists or Hospitals". It is an issue of social justice. It is an issue of who gets what available resources. The health of the people is ultimately related to their income, education and to their job opportunity etc.. If Health for all is to be ensured by 2000 A. D., the changes must be made in the entire socio-economic and political systems in any given community :

This being the reality, Maternal and Child Health (MCH) envisages a dual role to play :

1. Creating infrastructural facilities in the rural areas and organising mothers into groups based on issues;
2. Making available adequate resources to meet the nutritional requirement of children and mothers.

These two are part of the in-built objective of the ICDS.

Realising the magnitude of the problem like lack of infrastructures, poor access to credit, poor marketing facilities and the changing

productive relations adverse to women which have been the major handicap to women employment, particularly self-employed women. Govt. of India in the 7th Five Year Plan have proposed to assist the State Govt., and U. T. Administration for setting up Women's Development Corporations. In setting such Corporations, Govt. of India agrees to contribute 49% as equity participation and balance 51% will be met by the State Governments. The approved share capital limit of the Corporation will be of Rs. 1.00 Crore. Our State has just availed this opportunity and has set up one such Corporation on 05-03-1991. Based on the above write-up, following suggestions are made :

To create sufficient awareness in the rural area and thereby encourage women participation in ICDS for creating infrastructural facilities which are a must to carry out day to day activity as the same is found inadequate at the moment. When ICDS were started on experimental basis, they displayed great receptivity and undoubtedly demonstrated considerable impact in village life. Whereas as they got expanded to over 2000 Blocks in the country side, the efforts are being diluted and input, output ratio is becoming marginal;

The suggestion of bringing in expanding community participation is an attempt to reverse the "TOP-DOWN" system approach in Social Welfare activities for furtherance of women's participation. With this encouragement, local public will have a say in solving their own problems who have been regularly overlooked in the past. There is need to make local people visibly involved in ICDS project activity which if implemented appropriately, will check the misuse of assistance given by the Government and different agencies. Selection of the projects on political basis has been the cause of negative effect wherever being reported;

While providing supplementary nutrition is a warranted necessity due to prevalence of high infant mortality rate (National average being 120 and Birmaharajpur average being 132 per 1000 life births), provision of creating permanent assets through labour intensive programmes is very much needed in the context of augmenting employment opportunities for parents and supplementing their cash income. Economic stability once created will ensure maintenance of nutritional status on long term basis.

In the rural area everything should not be given free. Giving free induces the people to ask for more and exert less. While taking care

scrutiny should be made to enroll the effective participation of the beneficiaries so that they feel a party to the services rendered to them, which they can maintain subsequently and will not aim at misuse of Govt. cash and kind input;

Periodical orientation on ICDS is considered imperative for all the Functionaries so that local Panchayats popularise the programme to ensure its effective utilisation. The system should be such that ultimately Government and Voluntary Agency Officials should act like Facilitators and play supportive role and village community should assume the sole responsibility.

Though the scheme envisages more or less all the above, suggestions are being made to reinforce the same time and again. Since this is the decade for Women's development, if MCH programme is implemented satisfactorily at least one important sectoral change in the country side can be achieved which is very fundamental in creation of vast human resources that are untapped to a great extent.

Integrated Rural Development Programme and Rural Sector

**—An Economic Review of
Laxminarayanpur in Salipur Block
During Sixth Plan Period.**

Dr. Sofia Khanom

In the Sixth Five Year Plan, the Government played a crucial role through various rural development programmes for changing the rural economy. There was a great concern for large scale poverty in rural India during the middle of the 70's. It was estimated that about 40 per cent of the households were poor and this proportion remained unchanged despite the considerable growth in aggregate national income in the rural sector. The distribution of additional income, generated, was quite uneven. It accrued in larger proportion to those who owned land and had productive assets, or were skilled in different types of work. The generation of this increased income was significantly less with the poor, who are largely resourceless and un-skilled wage-earners. Thus there has been a growing concern that the rural poverty can be changed with endowment of productive assets or development of skills with the poor, so that they can employ themselves usefully to earn more income which will help them to overcome poverty. Creation of productive assets and generation of employment opportunities are the steps towards poverty-alleviation. These steps should be considered essentially as a supplement to fill in the gaps of rural unemployment.

The Planning Commission in its Draft Sixth Five Year Plan 1978-83 (revised) reviewed the approach to rural development, specially with reference to the poor. It visualised the need for an integrated plan of development of the block level, within which a special beneficiary oriented plan for the poor was to be appropriately fitted. After briefly reviewing various development plans in operation, the Planning Commission in its draft plan suggested a comprehensive strategy and approach for attaining these objectives through specific programmes. It has got a multi-level attack on the problem of rural development, mainly on poverty-alleviation, specifically, it has a sharp focus on target groups, comprising of small and marginal farmers, agricultural labourers and rural

artisans. It is extremely location specific planning in rural areas. Thus the draft Plan visualised the integrated rural development as a total plan for the block, based on the local resources and their productive use. The specific beneficiary oriented schemes for the rural poor were to be set within this plan, in the sense that these schemes had to be consistent with and form an integral part of the total plan for the block. But the planners were not sure about the execution of such schemes at the block level. Therefore, as an interim device, it was decided to centre the attention on identification of the rural poor and to prepare plans for the development of those individual beneficiaries and this was named as the Integrated Rural Development Programmes (IRDP)—a major Programme for rural poverty-alleviation.

It is proposed to replace the multiple agencies in the field by a single integrated programme called IRDP. The IRDP has been conceived essentially as an anti-poverty programme in the rural areas. It is concerned with only a section of rural population and their development. The idea of preparing a resource based development plan at the block level. The Integrated Rural Development Programme (IRDP) was conceived as an poverty-alleviation programme for rural areas, in particular, for small marginal farmers, landless labourers and rural artisans. These people did not possess productive assets or special skills other than their manual labourer. Therefore, the plan document emphasized that "Any development strategy which aims at improving the poor must aim at creating new productive assets for them". These assets would include sources of irrigation for those with some land, plough and implements besides inputs like seeds and fertilizers, milch animals and other animal husbandry activities and tools and training for cottage industries and handicrafts etc.

So an attempt was made to examine the anatomy of rural poverty and to articulate the dynamics of changes in the rural areas. This is an attempt to study the functional inter-action of activities undertaken by the development programme under IRDP for poverty alleviation in a sample village of Salipur Block of Cuttack District, during sixth plan period.

The identity of the problem for the study in analytical impact of rural development programmes on the sample village and appraisal of rural changes. Concentration of poverty on the sample area, needs

The Study area is encircled with different poverty alleviation programmes under I. R. D. P. which help in economic transformation through income-generation. Integrated Rural Development Scheme supplies seeds, chemical fertilisers, pesticides and other inputs to the selected sample households.

The objective of the study is to identify the determinants of income change and measure their relative strength, during Sixth Plan period.

Methodology :

It is an empirical and inductive study. The field data used in the study were collected through questionnaires and personal interviews with the respondents. The field survey was made in the village—Laxminarayanpur of Salipur Block in Cuttack District. The Block consists of triple homogenous villages. Laxminarayanpur is a well known but remote place, 10 kms from the main Cuttack-Kendrapara Road. It has a weekly market, which is famous for green vegetables and potatoes.

The primary data were collected from 51 simple households on the basis of random sample technique. 'L' Test is used to examine the difference in income generated in the pre and post inception of the rural development schemes.

Impact of Rural Development Programmes :

In this study an attempt is made to examine whether there is change in the level of income of beneficiaries between the base year and the year after receipt of the assistance through rural development programme. The investments made by the Government through various programmes have got their effects upon the different sizes of sample households like agricultural labourers, marginal and small farmers, petty traders and rural artisans.

Number of assisted House-holds :

The number of assisted household in Laxminarayanpur during 1980-81 and 1982-83 is placed in Table—1.

Table-1

Number of Assisted House-holds under different schemes during 1980-81 and 1982-83

Schemes/Year	1980-81	1982-83
Agricultural Development Scheme	...	22
Milch Animal	10	6
Village Craft	7	6
Total :	17	34

During 1980-81, 17 sample households of Laxminarayanpur are under integrated rural development programme. It increased to 34, covering all the schemes during 1982-83.

The rural economy of sample village is mainly land-based and agrarian in character. Hence enough attention was given to land based programmes.

Table-2

Number of Assisted House holds under different schemes of IRDP of sample village during 1980-81 and 1982-83.

Year	Agricultural Development				Village Craft		Milch Unit		
	Seeds	Ferti- lizers	Pesti- cides	Others	Carpe- ntry	Tailor- Shop	Cow	Goat	
1981	—	—	—	—	3 (42.8)	3 (42.8)	1 (14.2)	6 (60)	4 (40)
1983	6 (27.2)	8 (36.3)	4 (18.8)	4 (18.8)	—	6 (100)	—	1 (16.6)	5 (83.4)

Figures in parantheses are percentage to total assisted Households.

Table-2 indicates the number of sample assisted households under various developmental programmes; Agricultural development scheme covers maximum sample households in the village recording 22 during 1982-83 whereas it was zero during 1980-81. It also indicates that I. R. D. credit supply programme for village crafts extends to only 7 during 1980-81 and 6 during 1982-83. Milch animal covers 10 sample beneficiaries

Table-3

* Value of difference in income of marginal farmers of Laxminarayanpur between pre- and post-inception of different schemes during 1980-81 and 1982-83

Scheme	"t" value	
	1980-81	1982-83
N.R.E.P.	3.56**	2.90*
A.D.	—	6.17**

* Significant at 5 per cent level of probability

** Significant at 1 per cent level of probability.

Thus Table-3 indicates that the difference in the level of income during the pre- and post-inception of N. R. E. P. of 1980-81 and 1982-83 is statistically significant. Similar observations are also reflected through the implementation of agricultural development programme among the marginal farmers during 1982-83.

