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Editor :

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Bhubaneswar

ORISSA ECONOMICS ASSOCIATION

BHUBANESWAR

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Post-Reform Trends in India's Agricultural Growth

While the post-reform period initiated a number of structural changes in the field of industry, trade, commerce and fiscal system in the context of changes in macro-economic policies, agriculture did not receive sufficient attention. After the humiliating experience with imports of food grains during the sixties, a lot of effort had been made in the seventies to increase food production by stepping up investment in irrigation and by introducing new technology for increasing productivity of agriculture. Once there was accumulation of sizeable stocks of food grains by the government from the prosperous regions, there was more or less a complacency as reflected in the real decline of investment in agriculture during the eighties (Rao). In addition, there was another dimension that was added by WTO which made it necessary to reduce support to agriculture and open it up to the world markets.

DECLINE IN AGRICULTURAL GROWTH AND REASONS THEREOF

As can be seen from the Economic Survey (2005-06) of the Government of India, low and volatile growth rate in Indian agriculture and allied sectors declined from 4.7 per cent during the Eighth Plan to 2.1 per cent during the Ninth Plan. As against the target of annual growth rate of 4 per cent during the Tenth Plan, agricultural growth rate in the first year was negative (-6.9 per cent) due to a severe drought of 2002. With a favourable monsoon, growth was impressive, 10.0 per cent in 2003-04. But deficient rainfall in 2004-05 again caused a decline of food grains production as well as rate of growth of agriculture and allied sectors to 0.7 per cent. The advance estimates of National Income for 2005-06 released by the CSO on February 7, 2006 has estimated a growth rate of 2.3 per cent for the agriculture and allied sectors based on New Series (at 1999-2000 prices).

The experiences of the Post-reform period shows agriculture is facing a number of hurdles for which the rate of growth of agriculture

is fluctuating year by year. Due to the green revolution we had so much of surplus of food grains that we were even able to export some food grains to some of the deficit countries. But during the current year i.e. 2006, we have started importing wheat and pulses to prevent scarcity of these essential items. The following major problems are confronting Indian agriculture.

(1) Decline in Public Investment

There is growing scarcity of water for irrigation due to the decline in public investment for over two decades. Gross Fixed Capital Formation (GFCF) in agriculture is contributed by the public sector, private corporate sector and the household sector. Public sector contribution is mainly due to irrigation undertaken by the Government. The Bhattacharya Committee which was appointed by the Ministry of Agriculture to study the Capital Formation in Agriculture submitted its report in March 2003. The Report gives detailed information regarding capital formation both in and for agriculture. The Report shows that GFCF in and for agriculture at 1993-94 prices came down from 7.7 per cent of GDP in 1980-81 to 5.4 per cent in 1990-91 and 3.9 per cent in 2001-02. There was also decrease in GFCF by the Public Sector both in and for agriculture at 1993-94 prices during the period 1980-81 to 1999-00-the percentage in GDP of GFCF in agriculture was reduced from 1.8 in 1980-81 to 0.7 in 1990-91 and 0.4 in 1999-00 while the percentage of GDP of GFCF for agriculture was reduced from 2.5 in 1980-81 to 1.3 in 1990-91 to 0.9 in 1999-00. Gross capital formation in Agriculture both by public and private sector combined was also found to be less in 2002-03 compared to 1990-91, whereas investment in agriculture as percentage of GDP at 1993-94 prices was 1.92 in 1990-91, it came down to 1.27 in 2002-03.

It may also be mentioned here that of the gross capital formation in agriculture in 1993-94, the share of the public sector was of the order of 35 per cent, that of the private corporate sector was only 5 per cent and the balance of 60 per cent was contributed by the household sector comprising of 37 per cent in the form of construction, 18 per cent in the form of agricultural machinery and transport equipment and about 5 per cent in the form of livestock. This worked out to be merely 1.9 per cent of GDP. Obviously compared to the share of agriculture in GDP to be of the order of 31 per cent, this contribution was rather meager. It is obvious that unless there is substantial increase in public

investment, it will not be possible to increase the rate growth of agriculture.

(2) Technological Fatigue

Many factors contributed to the decline of public investment but two important ones are steep rise in the cost of construction and erosion of the resource base of states on account of substantial increase in farm subsidies. But since there is a great deal of complementarity between public and private investment, the decline in public investment also adversely affected private investment. The decline in agricultural investment and slow down in the growth of farm inputs declined the growth rate of agricultural output in the 1990s. The trend growth rate of total crop production declined from 3.2 per cent per annum in the 1980s (1980-81 to 1989-90) to 2.3 per cent per annum in the 1990s (1990-91 to 1999-2000). The growth rate of average yield per hectare from crops halved from 2.6 per cent to 1.3 per cent over the same period (RBI 2003 a).

It is also found that the deceleration in food grains output in the 1990s was not only due to the slow growth of inputs such as irrigation and fertilizers, but also by the declining contribution of total factor productivity. Generally government expenditure on agricultural research and education are most important determinants of Total Factor Productivity (TFP). Since both of these were neglected during the period of reform due to resource constraint, there was a decline in TFP. For example, while the contribution of TFP to the growth rate in output had risen substantially to a little over 40 per cent in the post green revolution, it declined to around 30 per cent in the late 1980s and continued further in the nineties. It is said that the decline in the growth of crop yields is due to technology fatigue and its inapplicability in dry land areas. This requires a change in technological set up to avoid its deficiencies.