Table-4

* Values of difference in income generated from specified source of Marginal Farmers of Laxminarayanpur between pre- and post-inception of different schemes during 1980-81 and 1982-83.

Scheme	"t" value	
	1980-81	1982-83
N. R. E. P.	3.74*	2.28*
A. D.	—	6.17**

* Significant at 5 per cent level of probability.

** Significant at 1 per cent level of probability.

Table-4 indicates that the difference in income (from specified source) generated through N. R. E. P. during its pre- and post-inception period among marginal farmers of Laxminarayanpur village is statistically highly significant during 1980-81 and 1982-83. Further the difference in income (from specified source) generated through agricultural development programme during 1982-83 is highly significant. Thus it shows that the N.R.E.P. as well as Agricultural Development Programmes have been able to increase the income to a significant extent among the marginal farmers of Laxminarayanpur during 1980-81 and 1982-83.

A group of assisted house-holds are agricultural labour force (AL)

involved in the milk animal programme. Table 5 indicates that

Table—5

value of difference in income of A. L. of Laxminarayanpur between pre- and post-inception of milch animal scheme during 1980-81 and 1982-83.

Scheme	“t”	
	1980-81	1982-83
Milch Animal	3.31 **	2.57 *

Significant of 5 per cent level of probability.

* Significant of 1 per cent level of probability.

Laxminarayanpur village is statistically highly significant during 1980-81 and 1982-83. This shows that the supply of milch animal and quality feeds to improve cows among the agricultural labourers have led to a significant extent in increasing their income.

Table—5

Value of difference in income generated from specified sources of agricultural labourers of Laxminarayanpur between pre- and post-inception of different schemes during 1980-81 and 1982-83.

Scheme	“t”	
	1980-81	1982-83
Milch animal	3.32 **	5.93 **

* Significant of 1 per cent level of probability.

The “t” values of difference in income (from specified sources) generated through milch animal programme by agricultural labourers of Laxminarayanpur during the pre- and post-inception periods are presented at Table 5. This indicates that the income generated by the agricultural labourers to a significant extent through the milch animal programmes. Thus the difference in income during pre- and post-inception period is statistically significant during 1980-81 and 1982-83.

Conclusion :

The findings of the study are based to examine impact of I.R.D.P. rural sectors through the implementation of schemes during 1980-81 and 1982-83 of Sixth Plan Period.

Effects of agricultural oriented rural development schemes on the income of the sample house holds :

The effectiveness of such schemes is examined in relation to what extent it helped in changing the employment structure, asset position

income levels of the assisted households over the period. The increase in net incremental income through the assistance is highly significant during 1980-81. Similar findings are also observed during 1982-83.

Effects of Milch animal scheme on the income of beneficiaries :

Majority of households have received assistance in the form of milch animals and quality feeds to existing improved cows. The difference in income during the pre and post inception of the scheme is highly significant indicating that the assistance supplied through rural development programme has helped to increase the income of the assisted households to a significant extent.

Effects to NREP on income of the assisted households :

The NREP has helped to increase the income to a significant extent among the marginal farmers, rural artisans and petty traders of sample households during 1980-81 and 1982-83.

On the basis of the study, it is suggested that public investment under the programmes like IRDP, ERRP or NREP must be channelised to eliminate economic divergence between assetless assisted households and non-assisted property owners. The leakages must be minimised and the non-assisted households must get proper scope to be owners of rural assets. There should be a rethinking about methodological weakness in selecting the beneficiaries.

The impact of such observed difference on poverty programme suggests the need for genuine "integration" at 3 levels, for real poverty alleviation.

(1) First at the micro level, there is need for matching the potential of the poor households with the potential of the region where they are located.

(2) Secondly at the macro level, the pattern of agricultural growth should be consistent with and conducive to poverty-alleviation.

(3) Thirdly, as far as wage-employment programmes are concerned, these must be inter-woven with general developmental programmes, especially those relating to create infrastructure necessary for stepping up cropping intensities and productive levels in the backward areas.

Emergence of the New Economic Structure in India and its Impact on Employment Coefficients

Dr. Binayak Rath
Dr. K. K. Saxena

ABSTRACT

The Indian economy, no doubt, has undergone a number of structural changes during the last 40 years. These structural changes are generally examined in relation to contributions of the broad economic sectors on growth of GNP and value added; in terms of work force participation, in terms of most of the institutional changes. But on the other hand, due to technological innovations, the labour absorbing capacity of most of the sectors are declining over a period of time. As these changes offer a worrying signal for the planners and policy makers, there is a need to undertake an indepth analysis of employment-output relations (i. e., sectoral labour coefficients) in various sub-sectors of the Indian economy. Such an exercise would provide a good scope for analysing the role of various sub-sectors where there exist a relatively high employment potential or a poor employment potential. In this paper one such attempt has been made to estimate the labour coefficient for three different base years namely, 1979-80, 1984-85 and 1989-90, which are the terminating years of Fifth, Sixth and Seventh Five Year Plans respectively.

In order to undertake such an exercise, we have divided the Indian economy into 38 broad sectors and after examining the output and employment levels we have estimated the labour coefficients. Our results show that although the output and employment levels are increasing in absolute terms with a variation in different sectors, the labour coefficients are invariably decreasing over time. Such a trend implies that the labour absorbing capacity of the Indian economy would not change even with significant rise in the output level. Therefore our planned goal of employment generation will be jeopardised unless drastic policy changes are introduced in the economy.

While Section I of our paper deals with our objective, the general changes in the economic structure are presented in the Section II. In Section III we have examined the changes in occupational structures of the Indian economy and then established a need for the estimation of the sectoral coefficients. The Section IV deals with our methodology, the estimates, as well as the analysis of our results. In the concluding section we present our inferences that would be helpful for planning and

Sickness in Small- Industry Sector

—A Product of Development Strategy

Dr. R. K. Panda

From definition point of view there lies great divergence between small-scale industry of a developed country and developing country. Yet small-scale sector occupies a dominant place in both these economies in terms of production and employment generation.

India being a capital-scarce and labour-abundant economy, the small-scale industry sector is given an important place in its economic development from the point of view of social equity and providing employment opportunity. Accordingly different policies and programmes have been adopted since the beginning of planning to give support for its growth. As a result, the small-scale industry sector has shown impressive progress in terms of units, production, employment generation, exports etc. The number of units in this sector has increased from 10.76 lakhs in 1960-61 to 15.76 lakhs in 1987-88—a growth of 4277.77 per cent. In terms of value added, this sector contributes about 50 per cent of total manufacturing sector at the end of 1985-86. The number of persons employed in this sector has gone up by 169.52 per cent between 1973-74 and 1987-88 (from 39.7 lakhs in 1973-74 to 107.00 lakhs in 1987-88). The share of SSI in total exports has increased from 13.2 per cent in 1976 to 29 per cent in 1987-88.¹

With such remarkable progress this sector is plagued with a number of adversities. Sickness is one of them. As per the Reserve Bank of India data, as on 31st December, 1987, out of the total number of 15.76 lakh units in the small-scale sector, 2.04 lakh units (9.16 per cent) are reported to be sick.² In other words every eleventh SSI unit in the sector is sick. The worse is, not only the incidence of sickness is high in SSI units but also it is growing at a faster rate as compared to large and medium-scale industries. Between 1980-85, the growth in the number of units in the large-scale sector has been 55.74 per cent (from 409 to 636 units). During the same period the growth in sick units in SSI sector has been 408.80 per cent (from 23149 to 117783 units). Not only in terms of growth in number but also in terms of financial implications the sickness in the small-scale sector has been burdensome on the economy.

Because of sickness the outstanding bank credit in the small-scale sector has registered a rise of 250.13 per cent between 1980-85 while in case of large-scale sector it comes to only 121.98 per cent.³

It is obvious that sickness among industries is bound to exist in some form or other in any economic system. Particularly in a competitive economy, in the course of economic development inefficient units are to be displaced from the industrial scene by more efficient ones. But to what extent the shock of such phenomenon will be borne by an economy depends upon the growth rate of the economy itself. In a high growth situation industrial and restructuring adaptation can take place without perceptible ill-effects. But in a relatively slow-growing economy, any shift becomes painful and creates widespread distress and socio-economic problems. Particularly when sickness in industrial scene becomes both endemic and epidemic it poses serious challenges affecting the whole of the economy, in a number of ways. In the Indian context where growth rate has been 3.5 per cent between 1950-51 and 1980-81 with a population growth of 2.2 per cent during the same period and rising unemployment (annual growth rate being 11.7 per cent between 1961-81), growing sickness in industrial sector in general and small-industry in particular has caused rise in worklessness, barring aside other related problems. In an economy like India, a rise in worklessness leads to greater poverty and misery. In the words of Barbara Ward of all the evils, worklessness is the worst.

Sickness in small-scale units varies across the regions and across the products within a particular region. So any strategy needed to contain such malady must be region-specific and product-specific. However, in the context of growing sickness in SSI sector all over the country, a macro-level analysis of the problem is very much required to make policy formulations. In the present study an attempt is made to examine how our industrialisation itself has brought about sickness in the small-scale sector inspite of much rhetorics made in all the previous five year plans for its smooth healthy unabated growth.

Growth Theory Approach :

There are two sets of opinions about the pattern of industrialisation to be followed in a developing economy at the initial stages of growth. The first group emphasizes initial development of small-scale and cottage industries and later development of basic and heavy industries on the ground of paucity of resources and infrastructural bottlenecks.

second opinion argues for giving initial thrust to basic and heavy industries for making available high surpluses to be utilised in intermediate, light and consumer goods industries in the subsequent period. In the context of India, the pattern of industrialisation has mostly taken from the second opinion and there has been increasing allocation of resources for the development of basic and heavy industries. The plan- public sector outlay towards different categories of industries reveals that beginning with the First Five Year Plan there has been continuous rise in the percentage share of resources towards organised industry and mining and persistent fall in the resources of small-scale sector (Table-1).

It is stated that our approach to industrialisation through the development of heavy industries is based on the wide-ranging trickled-down effect of massive public sector investment on small and ancillary industries. The Mahalanobis model considered the development of SSEs as a source of an elastic supply of consumer goods to support development of basic and heavy industries. As such the Gandhian thought which emphasized the desirability of developing SSEs from social and employment point of view has been completely negated. The small-scale sector is encouraged to develop not out of its necessity for the economy but to hasten the process of industrialisation in the large-scale sector. The small-scale sector has become a follower rather than a pioneer in the Indian industrialisation.⁴

Weak Linkage Effect :

To make matters worse, it is stated that our industrial policy is very much ambivalent with regard to the linkage of small scale sector with the rest of industrial structure.⁵ In spite of the policy of ancillarisation as the main instrument of developing small-scale industries, the progress of ancillarisation has been very much limited. It is observed that hardly one per cent of the registered small units of the country is engaged in ancillary activities.⁶ On the contrary, most of the industries operating in small-scale sector are engaged in the production processes influenced by the availability of local resources. This limits the scope for healthy functioning of small industrial units.

Consistency in Policy Approach :

In all industrial policies beginning with 1948 specific pronouncements have been made for the development of small-scale sector. With industrial policies, a number of fiscal and financial incentives in the form

product reservation etc. have been adopted from time to time to achieve rapid and healthy growth of small-scale industries. But the impact of all such measures has not been significant. The fiscal and financial incentives have yielded poor results because of frequent changes taking place in the approach to industrialisation and larger countervailing forces acting against such measures in the economy.

It is well-known that in the year 1955, the Karve Committee in its report laid emphasis on a widely dispersed industrial structure with the small-scale and village industries remaining at the base level. But, even today the small-scale industries do not proliferate in backward areas. They continue to concentrate in a few cities and urban centres. And such concentration is accepted on the ground of reaping economies of agglomeration.⁷ More so, the protagonists of such an advocacy strongly argue for the location of small units in urban centres rather than in rural areas, as the income elasticity of demand for manufacture is higher with urban people than with rural. This has influenced the distribution of investment subsidy to different states and regions. It is seen that the central investment subsidy distribution is very much biased towards developed States as against the backward States. In case of Orissa upto 1986 the distribution of capital investment subsidy was biased towards forward districts as against the backward districts.⁸

To make matters worse the various fiscal concessions particularly tax-reliefs very often cause disincentive effect on the small entrepreneurs. To avail the advantages of fiscal concessions the small units deliberately do not want to cross the size barrier and very often prefer to divide the scale of operations into a number of small firms. As a result a number of ghost units enjoying the governmental concessions emerge and become liable on the government exchequer.⁹ Thus, sickness in small-scale sector persists and goes on increasing year after year.

In many cases there happens clash between the positive measures taken by government in the small-scale sector and general economic measures. On a number of occasions there has been legislative as well as administrative measures of the government to enhance the wage-rate of industrial workers. Politicization of labour has made it more irresponsible and less efficient resulting in a downward slope of labour productivity.¹⁰ Long back Prof. Mahalanobis stated that in India the difference between wage rate of an average worker and his marginal product is one of the highest in the world. Taking into account various developments in recent years this statement seems valid even to-day.

To sum up, sickness in industries whether it is in the large-scale or in the small-scale sector will be there due to structural changes in the economy. But the worse is, in a country like India where nearly 37 per cent of the population are living below the poverty line and there is large-scale unemployment, and underemployment the continuance of sick units and their multiplication year after year in the small-scale sector will have a heavy cost to the economy. To bear the burden of sick units and social compulsions does not solve the interest of the economy in the long-run. The negative economic implications of fostering sick units cannot be realized. Abid Hussain, the former member of Planning Commission once remarked that concessions and protections must be made available to the SSI sector in deserving cases and that too only till they are necessary and needed. In this context necessary policy measures must be formulated to make cost-effective calculation of sick units and where such units do not fulfil the usual norms their closure should not be delayed on any account. This will make available our country's resources (man as well as material) to be utilised in better productive ways.

**Public Sector Outlay on Industry in
different Plan Periods.**

(Rs. in crores)

Plan	Organised Industry and mining	Village and Small-scale Industry	Total
1st Plan	55 (56-70)	42 (43-30)	97 (100)
2nd Plan	938 (83-37)	187 (16-63)	1125 (100)
3rd Plan	1726 (87-74)	241 (12-26)	1967 (100)
4th Plan	1510 (92-29)	126 (7-71)	1636 (100)
5th Plan	2864 (90-89)	243 (9-11)	3107 (100)
6th Plan	8989 (93-82)	592 (6-18)	9581 (100)
7th Plan	27292 (93-34)	1945 (6-66)	29237 (100)
8th Plan	39736 (93-52)	2753 (6-48)	42489 (100)

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Industrial Sickness and the Commercial Banks :

An Anatomy of Problems and Prospects

S. N. Misra

Introduction :

Growth and expansion of small scale industries received utmost attention with the beginning of the Second Five Year Plan (1956-61). Development of small scale industries was considered essential for various reasons. First, with the development of small scale enterprises there will be an increased flow of consumption goods in the economy. This will help to reduce the gestation gap caused by heavy investment in large scale heavy industrial sector. Since there is a gap between initial investment and final outcome of the products, there will be large scale demand for consumer goods in the interim period. Small scale units are, therefore, considered essential on this ground as they undertake the responsibility of supplying consumption goods to meet the growing demands of the people. Secondly, the development of small scale units is supported on the ground of its contribution towards generating employment opportunities. Thirdly, the small scale units make use of locally available scarce resources and this helps to conserve scarce foreign exchange of our country. Finally, they are low capital using and high labour absorbing enterprises. It is for all these advantages that small scale units have received utmost attention in almost all the plans.

Growth of small scale units :

In consequence of the national goals and objectives relating to small scale industries, the State Government, too, put more emphasis on the development of small scale units with the beginning of Second Five Year Plan in the State. Since then the development of small scale industries is quite spectacular. It is observed that during 1980 to 1988, the number of small scale units increased from 9119 units to 31,724 units in the State. This shows that over the period the number of small scale units has increased by 248 per cent. During the said period capital investment increased from Rs. 6895 lakhs to Rs. 36,643 lakhs, an increase of 430 per cent. Likewise, employment generated

an increase of 223 per cent over the period. Thus quantitatively the expansion of small scale units in terms of number of units, capital investment and employment generation is quite encouraging.

Magnitude of Sickness among small scale units :

However, all the small scale units established in the State since Second Five Year Plan do not have a promised longevity. In course of time most of the small scale units became sick units. It is observed that the number of sick small scale units has gone up from 842 units in 1980 to 9125 units in 1988. This shows a rise of 991 per cent. The increased sickness among small scale units, thus, becomes a cause of deep concern.

A normal or healthy unit is one where all the functional systems and sub-systems are working efficiently. These functional systems are : financial, production, marketing and personal. Disorder in any one of the functional systems leads to sickness of enterprise. Among the functional systems, financial system occupies a pivotal position in the operational structure of an enterprise. Accordingly industrial sickness arising out of financial disorderliness is considered to be of paramount importance.

Small scale units require two types of capital : Working Capital and Block Capital. Working capital is mostly procured by small scale units from commercial banks. This working capital from banks is available to the units for a period upto one year. The block capital requirement of small scale units is met by term financing institutions like I.D.B.I. and F.C.I. etc. Block capital is usually given for longer periods i.e., upto 20 years. Small Scale units receive bulk of their working capital needs from commercial banks. This type of capital is required for building up of inventories and for meeting current firm expenses.

In the past commercial banks did not supply any amount of credit to small scale units. They considered small scale units as risky propositions. The organisational structure of the commercial banks was not adaptive to the requirements of small scale enterprises. Lack of experience and shortage of staff were the main factors responsible for the inadequate involvement of commercial banks in small scale sectors. Even the Reserve Bank of India also expressed its inability to finance the small scale units.

It is after the nationalisation of banks in 1969 that the

required to provide 40 per cent of their total bank credit to the designated priority sectors. Of the priority sector advances, again they are required to channelise 16 per cent of total bank credit in favour of the small scale sector. The banks are required to supply credit at the rate of 12 per cent per annum to small scale units. Furthermore, in order to render adequate financial assistance to small scale units, the security norms are also relaxed by the banks. Hypothecation of stocks of inventories and assets created out of bank funds are now considered suitable forms of securities for supplying funds to the small scale sector. The emphasis is now shifted from security oriented credit to need based credit. The ability and capacity of enterprisers to use bank funds productively for the purpose for which the loan is granted are considered as a suitable guarantee for providing loans to small scale borrowers. On account of these policy changes the supply of credit to small scale units has gone up quite considerably. It is noticed that the supply of bank credit to small scale units which stood at Rs. 182 lakhs in 1969 increased to Rs. 4677 lakhs in 1983, an increase of 26 times over the period.