(3) Inadequate and Unbalanced Use of Fertilizers

Though consumption of all fertilizers increased from 5.5 MT in 1980-81 to 12.5 MT in 1990-91, 16.7 MT in 2000-01 and 18.4 MT in 2004-05, the potential increase of fertilizer productivity has been limited mainly due to two reasons. First fertilizer use has become very uneven over a period of time. It is estimated that as much as 50 per cent of total fertilizers consumed in the country were accounted by the top 20 per cent of the districts. As such, at the aggregate level, there was

decline in the productivity of fertilizers use. A study of the ICAR shows that an optimal distribution of fertilizers in the production of wheat between different regions would increase output by 1.6 million tonnes.

Again unbalanced use of NPK has also contributed to the decline of productivity of fertilizer. If both P&K are increased per unit of N, output of wheat would increase by 2 million tonnes. Rao and Gulati estimate that optimal regional distribution as well as best NPK mix would increase wheat output by 12 per cent with a marginal increase of half a million tonnes in fertilizer consumption.

Similarly in the case of rice, a change in NPK mix results an increase in output to the extent of 1.2 million tonnes. Diversion of fertilizers away from the northern to eastern regions would yield 9 million tonnes with 1.5 million tonnes of additional fertilizers. Thus optimal level of fertilizer distribution with the best NPK mix 2:1:1 leads to about 20 per cent increase with 1.5 million tonnes of additional consumption of fertilizers (Rao 1994a; Rao and Gulati 1994). This implies that not only we have to increase the use of fertilizers, but at the same time maintain its proper balance.

(4) Technological Impact on Environment

One of the most important defects of new technology is that it creates environmental pollution. Intensive cultivation of land reduces soil fertility and soil structure which ultimately leads to the creation of deserts. Irrigation without proper arrangement of drainage makes soil alkaline or saline. Indiscriminate use of pesticides, fungicides and herbicides creates biological imbalance and leads to different kinds of diseases, through the toxic residues present in the grains and other edible parts. Unscientific tapping of underground water leads to rapid exhaustion of this wonderful asset left to us through ages of natural farming. Excessive use of chemical fertilizers depletes soil nutrients, degrades the environment and declines the productivity of fertilizers. Swaminathan further states that the rapid replacement of numerous locally adopted varieties with one or two high yielding strains in large contiguous areas would result in the spread of serious diseases capable of wiping out entire crops, as happened prior to the Irish potato famine of 1854 and the Bengal rice famine in 1942. Swaminathan therefore, remarks that if agricultural production is carried out with only an immediate profit of production motive without a proper understanding

of the various consequences of every one of the changes introduced into traditional agriculture, the new technology leads to exploitative agriculture. If we can build up a proper scientific and training base for sustaining the new technology and introduce the necessary correctives, we can be able to promote agricultural prosperity to meet the basic needs of the growing population.

(5) Inadequacy of Institutional Credit

Though there has been some improvement in institutional credit in recent years and the UFA Government in the 2006-07 has promised to double the supply of institutional credit to agriculture in three years, and some action is being taken to achieve this objective, there is a need to consider a number of problems to improve the quality and adequacy of credit flow, type of beneficiaries, credit delivery mechanism, actual interest rates charged and so on. For example as against the target of 18 per cent of the net bank credit to agriculture, the actual percentage has been going down. Secondly, the amount of institutional credit flowing to small and marginal farmers is reported to be 32 per cent as against their share of 36 per cent in the operated area. Further, even now the informal sources are providing over three fourths of the total credit requirements of such farmers by charging high rates of interest. Thirdly, no attempt has been made so far for group lending to farmers through genuine and bonafide NGOs. Fourthly loans granted to tenants or share croppers are extremely low, only about 1.65 per cent of the total lending to new fanners. Fifthly, the credit flow to the Eastern and North Eastern regions accounted for only 6.67 per cent of the credit flow. Further more, not only mobilization of rural savings is inadequate, but also the credit deposit ratio is low. All these weaknesses imply that there is need for more rational policy framework in credit expansion so as to meet the growing demand of farmers for credit to substantially improve allround development of agriculture.

Because of these difficulties, there is a move now to initiate a second agricultural revolution to rectify some of these hurdles and bring about an overall change in the agricultural development. According to Swaminathan, the future agricultural production programme will have to be based on a three pronged strategy designed to foster an ever green revolution (from the green to gene to ever green revolution), which leads to increased production without associated ecological and social harm. These strategies include defending the gains already

achieved, extending the gains to rainfed areas and making new gains through farming systems diversification and value addition. Instead of elaborating such a strategy, we will try to analyse some of the controversial issues in the field of agricultural economy and indicate rational measures.

SUBSIDIES VERSUS INVESTMENT:

One such controversy is farm subsidies versus investment. The input subsidies, so calculated, on fertilizers, irrigation, electricity and credit combined constituted about one-third of plan agriculture in 1980-81 and rose steeply to as high as 90 per cent of such plan expenditure in 1989-90. And the level of input subsidies in the post reform period of 1990s was much higher than in the 1980s. Whereas in 1989-90, the total farm subsidies on power, fertilizer and irrigation at 1981-82 prices rose to Rs.53 billion, they nearly doubled reaching Rs.104 billion in 1999-2000. At 1993-94 prices, they crossed Rs.250 billion in the same years. As against this, public sector GCFA at 1993-94 prices stood at less than Rs.50 billion in 1999-2000 (Gulati and Narayan, 2003). It is reported that even a modest reduction in subsidy on irrigation, say by 20 per cent, could have helped raise the Seventh Plan expenditure on major and medium irrigation by 20 per cent. Putting it differently, a subsidy reduction of even 5 per cent, say in 1986-87 would have helped at least double the expenditure on operation and maintenance of Rs.493 crore in that year (Vaidyanathan 1993). This would have, of course, entailed over three-fold rise in the collection of gross revenue from the farmers in that year (Rs. 167 crore: Vaidyanathan, 1993).