However, all the bank funds supplied by commercial banks were not productively used by small-scale units. On account of the growing sickness among small scale units, quite a sizeable proportion of bank funds was locked up in these units. It is observed that the amount of bank funds locked up in sick small scale units which stood at Rs. 20.34 crores in 1983, increased to Rs. 33.41 crores in 1988. Over the period the amount of bank funds locked up in small scale units increased by 64 per cent. This may be observed from the table given below.

Table-1
Amount of bank funds locked up in small scale units :
1983 to 1988.

Year	No. of Sick units	Amount outstanding (Rs. Crores)	Average amount of outstanding Advances per sick unit (in Rs. Lakhs)
1983	2135	20.34	0.95
1984	3432	24.12	0.70
1985	5299	29.49	0.55
1986	6489	26.14	0.40
1987	8692	35.39	0.40
1988	9125	33.41	0.36
Percentage variation in 1988 over 1983.	327.0	64.2	-62.1

Source : EIS, Centre For Monitoring Indian Economy, *Basic Statistics Relating to Indian Economy, Vol : II* (States) Sept. 1990, Table-9.13.

The table indicates that during this period between 1983 and the number of sick small scale units and amount of bank funds locked in such units have gone up quite considerably. It is against this background that an humble attempt is made to study the problem of industrial units and the role of commercial banks in solving the problem of these units.

Objectives of the study :

The study broadly covers the following objectives : (i) To delve into the causes affecting the sick units in the small scale sector, to study the effect of industrial sickness upon commercial banks, to analyse the measures adopted to rehabilitate the sick small scale units.

Methodology of the study :

With regard to the methodology of the study, the study is undertaken both with the help of Macro and Micro data and information. In macro analysis, reliance is heavily placed upon available standard literature and on government publications and reports. For Micro study, sick small scale industrial units operating in Berhampur Industrial Estate are taken into consideration. In Berhampur Industrial Estate there are 54 industrial sheds. About 44 small scale entrepreneurs have occupied these sheds for running their enterprises. As on March 1990, 33 units are functioning in the Industrial Estate of Berhampur. Of these functioning units, 18 units are sick industrial units as identified by District Industries Centre, Berhampur, and 11 Units are closed down units. The remaining four units are the only survival units. For purpose of analysis, data have been collected from sick industrial units belonging to different categories of industries like, agro-based, wood and forest based, engineering and metal based, glass and ceramic and electrical and electronics etc.

Definition and Meaning of Industrial Sickness :

A sick unit is defined as "a unit which has incurred a cash loss for the last one year and in the judgement of the bank is likely to continue incurring cash losses for the current year as well as following year and the unit has in balance in its financial structure such as current ratio

total outside liabilities to the net worth".¹ This is definition which has been adopted by Reserve Bank of India.

However, two important drawbacks are noticed in this definition. First it laid emphasis on cash losses. In the longterm perspective one cannot afford to ignore non-cash expenses to determine the economic viability of a unit. Second, it also laid emphasis on non-payment of interest/instalments and persistence of irregularity in the account which may not necessarily arise on account of sickness. No distinction was made between defaults on account of sickness or otherwise.

Accordingly, R.B.I. suggested a modified definition of sickness in 1989. According to 1989 definition, unit should now be considered sick if it has at the end of any accounting year accumulated losses equal to or exceeding 50 per cent of its peak networth in the immediately preceding five accounting years. However, if financial position is difficult to obtain a unit may be considered sick if it defaults continuously for a period of one year in the payment of interest or instalments of principal and there are persistent irregularities in the operation of credit limits with the banks. Industrial sickness is thus the outcome of financial disorderliness in small scale enterprises.

6. Causes of Industrial Sickness :

Sickness in the small scale sector is caused by both internal and external factors. Among the internal factors the most important are; improper project appraisal and planning, excessive holding of inventories of rawmaterials, higher level of work in progress and finished products, tardy realisation of bills, cash losses, diversion of shortterm funds to fixed assets, productive and non-productive diversion of funds to associates and sister concerns, marketing and managerial problems etc.

Among the external factors, government policies regarding prices and distribution, sudden and wide fluctuations in the demand for the product, shortages and irregularities in the availability of rawmaterials, power and transport, continuous rise in the cost of production and the prices of inputs, inability to execute the project according to schedules are considered as the major problems.

Among the various factors responsible for industrial sickness in sick industrial units of Berhampur Industrial Estate, shortage of

working capital supplied by commercial banks, faulty project appraisal and project planning, marketing problem, frequent breakdown of machines and machineries, lack of skilled manpower and labour unrest in industrial units are cited as the main internal causes for industrial sickness. Likewise, the external factors responsible for sickness in sample selected units are: shortage of rawmaterials, shortage of power, lack of transport and communication facilities, competition from outside entrepreneurs and rise in the price of inputs etc.

1.7. Analysis of the data and the major findings :

It is observed from the study that 10 out of 18 units reported about the shortage of working capital as the main cause of industrial sickness in the industrial estate. In terms of percentage this is 55 per cent of the total sick units. Again, 3 out of 18 units complained about faulty appraisal and planning as the sole cause of their sickness. In terms of percentage this is 17 per cent of the total. Likewise, 2 out of 18 units each reported about poor marketing facilities and labour indiscipline as the main cause of sickness. Percentwise this is 11 per cent of the total in each case. Only 1 out of 18 units reported about the breakdown of machines and machineries as the sole cause of their sickness. This is 5 per cent of the total. It is further mentioned that 14 out of 18 units reported more than one cause of the main factors for industrial sickness. In other words 78 per cent of units reported industrial sickness due to more than one cause. The chief causes are: shortage of working capital, marketing difficulties and inadequate project appraisal etc. Among the external factors, 13 out of 18 units reported shortage of rawmaterials, powercut, lack of transport and communication facilities as the sole causes of sickness. Percentage wise, this is 72 per cent of the total. Besides 3 out of 18 units reported hike in the prices of inputs as the sole external factor for their sickness. Percentage wise this is 17 per cent of the total sick units. However, 2 out of 18 units suggested that competition from outside entrepreneurs as the sole cause of their sickness. This is 11 per cent of the total. It is observed that industries confronted with more than one external factors accounted for 67 per cent of the total number of sick units. It is, thus, clearly evident that industrial sickness is primarily due to internal factors aggravating sickness among units in industrial estate.

Effect of Industrial Sickness upon Commercial Banks :

The commercial banks are seriously affected due to growing sickness of industrial units in the small scale sector. The banks find quite a substantial amount of money being locked up in sick industrial units. For banks, recycling funds is the primary concern. However they come across with a situation where substantial amount of scarce resources which otherwise would have been utilized productively elsewhere, were necessarily locked up in certain industries suffering from sickness. This has affected their profitability and productivity to a great extent. Besides, they come across with embarrassing situations, when sick units do not pay instalments regularly. Very often they are pressurized for changes in repayment schedules, repeated pleas for the enhancement of the borrowing limits, request for frequent overdrawal of accounts in the absence of any balances in the accounts of industrial concerns and regular submission of bills for discounting purposes etc. This creates serious organisational and operational problems in the commercial banking sector.

Banks, too, are also responsible for growing sickness, supply of credit is necessary but certainly it is not an essential condition. The most important task for the bank is to gauge the end use of credit. The banks must see that loans given for the purpose are fully utilized for the purpose for which it is given. This calls for monitoring and management of sick units. Right from the sanctioning of credit till its growth and revival, the commercial banks need to be associated with nursing, developing and promoting the enterprises.

In terms of various indicators of industrial sickness such as: Profitability ratio, solvency ratio, liquidity ratio and turn over ratio,* it is noticed that almost all the units have exhibited negative signs. Only one out of 18 units has shown improvement in the profit margins in the recent years. But its performance with respect to other indicators of sickness is not encouraging.

Indicators of Industrial Sickness

- (i) Profitability Ratio : Cash flow to net sales (cash flow Ratio)
Net income to net sales (income Ratio)
- (ii) Solvency Ratio : Total tangible assets to total debt

Sickness is of three types : born sick, made sick, and incipient sickness. There is need for restoring units suffering from incipient sickness. The symptoms are frequent overdrafts by the unit, irregularity in the cash credit accounts, slow turnover in accounts, return of cheque drawn by the borrowers, increase in intangible expenses, insufficient provision for depreciation, bad and doubtful debts, delayed payment of credit and advances, heavy rejection of stocks despatched, slow movement of stocks, defaults in the repayment of instalment of principal and rate of interest.

1. 9. Rehabilitation of Sick Units:

Proposed Measures :

Viable units need be rehabilitated and units which are non-viable and whose sickness cannot be cured must die a natural death. Rehabilitation of sick units is a combined effort of government, financial institutions and the entrepreneurs suffering from sickness. However, the responsibility of financial institutions in general and the commercial banks in particular is more important.

It is observed that commercial banks need to carry out viability studies and nurse sick units which are considered potentially viable. They are also required to draw up rehabilitation programme in respect of the potentially viable units on a case by case basis. This includes financial concessions like waiver of penal interest, reduction of interest rate and margin money, rescheduling the over due liabilities for recovery in a phased manner depending upon the cash generation, grant of need based working capital and term loan facilities and other measures like changes in management, proposal of merger with healthy units. Banks and institutions need to nominate directors on the board of the assisted companies in terms of provisions of the loan agreements for the purpose of ensuring the conduct of the affairs of the unit in accordance with sound financial principles. In cases where the attempts of banks/institutions in nursing such units fail and also in cases where units are considered non-viable, they may safeguard their interests by recalling the advances, enforcing the securities and filing legal suits.

1. 10. Conclusion :

Small scale industries have developed phenomenally in the State. But the sickness among small scale units has also equally grown up considerably. Though there are many factors, sickness is mainly due to

of problems. They find their scarce loans locked-up in sick units. Besides, it also creates organisational and operational problems. Incipient sickness can be cured. Rehabilitation programmes can be undertaken by banks to restore sick units to normal health. Besides they can also nurse the units after revival. If combined action is taken by all, government, commercial banks, financial institutions and entrepreneurs sickness can be removed.

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Sickness In Hospitality Industry of Orissa

—Application of Gronroos Model

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The Hospitality Industry, by nature and structure, is international. It is multidimensional and worldwide in its operation and versatile in its objectives. The scope of its earnings is vast. It can function in the smaller settings as effectively and efficiently as in the wide ranging regional and multinational operations. It has flexibility of adjustment to situations which few other economic activities possess. Hospitality industry is no longer viewed as a peripheral or luxury oriented activity, but an integral part for the business class and richer class of the society. The ramifications of hoteliering and related activities has reached out to many sectors of the economy. In fact it is a very crucial resource generating activity. Its role in pushing up the pace of economic development of a backward region is very significant (Danielson 1987). The full effect of hotel operations on regional and national economy consists of direct, indirect and induced effects, the size being determined by the magnitude of demand for hotel services. (Das and Mohanty, 1991).

Demand for hotel services is largely determined by the amenities and quality of its services, upon which the profitability of a hospitality firm largely depends. Quality of service is the crucial determinant of the volume of sales of a hotel. If any establishment of the tertiary sector aims to seek out a higher profitability, higher sales then it must pay close attention to improve the quality of its services. The technology of the hoteliering organisation is conceived as "knowledge technology", as opposed to manufacturing technology where output is physically measured. In this regard the service technology consists of ideas, goals and rationale for the methods adopted. Hence, the hospitality industry must emphasise quality but not merely quantity. In view of the rich tourist attractions and potentials, the tourism industry of Orissa should actively market its product. Marketing its product is simply attuning the hospitality offer to the wishes and

consumer. Perceived quality of any service depends upon two variables—expected service and perceived service. Service quality can have two dimensions:

- (a) technical quality
- (b) functional quality.

The technical quality lends itself to somewhat objective measurement by the customer. It is what the guest receives. It could be a hotel, a room, a bed, a meal etc. Functional quality on the other hand presents the service process or the expressive performance of the service. This quality is perceived by the customer in a very subjective manner (Lewis et al, 1986). Together, the technical quality and functional quality of the service represent a bundle of service dimensions and create an overall feeling or an "image", which influences the customers' expectation and which overrides the substandard technical and functional quality delivery.

Objectives :

The paper attempts to measure the nature and degree of service quality gap in the hospitality industry of Orissa by adopting the Gronroos (1984) and Parsuraman (1988), (G P) model. It seeks to unravel the mysteries of the fact as to why some firms are successful and others are not.

Service quality gaps in the Hospitality Industry :

There exists a considerable amount of difference in perceptions between customers and providers, usually which comes as a surprise to the management of the hotel concerned. There are various evidences that management perception of quality of service frequently differs from the perception of customers, colleagues and hotel staff even. This difference in perception is termed as "service gap". Here an attempt has been made to undertake an exploratory qualitative study to investigate and conceptually define service quality. Four different service categories are investigated to gain insight into:

- what managers perceive to be the key attribute of service quality.
- what customers perceive to be the key attributes.
- whether discrepancies exist between these two perceptions.
- whether these results can be utilised to establish a general model to

The model developed by Gronroos has been simplified and fitted the data obtained from upper managerial personnel of 18 hoteliering ns, six hotels each from high spending category, medium spending category and low spending category existing in the cities of Orissa. A survey was made as to what the management believes their customers' expectations in selecting a hotel, their perception of their own hotels' service delivery, what customers particularly like and dislike about their hotel and the overall fulfilment of expectations and satisfaction with their hotel in view of customers who had spent room-rights there. The same questions are asked at 200 randomly selected customers staying in those hotels over a period of two weeks, during the month of January 1991. Out of 200 customers, 93 were foreign tourists. Both management and customers are asked to evaluate sixteen attributes on a 5 scale where 5 represent the highest rating. T-tests are used between each pair of attributes that represented a potential for service quality gaps. Mean score and significance levels are represented in table 1.).

1. Government	4.17	4.15	3.8	3.81
2. VIP treatment	4.06	4.25	3.75	3.43
3. Room quality	4.23	4.21	3.83	4.07
4. Bedding/dining	4.32	4.13	4.21	3.94
5. Room service	3.86	4.11	4.23	3.75
6. Room location	3.77	3.18	3.05	3.19
7. Room size	3.36	3.23	3.24	3.22
8. Room view	4.25	4.23	4.23	4.23

Six hotels from Bhubaneswar, 3 hotels each from Cuttack and Puri and 2 hotels each from Rourkela, Sambalpur and Berhampur are

Table-1.1 Gap mean difference and their significance in the service quality model.

Service Attributes	Means ¹				Gaps ²				
	α_1	α_2	α_3	α_4	β_1	β_2	β_3	β_4	β_5
Location	4.33	4.31	4.21	3.87					
Price	3.90	4.00	3.20	2.67	*	***	**	*	
Room size	3.32	4.10	3.25	3.77	***		**		*
Cleanliness	4.00	4.30	4.05	4.78	*	*		*	
Modernity	3.05	3.40	2.74	2.37	**	***	*		
Service Variety	4.09	4.16	4.21	3.65	***	**			
Promptness	3.43	4.00	3.58	4.00	***				***
Professional staff	4.30	4.58	3.89	4.48		**	**		
Convenient reservation	4.17	4.15	3.78	3.81					
VIP treatment	2.96	4.26	3.75	3.43			***	*	*
Food quality	4.23	4.84	3.83	4.07			*	*	*
Eating/drink-ing options	4.32	4.74	4.21	3.94	***		*	*	**
Room service facilities	3.86	4.47	4.38	2.25	*	*		*	**
Shops in Hotel	2.77	3.18	2.95	2.19	***	**		*	
Night life entertainment	3.36	4.53	3.44	2.22	*	*	*	*	*
Security/quitness.	4.45	4.33	3.89	4.42		**	***		

tes : 1. Attribute means on scale of 1 (low) to 5 (high)

α_1 —Management's perception of consumers expectations

α_2 —Managements perception of its service delivery

α_3 —Consumer's perceived service

α_4 —Consumer's expectations

2. * t-test two tail probability < 0.01

** t-test two tail probability < 0.05

*** t-test two tail probability < 0.10

Four types of gaps are found as shown in the table (No. 1) ($=\alpha_1\alpha_4$) represents the gap between management's perception of consumer's expectations (α_1) and consumer's expectations (α_4). $\beta_2(=\alpha_3\alpha_4)$ presents the gap between consumer's perceived service (α_3) and consumer's expectation (α_4). $\beta_3(=\alpha_2\alpha_3)$ represents gap between management's perception of hotel service delivery (α_2) and consumer's perceived service (α_3). $\beta_4(=\alpha_2\alpha_4)$ represents management's perception of hotel service delivery (α_2) and consumer's expectation (α_4). Lastly $\beta_5(=\alpha_1\alpha_2)$ presents the gap between management's perception of consumer's expectation (α_1) and management's perception of its service delivery (α_2).

Conclusion and Suggestions :

The above exercise reveals that there exists wide variety of gaps in the service quality, which constitute the main reason of low occupancy and low profitability and sickness of the Hospitality Industry. Hence in order to improve the situation and raise the occupancy level, the hotel industry should adopt following two steps :

- (i) GO system and
- (ii) Positioning Analysis.

GO system refers to a system which generates opportunities or new facilities for the consumers. With increased competition, evolving technologies and changing market needs, food services and lodging concepts are becoming gradually outdated or obsolete than ever before. The need, preference and demand of business travellers and tourists are fast changing and are likely to change dramatically in the coming years. Attempts to adapt these changes should result in wide variety of trends, like, menu diversification, fast food service, computerisation of the front desk, audio-visual entertainments, specialised conference halls and ceremonial lounges etc. Unless the firms keep abreast of the changes in the market place and manage to generate appropriate opportunities that satisfy consumer needs and anticipate their wants, they risk losing any competitive advantage they might have enjoyed or could have attained. Therefore the Hospitality firms should have sound GO system and ingenious planning.

The most successful way of meeting the future demand is 'Positioning' and increasing 'segmentation', which is an effective means of having a sustainable customer base. With the fast changing service attitudes of the customers, the hotel industry should adopt a

business strategies. The formulation of policies for the Hospitality industry requires detailed information on the temporal characteristics of visitors flows in relation to the capacity of the industry to accommodate them. The operator must make three decisions : (a) strategic decision, (b) administrative decision and (c) operational decision during the course of each day and week in order to ensure optimal occupancy level. A true successful entrepreneur is he who can juggle his responsibility to have high occupancy and profits today with the perceived service quality that ensures continuing profits and higher occupancy level tomorrow. Thus in hotel operation it is necessary to combine the production element of the speedy and efficient provision of accommodation and food and beverages with human element of a high standard of service and an attitude for that from the Hotel staff. This suggests a need for team work and for a participative style of managerial behaviour based on the effective integration of a high concern for production balanced with high concern for the customers.