It is needless to point out that most of the subsidies do not benefit farmers. Take the case of fertilizer subsidy. It has increased from Rs.505 crore in the year 1980-81 to Rs.4389 crore in 1990-91 to Rs.15879.2 crore in 2004-05 (Economic Survey 2005-06). Almost half of these subsidies benefit the industries that produce fertilizer. Further, in respect of the other half, most of the benefits accrue to large farmers; small and marginal fanners hardly derive any benefit. We have already seen that due to lack of adequate investment, agricultural productivity has suffered a great deal. In order to ensure food security system through provision of minimum nutritional support to the poor through subsidized food grains and ensuring price stability in different states, food subsidies are provided by the government. These subsidies have increased from Rs.2450 crore in the year 1990-91 to Rs. 25800 (RE)

crore in the year 2004-05, an increase of more than 10 times. In this case also most of the benefits accrue to rich consumers rather than poorer ones due to lack of proper targeting of such subsidies. In most of the subsidies leakage is very heavy and it is therefore suggested that direct investment in infrastructure should have greater preference to outlay on subsidies. The importance of infrastructure development for Indian agriculture is underlined by the fact that both in respect of irrigation and literacy, only a little over 50 per cent of the potential has been effectively realized so far (Rao).

HIGHER PRICES OF FOOD GRAINS VERSUS DEVELOPMENT OF TECHNOLOGY, INFRASTRUCTURE AND HUMAN SKILL

The past ten years witnessed large increases in the Minimum Support Prices (MSPs) of rice and wheat due to the pressure of big farmers as a result of which there was a large gap between the cost of production and the MSP. One of the important impacts of this development was the regional segmentation of the market: for example, prices of food grains in the primary grain markets remained below MSP in some Northern States that substantially reduced private trade from the grain markets and excessive financial costs to the FCI for procurement and storage of food grains. Reduction of private trade in wheat and rice in the northern states of Punjab and Haryana also possibly led to crowding out of private investment in agricultural marketing channels. Market prices were often lower than the MSPs and therefore, there was unabated build up of food grain stocks with the FCI. At one point of time (June 2002) the stocks at 64.7 million tonnes were almost three times the buffer requirements that resulted in extremely high carrying costs and bloated food subsidy (Economic Survey 2005-06, PP. 95-96).

Even though there is some revision now and there is a modest increase in the MSP during past 5 years, the pressure on the part of large farmers' organisations is always there to increase the price of MSP, with the support of many political parties. But the economic analysis shows that the supply response of higher price in Indian agriculture is much less important than the improvement in technology, infrastructure and human capital. Dharm Narain (1976) who has made pioneering work on the supply response of Indian agriculture has pointed out 'An over-simplistic and, therefore, excessive preoccupation with

price can do more harm than good by distracting attention from the harder but more important tasks which belong in the non-price world of achieving technological breakthroughs and releasing such real constraints as stand in the way of becoming a reality in the farmers' fields.

Raj Krishna (1982) who made a survey of agricultural supply response in several developing countries found that the elasticity of output with respect to major technological shifters such as irrigation was 1.5 to 5.5 times the price elasticity, He therefore, suggested to give more attention to the development of technology (which can increase productivity), infrastructure particularly in rural areas (which will facilitate the improvement of agro-based industries thus reducing pressure on agriculture) and human capital (which will enable the fanners to improve their skill for operational efficiency).

AGRICULTURAL RESEARCH AND TECHNOLOGY

After the food crisis in sixties, a vigorous effort was made to increase the supply of food grains in order to ensure food security for the people of the country. The New Technology that was developed was helpful to increase the production of food grains in the irrigated areas. As such rainfed areas were more or less neglected. Now that there has been some improvement in the income of the people, there is a change in the taste of the people and there is a demand for a wide variety of commodities even in the rural areas. Therefore, there is need to increase diversification of agriculture and emphasize dairying and other animal products, horticulture and floriculture. And again if agriculture has to contribute to over all growth of the economy, there should be increase of exports of such commodities, for which there is a great demand in foreign countries.

The dry land or rainfed agriculture has comparative advantage in animal husbandry, horticulture, floriculture and many other smaller millets. The production of such commodities will also provide greater facility for increasing employment opportunities. We have also seen that the existing technology contributes to the degradation of environment which decreases the productivity of land. As we have seen the contribution of TFP to growth of crop production slowed down significantly in the post reform period of the 1990s, owing to the sluggish growth of public expenditure on agricultural research and extension.