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An Assessment of the Growing Menace of Industrial Sickness in Orissa

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Introductory Remarks:

Industrial sickness is a phenomenon concomitant of the very process of industrialization in which well-managed and efficient units grow, while ill conceived and inefficient units languish and gradually disappear from the industrial scene. In any economic system, it is quite natural that the inefficient units have to give way to the efficient ones to grow. But over the past few decades the problem of industrial sickness has not only worried the Govt., policy makers, industrialists and workers, but also it has attracted a lot of academic discussions and policy prescriptions. It is imperative to note in this context that, it is not industrial sickness per se that has really worried the planners, rather, it is its growing magnitude that has called for a close analysis and discussion.

The Recent Scene of Widespread Industrial Sickness in Orissa :

The problem of industrial sickness is widespread in Orissa. As at the end of June 1986, not less than 25 per cent of the units under the IPICOL umbrella were sick. There are also a few important units in the large scale and medium scale sector such as the Sewa Paper Mills; Orissa Sponge Iron Limited; S. N. Corporation etc. which are sick due to various reasons. A little reflection will reveal that industrial sickness is more serious in the Small Scale Industry (SSI) Sector in Orissa. According to one estimate made by the O. S. F. C., there were 985 sick units during 1986-87 and 1269 during 1987-88 which further increased to 1275 in 1988-89. The figure went upto 1331 as on dt. 18. 2. 1990 out of which only 639 units lacked viability.

As adequate and reliable data on the units belonging to unorganized sector are not available, it is very difficult to find out the extent of

ness in this sector. But, if the experience of the organised sector is guide for us, then quite a big chunk of the units belonging to the organized sector is also sick.

Role of the Government in the Rehabilitation Programme of sick units:

The rehabilitation programme of the sick SSI units in the State is far from satisfactory. As per the statistics made available by the Directorate of Industries, Govt. of Orissa, out of 1485 sick SSI units identified as sick as on dt. 31. 3. 1988, only 88 units have been granted margin money assistance, 9 units have been given equity/soft loan assistance and 49 units have been revived entirely.

In a State like Orissa, where industrialization has been promoted under the State patronage, increasing magnitude of industrial sickness has both growth and welfare implications. Several things are at stake when an industrial unit becomes sick. The workers are thrown out of their employment, the share-holders incur heavy loss, the Banks/Financial institutions do not get back their loans and the national product gets sunk leading to a chain of unhealthy economic effects culminating in a low standard of living of the citizens. Moreover, the budding entrepreneurs get demoralised. This may have disastrous and adverse repercussions for further industrial and economic development.

Rationality dictates that the units which are not commercially viable must be allowed to die. "It is better that sick industries allowed to die rather than put on oxygen to wither away slowly". On the other hand, social considerations demand that all out efforts should be made to revive the sick units so that the capital sunk in these units is not lost all times to come. Further thousands of people are not thrown out of their employment and deprived of their daily bread. Under such a situation, it is very difficult to devise a policy relating to industrial sickness. However a lot of policy measures have been taken since late 1970s, when industrial sickness first appeared as a problem.

These policies can be grouped as curative, preventive and rehabilitative. Reckoning that a number of measures have been taken to revive the sick units, an FICCI study pointed out that they have by and large failed. The important causes of failure are discussed below.

First, every rehabilitation programme of sick units must be backed by a time bound action plan. This crucial aspect has been missing in most of the relief packages that have been put forward in the recent

past. For the time being the crucial factor, in the absence of immediate and timely action, the initially manageable sickness gradually intensifies into a major one thereby grinding a halt to the operations of the affected units.

Second, in a State like Orissa where 99 per cent of the SSI units belonged to the tiny sector, no relevant methodology of studying the problem of sickness in this sector and feasible solutions have been worked out for them. What appears to have been happening is that while emphasizing the SSI sector, the dissimilar context, in which the tiny and big SSI units operate has not been taken note of. As a result, the methodology and the set of prescriptions for reviving sick units remain the same for all size/classes of small scale units. This seems to be the basic flaw in the methods adopted by the Government to combat sickness in this sector. As a result, the incidence of sickness in the SSI Sector in Orissa remains unabated.

Third, if the past experience is any guide, it is evident that ad-hoc measures and piecemeal cures are not the answer. An industrial unit operates under a different set of economic conditions in industrially backward States like Orissa. So the methodology adopted in the identification of a sick unit in Orissa should differ from the units in other advanced States. The official definitions are only the financial parameters for identifying a sick unit. But a combination of both financial and non-financial parameters like availability of technical know-how, production-cost ratio, state of technology etc. would prove to be a better indicator of industrial sickness.

Summary and Conclusion :

In the context of capital deficiency and widespread prevalence of unemployment in Orissa, closure of sick units should not be tolerated. Every possible effort has to be taken into account so as to revive the sick units. Besides, due to paucity of funds at our hand, the rehabilitation efforts need to be less of financial nursing and more of structural transformation.

The interests of the workers thrown out of employment due to the closure of the non-viable units for all times to come must be borne in mind. Besides specifying guidelines on liquidation of assets to pay off labour and adequate compensation given in the event of retrenchment, Government must also evolve a policy whereby the same industrial unit provides retraining facilities and is asked to retire the labour into new ventures.

In any modern industrial activity, power is the key input. But the power position in Orissa is very grim. Orissa's over dependence on hydro-electricity power projects accounting for 62 per cent of the total generating capacity in Orissa—has made it extremely vulnerable to power crisis in periods of drought. Considering the fact that the addition to the existing capacity of electricity generation in near future is quite weak, the proposal of developing consumer electricity co-operatives will definitely help in the conservation and effective utilization of the existing power generation. A local consumer electricity co-operative is very likely to implement effectively such measures as rationalization of demand patterns, a more even spread in the periods of the day. The non-conventional sources of energy may be exploited.

Most of the industrial units in the SSI Sector suffer from mis-management and inadequate management. Therefore, it is very much essential to train the management in the right lines. Adequate training could be imparted for the growth of entrepreneurship.

Finally, it has been rightly complained that the Indian bureaucrats often take more than two to three years to say a mere 'No' to the growth of new industrial enterprises. Delays and cost over-runs due to such administrative lacunae as corruption and red-tapism very often drive a healthy unit into sickness. So, all out efforts have to be taken to check corruption that has penetrated into industrial enterprises and diversion of loans there to.

Industrial Sickness in Ganjam District

—A Case Study

Dr. K. Nana Buchi

and

Sri Parameswar Seth

The district of Ganjam has assumed a significant position in the State in industrial development of small scale units. Prior to 1973-74 there were only 273 small scale industries in the district. The number increased to 3764 units by 1989-90. These industries provided employment to 23,566 persons with a capital investment of Rs 3565.52 lakhs. Between 1973-74 and 1989-90 there has been an appreciable growth of small scale industries in the district (Table-1).

Table-1

Quantitative expansion of SSIs in Ganjam
between 1973-74 and 1989-90

Year	No. of industries	Capital investment (in lakhs)	Employment generated
Upto 1973-74	273	146.46	1837
74-75	45	27.48	309
75-76	110	51.01	1040
76-77	91	20.67	411
77-78	101	31.10	425
78-79	126	44.36	734
79-80	267	89.08	1368
80-81	230	129.90	1495
81-82	245	162.38	1704
82-83	311	233.38	1880
83-84	321	331.21	2908
84-85	286	236.23	2070
85-86	388	359.87	2312
86-87	298	371.87	1745
87-88	266	401.96	1179
88-89	202	459.51	1064
89-90	202	409.05	1085

Source—D.I.C., Ganjam, Berhampur

In addition to the small scale industries, the cottage industries, handicrafts, Khadi and village industries and Panchayat Samiti industries form a substantial part in the industrial development of the district. The district of Ganjam is famous for handicrafts like horn-works, brass and bell metal products, applique works, wooden carpets, cotton carpets, 'Khadhi', toy-making, etc. Table-2 depicts the number of different industrial co-operatives under village industries, handicrafts, panchayat samiti industries, salt industries and coir industries functioning in the district by 1989-90.

Table-2

Number of different industrial Co-operative
Society of Ganjam, 1989-90

No.	Name of the Industrial Co-operatives 2	Membership 3	No. of Co-operatives		
			Active	Sick/ Moribund	Total
1.	Village Industries	11,685	68	136	204
2.	Handicrafts	844	12	14	26
3.	Panchayat Samiti Industries	545	10	2	12
4.	Salt Industries	2,308	5	7	12
5.	Coir Industries	211	4	--	4
6.	Other Industrial Co-operatives	231	5	4	9

Source-D.I.C., Ganjam (Figures compiled).

There are 8069 cottage industries functioning in the district by 1989-90. They provided employment to 15,667 artisans with an capital investment of Rs. 233.66 lakhs. Of the 8069 units, village industries are 204, handicrafts 26, modern crafts 425 and 3035 are under tertiary sector.

All the above shows that the district of Ganjam is industrially developed like other developed districts of the State. Yet the study reveals that many of the small scale units are either sick or defunct for various reasons. Table-3 gives a picture of the sick industries under SSI and other industrial co-operatives.

Table-3

Number of Sick industries and SSI Units,
in Ganjam, 1989-90:

Category	No. of sick units	No. of units revived	No. of units to be revived	Package under Preparation for revival	No. of Units can not be revived
2	3	4	5	6	7
Food & Allied products	43	13	—	3	27
Chemical & Allied Products.	18	4	1	—	13
Glass and ceramics	9	4	—	1	4
Textiles	6	—	—	5	1
Electrical & Electronics	6	—	—	3	3
Forest & Wood based	5	—	—	2	3
Plastic and Rubber products	2	1	—	—	1
Engineering metal based	24	7	3	4	10
Paper & paper products	7	—	1	2	4
Miscellaneous based	10	2	2	1	5
Total	130	31	7	21	71

Source — D. I. C., Ganjam (Figures compiled).