Though there was some improvement in agricultural research in the post green revolution, it slowed down since the mid-1980s and hovered round 0.5 per cent of agricultural gross domestic product in the 1990s as against the requirements of the Ninth Plan at 1 per cent as projected by the ICAR. There is great need to evolve new biotechnologies to save on chemical inputs and increase productivity in irrigated and dry land areas without associated ecological harm. The new research inputs should aim to achieve agricultural revolutions in five areas to sustain and expand the gains already achieved and improve the ecological balance which will prevent degradation of land due to depletion of soil fertility and moisture. These five areas are productivity, quality, income and employment, small farm management and enlarging the food basket along with nutritional dimension (Swaminathan). All this implies that adequate funds should be provided to improve research to evolve new technologies, create favourable institutional setup which can carry such research programmes with success and design proper incentives for the absorption of new technology for the development and diffusion of adequate new technology (Rao).

CONCLUSION:

In conclusion, we can say that the prospect of agriculture is bright provided we divert some farmers from agriculture to other agro-based rural industries by improving infrastructure, strengthen the supply side factors such as irrigation, watershed development, research and extension and credit and improve the efficiency of assets created for increasing agricultural production. Agriculture is a business now. Business principles should be applied in agriculture to improve the efficiency of assets created or projected to be created so as to strengthen income opportunities of all those who have to work in agriculture to sustain their livelihood and meet the requirements of all others who are working in different fields of activities. Take the case of efficiency. We speak of business principles because many of the assets created in India do not provide adequate benefit. It is estimated that water use efficiency under the existing irrigation projects in India comes to only about 40 per cent. As against this, in the advanced systems of the West, as much as 60-70 per cent of the water diverted in large surface system is available for plant use. Similarly a number of irrigation projects started with great gusto to be completed within a period of 5 to 6 years

linger on for 20 to 25 years with an escalation of cost of 10 to 12 times. Such sheer wastes of resources are numerous and should be avoided to improve agricultural productivity in India. As Pandit Jawaharlal Nehru, the -great architect of India's development said, all other activities can wait, but not the development of agriculture. Therefore, agriculture should be given first priority in the process of development in India where the success of the entire economy depends on agricultural development.

REFERENCES :

1. *Government of India, Economic Survey, 2005-06.*
2. *Hanumantha Rao, C.H., Agriculture in Union Budget 2006-07, Mainstream, New Delhi, March 18, 2006.*
3. *Hanumantha Rao, C.H., Agriculture, Food Security, and Environment, Essays in Post-Reform India, Oxford University Press, 2005.*
4. *Krishna, Raj, Some Aspects of Agricultural Growth, Price Policy and Equity in Developing Countries, Food Research Institute Studies, Vol. XVIII, No.3, 1982.*
5. *Narain, Dharm, Growth of Productivity in Indian Agriculture in K.N. Raj, Amartya Sen & C.H. Hanumantha Rao (eds), Studies in Indian Agriculture, Delhi, Oxford University Press, 1976.*
6. *Swaminathan, M.S. Technological Change in Food Production : Implications for Vulnerable Sections, Working Paper 20, Chronic Poverty Research Centre, Indian Institute of Public Administration, 2004.*
7. *Vaidyanathan, A, Proper Pricing of Irrigation Water, The Hindu, 21 March, 1993.*

Baidyanath Misra

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SECRETARY'S REPORT

Mr. President Professor Mallik, our most respected Chief Guest Prof. Sukadev Nanda, Vice-Chancellor, Fakir Mohan University, revered Guest of Honour Prof. Baidyanath Misra, Chief Patron and Hon'ble Member of Parliament Sj. Swain, Chairman, Reception Committee and Principal, Fakir Mohan Autonomous College Dr. Mohanty, Organising Secretary Sri Acharya, Local Secretaries Sri Sahu and Dr. Mishra, esteemed Past Presidents of the Association, Office bearers and members of the Organizing Committee of the Conference, Distinguished Invitees, Members of the Media, Fellow Delegates, Ladies and Gentlemen.

As the Secretary of Orissa Economics Association, I consider it an honour to accord a warm welcome to you all to this 38th Annual Conference of the Association. We feel uniquely privileged to have with us our esteemed Vice-Chancellor, a dynamic personality and distinguished scholar in Political Science as the Chief-Guest on this occasion. We are extremely grateful to you sir, for your kind gesture. We are singularly fortunate to have with us an economist par excellence, a great social thinker and our revered teacher Professor Baidyanath Misra as the Guest of Honour for this Conference. We are thankful to you sir for your august presence here with us. We are grateful to Mahameghabahan A.K. Swain for his august presence. He has been a pillar of strength to the Fakir Mohan College. We feel confident that we will receive his support and assistance for strengthening an academic institution.

I take this opportunity to present before you a brief profile of our Association. The Orissa Economics Association was founded on 26 January 1968 with the main objectives of promoting the study and improving the methods of teaching in Economics and stimulating research on economic issues of contemporary interest. It was accorded the status of a learned registered society by the Government of Orissa with Registration No-5358/32 of 1968-69, and it enjoys the unique distinction of being one of the oldest registered regional academic associations in

the country with 03 Institutional Life Members, 296 Individual Life Members and 45 Annual Members. They include a galaxy of outstanding economists, professionals, executives, administrators and statesmen, besides teachers and researchers in the discipline of Economics.