Causes of sickness :

The following are the important causes of sickness in S. S. I. units and other industrial co-operatives of the district :

Marketing of products is one of the most acute problems that S. S. I. units, tiny and cottage industries are facing today. As no proper market surveys are conducted before the establishment of the units,

Most of the units are sick due to increase in the cost of production because of lack of proper cost analysis.

The small units do not have any proper advertising and publishing media to popularise their products within their proximity.

Lack of attractive packing and distribution channel hamper in marketing the products of small industrial units.

In addition to the marketing, finance is another important reason for the sickness.

The artisans borrow funds to run the units from non-institutional sources at higher rate of interest. This leads them to deeper troubles.

Khadi and Village Industrial units, Salt and Coir units run on co-operative basis. Mostly they are being managed by the local artisans who are lacking in technical and managerial ability and experience (except, of course, the P. S. I. units which are managed by the departmental managers.)

Traditional method of production of the small units fails to attract the consumer's demand.

Many entrepreneurs start enterprises with high ideas. They do not maintain financial discipline and keep high overhead costs. They do not hesitate to borrow at high rates of interest and do not care to economise costs. Further more, they fail to repay the borrowed funds in time. Therefore, debt goes on accumulating. Hence, non-observance of the basic principles of business management leads to sickness.

In addition to the above reasons, lack of working capital, non-availability of raw-materials, under utilisation of the capacity, labour problems and competition, lead to sickness in the small industrial units of district.

Measures taken to cure the sickness :

The D. I. C., Ganjam, Orissa State Financial Corporation and commercial Banks have taken various remedial measures to cure sickness, to revive the sick/defunct units and also to prevent sickness.

Of the total number of 3764 units the sick SSI units come to 130.

units have been declared as "cannot be revived" by the D. I. C. Preparations are in progress for the revival of 20 more units by giving package assistance. The Orissa State Financial Corporation provided Rs. 253.02 lakhs as term loans and Rs. 86.28 lakhs were given by the different commercial banks as working capital for the revival of the sick SSI units.

For the revival of the Handicrafts Industrial Societies, the D.I.C. also provided share capital of Rs. 47.3 thousand for purchase of machines and construction of buildings, etc., to the societies and Rs. 68.5 thousand as managerial subsidy to meet the financial expenses of the staff.

To remove the problem of marketing of SSI units, the quality control measure and E. P. M. rate contract for the products of SSI units are taken up by the directorate of E.P.M.

The Orissa Small Industries Corporation has a branch at Berhampur to provide scarce raw materials like iron and steel, caustic soda, zinc, plastic granules, paraffin and match wax to the S. S. I. units.

29 Artisan multipurpose co-operative societies in all the 29 blocks of the district and one Gramodyoga Marketing Co-operative society of the district level have been established to help the artisans of cottage industries, handicrafts and khadi and village industries in the sphere of marketing their finished goods.

As a revival measure the D. I. C. conducted various training programmes to improve the quality and volume of production and managerial ability. Infrastructural facilities have also been provided as a measure to remove sickness.

Suggestions and Conclusion :

1. To prevent sickness a careful survey has to be conducted on the industrial potentialities, availability of raw-materials and marketing facilities of the product of the small units before their establishment. In this connection what is more important is not the number but the quality of the product and the viability of the unit.
2. To avoid sickness such industries are to be taken up which can use the available local resources and cater to the local demand. Those industries should not depend on external markets.
3. It is observed that most of the units of khadi and village industries are sick due to high cost, high price and lack of consumer's choice.

mill-oil to 'Ghani-oil' because of the fact that the price of the mill-oil is comparatively less and the quality is superior. The same also happens in the case of hand-made paper and mill-made paper. Therefore, it is suggested that such items should be avoided to reduce sickness.

Competition between the products of small and large units leads to sickness of small units. Steps should be taken to avoid such competition.

From the study it is noticed that, the number of sick units under SSI is only 3.45% which seems to be very negligible. This has been recorded by the D. I. C. basing on the report received regarding sickness. If a proper survey is conducted many industries, which have not categorically been declared sick/defunct by D.I.C. come under the sick category.

It is interesting to note that though there are 204 village industrial co-operatives in the district, as many as 136 units are declared as sick (Table—2). It leads to non-utilisation of available raw-materials and unemployment of local artisans. Immediate steps should be taken to revive the viable units so as to provide employment opportunities to the local artisans.

The study further reveals that there are some products, for example, horn works and 'Pato' (Silk) are produced both by the industrial co-operatives and the individual units in the district. This results in competition between these two units and finally the individual artisans are compelled to close their units. Therefore, it is recommended that such competition should be avoided.

Steps should be taken to detect the sickness at an early stage and revival measures be taken to save the unit from mortality.

A View on Industrial Sickness in Orissa

—Propensities and Prevention

Surendra Nath Behera

The growing incidence of sickness in medium and small scale industrial units which adversely affects industrial production and employment, has evoked serious concern all round. It is a national phenomenon. As such considerable importance has been attached in recent years for expeditious revival of these units, as would be evident from the various policy pronouncements of the Government. There has been a general awareness of the situation and seriousness to tackle the problem in the national interest. Industrial sickness has been witnessed from the advent of industrialisation and is common to the developing countries as also the highly industrialised countries of the world.

Defining a Sick Unit :

The Reserve Bank of India has defined a sick unit in medium and large sectors as one, which has incurred cash loss in the last year and in the judgement of the bank is likely to incur cash loss in the current year as well as in the immediately following years. A sick unit is characterised by a high debt equity ratio. It is the one which works well below its break-even level on a continuing basis or one which fails to generate internal surplus on a continuing basis to meet its obligations and depends for its survival on frequent infusion of external funds. It is identified as one incurring cash losses. It faces liquidity problems and imbalance in financial structure. The present industrial system classifies unhealthy accounts into three categories, i.e. irregular, sick and sticky. It should not be assumed that a unit with persistent irregular accounts would be considered sick. However, there may be cases of sickness with seemingly regular accounts.

Symptoms of sickness :

The following signs are observed among the sick units, which if not taken note in time may prove disastrous for the units.

- (a) Continuous irregularity in cash credit accounts,
- (b) Failure to pay statutory liabilities,
- (c) Non-submission of periodical financial statements in time,

- (d) Profit fluctuations, downward trend in sales and stagnation or fall in profits followed by contraction in the share of the market;
- (e) Constant utilisation of cash credit facilities and failure to pay timely instalments of the principal and interest in respect of term loans etc;
- (f) Higher rate of rejection of goods manufactured by the company which often allows higher discount;
- (g) Progressive concentration of major sales to fewer customers and of sources of major raw materials in fewer hands;
- (h) Diversion of funds for purposes other than running the units;
- (i) Sudden and frequent changes in management;
- (j) Decrease in working capital on account of increase in debtors, decrease in creditors due to falling market reputation and piling up of inventories;
- (k) Rapid expansion and too much diversification within a short time;
- (l) Weak equity base and major changes in the shareholding pattern.

Causes of Industrial Sickness :

An industrial unit can become sick due to variety of reasons which can be broadly categorised into two heads :

- (i) Internal factors.
- (ii) External or environmental factors;

Internal factors include managerial deficiency, dishonesty, disturbed industrial relations resulting in poor labour performance, economic wage levels and surplus work force, project cost-escalation, utilised productive capacity, faulty production programme etc. Environmental factors include adverse market conditions for a prolonged period, a serious imbalance between demand and supply positions and recessionary trends, faulty Government policy in respect of excise duty, changes in international market conditions, perennial power shortage,

Multifarious factors for which the industries tend to become sick whose contribution to sickness is significant in small and medium e industries can be enlisted as follows :

mismanagement which includes bad selection of the project, inefficient financial materials and marketing management, unscrupulous sales/purchase practices, neglect in maintenance and repairs, diversion of funds for unauthorised purposes; lack of modernisation, absence of long term planning, financial incapability, inefficient management and love for temporary gains etc. make them sick. The projects very often lack essential management inputs.

Assuming that the project is selected, formulated, financed and grounded, there remains the problem of marketing of end products. Many units are dependent on Govt. purchahses. But delayed payments affect the liquidity base of the unit and paralise it. All the products produced are not sold in time.

Power shortage or paucity of electricity is another cause of industrial sickness. The Orissa State Electricity Board sanctions power but is unable to maintain continuous power supply to industrial units. The power cuts are for such long periods that it becomes impossible to run an industrial unit without its own power generation. Power shortage sets a serious constraint in utilisation of installed capacity. Capital remains blocked due to inadequate power supply that is under Government control. Most of the small units can not afford a generator of their own.

Lack of integration among Orissa State Financial Corporation and multiplicity of sources of financing the industrial units create problem in the loans sanctioned and repaid.

Industrial units are facing problems in registration of the establishment, sales tax registration, excise, license and obtaining no objection certificate from the Pollution Board. For power connection, water connection, sewer connection etc. they have to wait for a long time.