The Association endeavours to achieve its objectives by organizing Annual Conference, Symposia and Workshops. It has the distinct honour of organizing a two-day Annual Conference regularly since its inception. The Association maintains the healthy convention of discussing two topics of contemporary interest in the Conference every year of which one is theoretically oriented concerning Indian Economy at large and the other with reference to the State of Orissa. The two topics chosen for discussion for this year's Conference are:

1. **ECONOMIC INSTITUTIONS: THEIR OPERATIONAL MECHANISM AND EFFECTS ON THE ECONOMY**

2. **HUMAN DEVELOPMENT IN ORISSA.**

Besides these two topics, Dr. Adwait Mohanty, Former Prof. of Economics, R.B.I. Chair, Utkal University will deliver this year's Mangaraj Memorial Lecture, an endowment lecture organized since 1987 in memory of Bhubaneswar Mangaraj, an illustrious teacher of Banki, He will discuss on "**Issues of the 12th Finance Commission and State Finance**". On behalf of the Association I express my deep sense of gratitude to Prof. Mohanty for having agreed to deliver the talk. I express my gratitude to Sri Trilochan Kanungo, an integrated personality, astute politician, social activist and noted statesman for having agreed to chair the session.

The Association has been publishing regularly its mouthpiece, the "Orissa Economic Journal" since 1968. The Presidential Address, the Mangaraj Lecture and the papers presented in the Annual Conference are published in the journal. The journal edited by the noted economist Prof. Baidyanath Misra, has earned appreciation and applause from the teachers and researchers and finds a place in reputed libraries in the country.

It gives me immense pleasure to express my heartfelt gratitude to our honourable Chief Guest Prof. Sukadev Nanda, revered Vice-Chancellor for having accepted our invitation to inaugurate the Conference. I am equally grateful to our Guest of Honour Prof.

Baidyanath Misra the guiding angel of the Association for his kind presence in the Conference and for undertaking the arduous task of editing the Orissa Economic Journal. Friends, this Conference is joint venture of Fakir Mohan College, Kuntala Kumari Sabata Women's College, Balasore and Dr. Jadu Nath College, Rasalpur. All these colleges have played a crucial role in organizing this Conference. I am proud enough to express my sincere thanks to Dr. Trilochan Mohanty, Principal, Fakir Mohan College, Smt. Sovabati Adhikary, Principal and Dr. Ramesh Chandra Mishra, Reader in Economics, Kuntala Kumari Sabat Women's College, Balasore, Sri Kamalakanta Acharya, Principal, Dr. Jadu Nath College, Rasalpur and other office bearers and members of the Organizing Committee for their tireless effort, in organizing this Conference in a colorful way. My special thanks are due to the Organizing Secretary Sri Kamala Kanta Acharya, Local Secretaries Sri Muralidhar Sahu and Dr. Ramesh Chandra Mishra, Treasurer Dr. Durga Sankar Sarangi and to Dr. Gananath Dash for the uniquely drafted conference invitation. No thanks are adequate for my revered teacher Prof. Bhabani Prasad Dash for his ungrudging help in nurturing the association. I am extremely grateful to the former Presidents and Secretaries of the Association, the members of the Executive Body and especially to the conference president Prof Radhamohan Mallik for their kind cooperation. I really owe a great deal to the dignitaries, invitees, delegates, paper writers, members of the press and media and to you all ladies and gentlemen for having given me a patient hearing.

I thank you all once again.

Dr. Rabi N. Patra

Secretary

Orissa Economics Association

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Forest-Based Livelihood, Poverty and Forest Managment in Orissa: Some Policy Issues and Options

by

R.M. Mallik

As President of the state's foremost Economics organisation, I feel greatly honoured and humbled on this historic occasion of the 38th Annual Conference of the All-Orissa Economics Association held at F.M College, Balasore. When I look back at the list of my illustrious predecessors, I feel amazed how such honour has fallen my way. I have accepted it with humility. However, I sincerely express my gratitude to the honourable members of the Association for so unhesitatingly elected me unopposed as the President. It is a great honour for me and I am extremely happy that I have been able to win the trust and confidence of all of you on such an auspicious occasion. In this august gathering of intellectuals, the economists and scholars, as President of the 38th Orissa Economics Association, I make a modest attempt to address on very non-conventional theme relating to forest and its sustainable management to tackle the problem of hardcore and ultra poverty existing in an endemic form among the marginalized forest-dependent people of Orissa.

Forests in India may not be growing rapidly, but certainly the literature is. Yet I am happy indeed in choosing a theme on forests, the area in which I have devoted major time of my research during one and half decades, and also the area which has remained inadequately explored in research both in the context of Orissa and all-India, though the food security and livelihood of bulk of forest-dependent communities are associated with forests. I thought, it was a good opportunity to take stock of the scarce literature, and also, emerging situation, and see, what I could make it in understanding the problems of forest and forestry. sector in Orissa. In doing this, I have dealt with policy, management, livelihood, poverty and some research issues in my brief presentation.

I

The forests in India, as elsewhere in the world, have been a source of sustenance to millions of people and forest-dependent poor. The rich bio-diversity has met the subsistence needs of food, fuel, fodder, household articles, agricultural and hunting implements and medicines. The flora and fauna, streams and waterfalls, springs arid mountains also have been catering to the emotional and aesthetic as well as recreational needs of the tribals (indigenous people), who dwell in and around the forests from the time immemorial. Besides, forests have been playing different roles, and are interacting variously in the management of other natural resources like land and water as well as other primary production systems. Of all, the astonishingly wide knowledge base on the usages and ecology of the rich flora and fauna of the forest dwelling communities has significant bearing on their livelihood interests. Further, the utilisation of such bio-diversity appears to have been institutionalised through a rich array of social, cultural and religious mechanisms. Therefore, it is not easy to address any specific issue relating to such resource base. Indeed, despite, an intense debate among the environmentalists, conservationists, foresters, researchers, planners, policy makers and social scientists as to how sustainable livelihood from forests could be ensured to forest-dependent people, the differences in their perceptions (possibly) on the basic questions such as- bio-diversity, ecological sustainability, environmental security, revenue maximisation, deforestation and impoverishment-all seem to have hindered/frustrated to reach at some consensus on their common endeavour to draw a set of definite policy frame and strategies.

Though, forests and communities under various eco-systems are understood to have changed their dynamic relationships over time owing to varieties of use of the forest resource, the ecological changes and the heterogeneous forest policies and forest activities of different forest actors have quietly affected the eco-systems in a big way — resulting in affecting the preservation of rich bio-diversity. Similarly, the future human needs for food, water, energy and settlement (which depend to a considerable extent on how the world's forests are managed) seem to have received serious threats (in recent years) due to fast depletion of forest cover. As a result, notwithstanding the differences in fixing priorities amongst the conservation of bio-diversity, protecting river flows and watersheds, ensuring secured livelihood and income in terms of

increased production and additional work opportunities, the uninterrupted massive deforestation process over years has begun to frustrate all these planned objectives/priorities in a big way. However, the Stockholm Conference in 1972, the Earth Summit in Rio in 1992 and the 11th World Forestry Congress, (WFC) in 1997 and 12th WFC in Quebec in 2003 have successfully revived a sort of positive thinking towards survival measures to deal with sustainable use of forest resource and livelihood issues of the forest dwelling communities. This is possibly the reason, which has insisted upon the present policy makers/planners to put greater importance to natural resource conservation, strong linkage between environment and development, importance to Sustainable Forest Management (SFM) through peoples' participation, etc. Thus, the process of 'Sustainable Development' evolved as a major thrust evoked a world-wide awareness and consensus that protection and conservation of forest through participation of local people and NGOs, could possibly save the world from impeding environmental disaster.

In recent years, sustainable livelihood and food security to forest-dependent communities and indigenous people of India in particular have raised series of critical issues in the management of precious forest resources. The continuing environmental degradation and deforestation seem to have severely curtailed the traditional occupations of the indigenous people based on food gathering, hunting and agriculture, without any provision of alternative livelihoods. This has been compounded by the Adivasis (tribals) losing control over natural resources, and forest resources in particular. State control over forests along with nationalisation of major NTFPs as well as transfer of tribal land to non-tribals, growing alienation of tribal land due to increasing indebtedness of the tribals, and the implementation of series of large development projects in the forest areas (resulting in displacement of tribals) have accentuated indeed their socio-economic incapability and food insecurity. However, consequent upon the New Forest Policy (NFP) in 1988, which aims at combining the objectives of environmental stability and bio-diversity conservation for achieving ecological balance, and meeting minimum subsistence needs from forest, a spectacular change in the forest management is now distinctly visible all over the country. Because, the NFP 1988 for the first time, recognised the symbiotic relationship between the forest on the one hand and the tribals as well as other poor people dwelling in and around the forest on the

other. Thus, there emerged a resurgence of grassroots community initiatives for regenerating degraded forests to deal with hardships caused by resource scarcities. As a result, we find thousands of self-initiated forest protection groups engaged in protecting thousand hectares of state owned forests in Orissa. Though, such community resource management traditions were eroded by the state interventions, many" of these groups have managed to gain recognition under the emerging JFM (Joint Forest Management). Such grassroots level initiatives at the earlier stage offered indeed a great deal of valuable insights into the priorities around which the forest-dependent villagers were organised on their own, and succeeded indeed to guide state agencies later on in making the JFM framework more relevant for meeting their needs. But, how far the conflicting objectives of the revenue interest of the government, livelihood dependence of the forest users and the overall ecological sustainability could be reconciled under the so-called JFM regime is a moot point.

A primary goal of sustainable development is to achieve a reasonable and equitably distributed level of economic well-being that can be perpetuated continually for many human generations. Accordingly, the current activities may be qualified as sustainable, if they do not reduce the productivity potential of the asset base and the set of opportunities open to future generations. Therefore, sustainability subsumes productivity and equity (World Bank 1992). In fact, natural resource is the base on which development takes place. Development has physical, environmental, social, economic, cultural and other processes. These processes influence one another. Physical development that is poorly conceived, planned and implemented causes many of today's severe environmental problems affecting soil, water, flora and fauna, biodiversity and the integrity of eco-systems vital for human welfare and security. Though sustainable development is based on dynamic interaction among the production, natural and social systems, planners have tended to focus on production system as a practical entity point. It is assumed that natural and social systems will adjust to a changing production system. However, this does not always happen. Only appropriate interaction between ecology, economics and sociology may lead to harmonious development.

Admittedly, the increasing denudation of forests everywhere over the years has begun to set policy changes for its conservation / security

and also for ensuring sustainable development of such precious resource. From a policy point of view, sustainability is not an option; it is an imperative. Therefore, sustainability needs to link growth to environmental quality and conservation. Without sustainability, environmental deterioration and economic decline will be feeding on each other, leading to social decay and political upheaval. In the process of development, however, development of one sector should not result in sacrificing the sustainability of another. Therefore, sustainable management of renewable natural resources should inherently be based on using income, and not consuming capital. Accordingly, the rate of harvest of living resources should not exceed the rate of regeneration. This implies maintenance, rational use and enhancement of the natural resource base that underpin ecological resilience and economic growth.