The financing institutions are doubtful about the credit worthiness or pay back capacity of the small scale entrepreneurs.

without training, experience and competent knowledge, information and well equipped data. The problem is further aggravated by inadequate and improper technical assistance.

ii) There is a slow process of input flow in right quantity in right time. Much of delay is caused in processing and sanctioning by the financial units and in decision making. Due to inadequate discipline among technical personnel, sometimes viable and feasible projects are turned down or deferred.

k) Pre-implementation sickness appears with outstanding interest. In Orissa, in many cases before implementation of the project, which is perhaps one and half times more than Gujarat and Karnataka the interests outstanding during implementation period are so high that either the amount is deducted from the doses of disbursement or the investment subsidy gets adjusted. Neither the promotional agencies nor the financial institutions monitor the implementation.

l) Problems also appear in the front of upgradation of technology, diversification, modernisation and expansion. Poor technology results in manufacturing of substandard products and cost escalation. Thus, the genesis of the problem lies in the unsuitability of the product for marketing, inadequate credit for working capital requirements for modernisation and diversification programmes and non-availability or inadequate supply of raw-materials.

Extent of Sickness in Orissa :

It is difficult to know the exact number of units that have actually become sick as the organisations are invariably quite secretive about it. On the basis of the available information, it can safely be stated that about 50% of the units are not in the mainstream of production, though they are enlisted in the group of manufacturing units. The percentage of closed factories in the small scale sector of the State was as high as 41.7% in 1974-75, which rose to 42.9% in 1976-77. They are all unhealthy units.

Table--1 shows the extent of sickness in the small scale sector that operates with a sanction limit of above Rs. 25,000/- :

Table-1

Position of sick small units.

	No. of units assisted	No. of units identified as sick	No. of units in PP/RD accounts	Amount of outstanding loan (Rs. in lakhs)
3	1786	496 (28.0)	244 (14.0)	2086
4	2451	865 (35.0)	454 (19.0)	2637
5	2697	1198 (44.0)	698 (26.0)	3001
6	4173	1051 (25.0)	760 (18.0)	1729
7	4212	1337 (31.0)	1050 (24.0)	2311

Figures in parentheses represent the respective percentages of the total)

Source :—Small Industries Business (SIB) Division, SBI Local
Head Office, Bhubaneswar.

It is clearly evident from the above table that the percentage of small units, reached the highest level during 1985, when out of 2697 assisted units, 1198 were identified as sick constituting 44 percent having outstanding loan amount of Rs. 3001 lakhs. A sick unit has a considerable burden. There has been an increasing trend of the units assisted from 1983 to 1987, with growing percentage of sickness and in PP/RD accounts, having larger amount of outstanding with an exception from 1986 to 1987 when it has declined. Total number of units included in the Protested Bills (PB) and Recall Debt (RD) accounts is another crude evidence of the rate of sickness. Units included in these accounts are those whose financial transactions have either been totally stopped by financing bank or the bank has initiated legal proceedings for recovery of the loan. It can be seen from the above table that the number of units in PB and RD accounts have steadily gone up from 1983 to 1987. In spite of the convincing arguments available from SBI data, the table portrays only a partial picture of the growing sickness in the small scale sector as units having limits below Rs. 25,000/- remain outside the purview of the assessment. Besides, the bank does not consider the units financed by

The Orissa Young Entrepreneurs' Association complained that the 1980 Industrial Policy of the Government has a bias in favour of medium and large scale industries with an unsympathetic non-preferential treatment towards the small units. Prior to 1980, there were 59 medium and large scale industries and 9119 small scale units in Orissa. During the last five years about 226 medium and large scale industries and 14,318 small units have been set up. They complained that the subsidy rate has been reduced from 15% to 10% in Cuttack, Puri, Sambalpur and Sundargarh districts.

Rehabilitation and Prevention of Sick Units :

Rehabilitation and prevention of sick units are more important than setting up new industrial units. Normally only such units as have a fair chance of obtaining viability within a reasonable period should be rehabilitated. A proper viability/techno-economic study encompassing the multifarious facets of units operations, such as, technology employed, production, sales/marketing, costing, organisational set-up, management practices etc. of a sick unit should be entrusted to reputed agencies of consultants to determine the precise causes of failure and recommend the necessary remedial measures.

In order to combat sickness in small industries, IDBI has devised the Refinance Scheme for Rehabilitation (RSR). The units assisted by the ECs/SIDCs classified as sick or developing signs of sickness are eligible for assistance under the scheme. The OSFC has entered into an arrangement with Industrial Reconstruction Bank of India (IRBI) for a line of credit for revival of sick units. The rehabilitation assistance taking the nature of various concessions and sacrifices might cover inter-alia the following forms.

- (i) substantial reduction in the rate of interest on current advances ;
- (ii) margin money for additional term loan and working capital requirements ;
- (iii) payment of statutory liabilities ;
- (iv) cash loss, if any, incurred during nursing programme ;
- (v) minimum capital expenditure required for restoring the unit on a viable level ;

(vii) temporary overdrawings against unpaid stocks for limited period.

The IRBI, set up in 1971 has been extending assistance for revival and rehabilitation of sick units in the form of term loan assistance and hire purchase finance facility to meet essential capital expenditure for renovation, modernisation and also for bridging the liquidity gap. For revival/rehabilitation of sick units a monitoring cell was created on the IDBI to detect sickness and suggest measures for tackling them. The IDBI provides refinance to the extent of 100% of the rehabilitation loan. It charged 9.5% rate of interest to the SFCs, which charged 10.5% to the borrowing unit. No commitment charge is levied in rehabilitation assistance. Since inception, till the end of 1986-87, the OSFC has sanctioned revival assistance amounting to Rs. 2.23 crores in respect of 108 tiny, medium and small units out of the total of 985 units being considered for revival which have gone sick or are developing sickness. The units fully revived are now able to repay the loan. Various identified reasons for sickness, such as, shortage of raw material, inadequate sanction of working capital, managerial deficiencies, marketing constraints and obsolescence of machinery have been dealt with. Services of the Orissa Technical Consultancy Organisation (ORITCO) and SISI are also availed. In order to create awareness among entrepreneurs and promotional agencies regarding facilities available under the RSR Scheme of IDBI, two workshops were conducted at Rourkela and Bhubaneswar during 1985-86 and three workshops at Baripada, Berhampur and Puri during 1986-87. The New Industrial Policy of the Government of Orissa has entrusted the OSFC/IPICOL for periodically monitoring the progress of the existing industrial units.

Table 2 gives a picture of the rehabilitation of sick industrial units by OSFC by March, 1982.

Table-2

District-wise sick Industrial units taken up for
Rehabilitation by OSFC till March, 1982.

District	No. of sick units taken for rehabilitation.	Type of industries rehabilitated.
Cuttack	7	Wood work, Gem clips, Pins, Tube light, Oil Mill, Dal Mill, Body building, Gudakhu etc.
Puri	9	Coconut Oil, Coir, Fibre, Match factory, Ice Plant, Ice candy.
Balasore	2	Rice bran, Oil and Extraction, Rice Plant.
Bhubaneswar	1	Rice Mill
Balasore	2	Cycle and rickshaw tubes and other rubber products, Rice Mill.
Bhubaneswar	3	Alloys steel and casting, wire drawing and nail, powerloom.
Bhubaneswar	2	Wire drawing and nail, Bone mill and allied products.
Bhubaneswar	3	Soft drinks, Stainless steel rolling, Conduit Pipe.
Bhubaneswar	2	Processing CI casting.
Bhubaneswar	1	Oil Mill

Source : Annual Report OSFC, 1981-82

The Industrial rehabilitation programme has broadly three
, which are stated below:

Preventive Actinn — Pre-nursing:

The symptoms of weakness of an industrial unit always have a
beginning and as such at the operating level the bankers have to
n watchful to the various danger signals by a unit, so as to detect
ent sickness followed by timely remedial steps before the situation
alls assuming crisis proportions. Strict monitoring of the operations
units on an on-going basis assumes paramount importance.

Rehabilitation — Nursing measures:

The banks and term lending institutions have served as a
sary for nursing the sick units. The basic objective of any nursing

lucing irregularity. Once a unit has been identified as sick it is operative for banks to satisfy themselves about the potential viability of sick unit based on techno-economic survey. To undertake nursing programme, feasibility study is to be undertaken to assess regarding the market potential and whether the existing plant and facilities are adequate to produce the required output. Additional input finance and payment programme are to be made. A nursing programme brooks no delay.

(3) Post-Nursing:

As the risk exposure of banks in the rehabilitation of sick units is high, a close watch on the progress of revival measures and use of funds as per envisaged plan require to be maintained by overseeing the operations of the assisted unit. Any shortfall or deviations in the projected activity levels, cost-runs under various rehabilitation expenditure etc. should need to be thoroughly probed into with a view to initiating timely remedial steps.

Suggestive measures for revival of sick units :

There is an imperative need for in-depth studies and greater assistance to backward areas to realise the plan goal of balanced regional development. Various steps in effective rehabilitation, such as, analysis of past operations, investigation of feasibility, scope of market, remunerative price, Government purchase, availability of raw materials, power are the areas to be carefully dealt with. Appointment of qualified, experienced and suitable personnel with management expertise and competence must be made. Periodical review and regular watch over the progress of the units are called for. An in-built machinery must be pressed into functioning for diagnosing potential dangers, identifying the trends and finally heralding corrective actions timely for reconditioning unwarranted developments on a continuous basis in order to keep the industrial units fastened in a safe harbour. It is needless to mention that stewardship requires to demonstrate perception, clear foresight and pragmatism in these processes. There is a necessity for a change in attitude, approach and style of functioning. The human factor is to be taken care of. It is absolutely necessary to monitor the implementation of the project just after the first disbursement. A new industrial culture needs to be created with a co-operative spirit and participatory approach, which will pave the way for a prospective industrial career.

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