In this context, nature has gifted forest with a unique sense of bio-diversity. By virtue of this, a single fully grown tree is a valuable source of NTFPs consisting of wild foods, medicinal parts, leaves, tubers, gum exudates, etc. It is believed that its sustainable exploitation could provide timely food and some income to the forest dwelling population on sustainable basis. Evidently, NTFPs contribute in not only providing food security, but also precious traditional health saving medicinal plants. These serve as a great source of nutrition and medicine at times of distress. However, there is a universal role of bio-diversity development in providing food and nutritional support from forests. This warrants for securing maintenance of harmonious relation with nature and natural resources. In this context, forest usufructs obtained from forests contribute in a major way to supplement not only food production, but also a variety of products, such as, spices, medicinal and aromatic plants, gums, etc. for nutrition and health.

There are innumerable sources of food and medicinal plants that exist in the forests of Orissa Province from the time immemorial. Apart from traditional agricultural crops to meet food needs, food from non-traditional, naturally regenerating crops of forest origin are harvested without replenishment. Besides, famine foods obtained from forest areas, seasonal foods from horticulture crops and medicinal plants from forests exploited by the forest dwellers without replenishment are found sporadically from naturally regenerating sources. Indigenous and forest-dependent communities in Orissa basically depend on forest produce, though often they are accused of over-exploiting forest resources.

However, in reality, they seem to have developed a harmonious relationship with the forests to secure varieties of NTFPs for their food sustenance. But, in recent years, commercial exploitation of forest in many areas has resulted in creating a vacuum/gap due to unscientific and unethical practices, which have resulted in the disappearance of several plants of food and medicinal species. Such overuse of forest products in the state for food, fodder, fuel wood, fruits, fibres, housing, medicines has caused depletion of forest resources in a big way.

In point of fact, the dependence of the forest dwelling population on forests for sustenance seems to have increased appreciably, though quietly from a constructive to a destructive motive (Mallik 1994). That is how it has begun to threaten the very sustainability of the precious forest resource, and their future survival. Though, their dependence and intimate knowledge about the forest eco-system as well as its resources make forest dwellers and tribals critical actors in both extraction and monitoring of the NTFPs, the very threats to their food security and some income in terms of sale of NTFPs have begun to pose a pertinent question, as to how to develop a sustainable forest management system in the state of Orissa, and what options are available to develop a suitable strategy.

Of late, a renewed emphasis has now emerged for managing forests to directly benefit the forest dwelling communities, and the rural poor in particular on sustainable basis, though its success lies with the kind of policy intervention and strategies, cost-effectiveness, community participation, etc. In this context, what is perhaps more crucial is a set of policy options in the forest management relevant to livelihood issues that could effectively sustain and widen the scope for capacity building of forest-dependent communities on sustainable basis. This precisely relates to Sustainable Forest Management (SFM) that involves continuous provision of wood and non-wood products. The future human needs for food, water, health, energy and settlements to a large extent depend upon, how the forests are managed. Therefore, the sustainability of forest resource requires that the productive potential of the asset base in no case needs to be reduced, despite meeting its current needs, leaving a set of opportunities open to future generation. Thus, sustainability subsumes productivity (growth) and equity (World Bank 1992).

Livelihood sustenance and food security issue also relate to sustainable harvest of NTFPs that ensures negligible impact on the

structure and dynamics of the plant population. Therefore, the present day thinking is more concentrated on ecological sustainability at the harvesting levels, which would adequately take care of livelihood sustenance of the forest-dependent communities. In this connection, nature no doubt provides the grist to meet those requirements, but there are social organisations, individual decision-makers and markets, but not 'nature' that determine such ecological requirements (Chandrasekharan 1998). However, sustainability depends upon political, socio-economic and a set of institutional factors. But, what appears to be crucial in the context of sustainability of forest resource is, who are these end-users? The users may be government, community groups or local forest users, who use the resources differently owing to their varied needs, perceptions, priorities, purposes and so on. Of all, however, the local users are the critical actors of both extraction and monitoring. Therefore, users need to examine the possibilities of excessive harvests on which their livelihood sustenance depends upon.

To make the users involved to work together in order to ensure forest protection, and to yield better performance, sustainable management of forest resource under the aegis of JFM has proved to be the best possible alternative to promote their livelihood sustenance. It is presumed that such a stake to people in the management and use of forest resources could avert the tragedy of their alienation from the Government Reserve Forests (RF). But, sustainability itself in recent years faces threats even under peoples' management due to pressures of commercialisation and population growth thus, apprehensions that in future, JFM may break down and convert into an open access regime. In such an emerging situation, precautions for a suitable mechanism to avoid arbitrary action and misuse of precious resource need to be strengthened to counter the unsustainable use as well as encroachments. Because, by working together people could successfully protect their long-term interests of sustainable livelihood, and also could benefit by preventing illegal activities. Misuse of state property as well as Common Property Resource (CPR) could also be avoided through peoples' collective management and common endeavour. Therefore, major policy issues that emerge to be of crucial significance relate to allocation of forests under different institutions in order to reconcile the conflicting objectives of revenue interest of the government, livelihood sustainability interest of the forest users and the overall ecological sustainability.

II

ACCESS TO FOOD SECURITY AND FOREST RESOURCE MANAGEMENT:

Food Security and nutrition are of paramount importance in the present context of population growth, and the emerging threats to the basic sources of livelihood of the human beings all over the world. About 64 million hectares of land in India are under forest cover (both natural forests and plantations). The country's forest regions are concentrated in the northeast, the Himalayas and Shivalik ranges, the central tribal belt (Madhya Pradesh, Chhattishgarh, Jharkhand, Orissa, eastern Maharastra and north Andhra Pradesh) straps along with Western Ghats and other hill areas. More than 50 per cent of country's forests, however, are located in the central belt with heavy tribal concentration. Some 90 per cent of the country's forests are under the public ownership. However, India's forests and natural systems are under tremendous pressure/threats from its burgeoning human as well as livestock population. Of the estimated 450 million head of livestock about 270 million graze in the forests (Mukerji 1994). Further, fodder production has not kept pace with the increase in livestock.

In point of fact, as much as 50 per cent of the land is now degraded, and between 1970 and 1985, dense forest cover declined from 46 to 36 million hectares (FSI 1988). Though data on the extent of India's forest cover are inconsistent, according to FAO estimates the areas under natural forests declined from 55.12 million hectares in 1980 to 51.73 million hectares in 1990. However, according to official version, with increase in areas under plantations, the total tree cover in India increased from about 58.3 million hectares in 1980 to 65.0 million hectares in 1990. In contrast, the FSI data report that forest cover declined marginally from 64.08 to 63.73 million hectares between 1987 and 1999 (FSI 1999). The enormous demand for agricultural land coupled with the needs of industrial as well as commercial sector has resulted in huge loss of precious forest cover. As much as 2.6 million hectares of forests were converted into agricultural land well before the Green Revolution in the 1970s' slowed down the process. Reduced fallows period in shifting cultivation also led to deforestation, especially in the tribal belts in north eastern and central India. Thus, the remaining shrinking forest lands are the exclusive source of fuel wood, fodder,

and subsistence needs of millions of forest-dwelling population. In such an emerging scenario, the increasing human needs remain unfulfilled and the various attempts to deny or limit access as a means of conserving the remaining forests have resulted in serious resource conflicts in various forms.

Admittedly, the wasteful exploitation of such precious natural resource over the years continues to create a potential danger for the economy and environment. The users as it seems not only compete, but also struggle for securing dominance over such scarce resources with their vested interests. Though, local people, who live in and around forests depend on forests for their sustenance, the class differentiation among the locals seems to have resulted in a struggle to yield differential benefits from such precious sources of nature. By this, it seems while the benefit is enjoyed by one class, the cost is borne by another. In this context, the Forest Departments (FDs) all over the country are ill-equipped to withstand the onslaught of human and livestock populations in order to deny or regulate access to the rural communities. Of late, it has been realised that mere policies by the FDs may not resolve India's deforestation, and forest crisis. Thus, the need for the new approach to forest management emerged in the form of JFM, which is genuinely designed to improve the access to and control over the forest resources by the local communities. For the first time, a government document (New Forest Policy 1988) specified the rights of local communities to forest lands, giving them usufructs for grasses and other NTFPs as well as a portion of the proceeds (ranging from 20 to 100 per cent) from the sale of trees. The government also urged the State Departments to take advantage of the expertise of the NGOs to build up community participation in the protection and development of degraded forestlands.

JFM is commonly perceived to be a means for restoring not only the health of country's forests but also the self-respect and dignity of the impoverished forest dwellers, which could improve their economic well-being and livelihoods. It is contended that JFM could not only provide livelihood sustenance, but also, offer immense opportunities for empowering the forest-dependent and marginalised women and men to gain increased access to and control over the use and management of common pool forest resources. But, the communities participating in JFM are not homogeneous. They consist of diverse groups, differentiated by caste, class, and religion / ethnicity, and within and between each of

these groups by gender and age. It is normally the poorest, and the most marginalized, constituent groups within communities and households, who actually depend more on forest resources for survival. But, due to the dynamic hierarchy of social and power relations, it is often powerful, non-forest dependent groups, who have the greatest visibility and voice. These differences also exist due to gender differences. Such gender differences are structured by unequal gender relations perpetuated through diverse social institutions. On the other hand, the indigenous people, and the poor women in particular are the major, and often, the most disempowered forest resource users.

Imposition of uniform access and controls on all the existing users with diverse levels and types of dependence on forest inherently implies differential distribution of opportunity costs, and benefits among them. Thus, inclusion and exclusion in decision making, and articulation of priorities will tend to determine, who gains and who loses within and between the communities as well as the households. Further, as the local institutions formally agree with the state agencies under the JFM, their rules also represent a new regime of property rights to common pool forest resources. These indeed overlap with the existing regime of customary as well as legal usufruct rights to forests. But, the commitment for promoting gender equality, equal access to women and entitlements to public forests could institutionally be ensured under the JFM.

In fact, large chunks of forest land (12 lakh hectares approximately) in the Orissa province have been rendered degraded, and unproductive. Degradation has set in on account of overuse and ever-increasing pressure of human and animal population on forests. In such a situation, forests basically being local resource, the task of regeneration and rehabilitation of degraded forests were thought to be effectively tackled with the involvement and participation of the local communities. Accordingly, the forest management was re-oriented/redesigned to forge an effective partnership between the Government of Orissa and the concerned village communities. There, as per the NFP, 1988 and the Government Resolution 1990, the peripheral forests and protected forests were brought under the village level Forest Protection Committees (FPCs) in lieu of grant of small timber, fuel wood, fodder etc., as their bonafide requirement free of royalty.

The major institutional issue relates to ownership of forest lands. Historically, the forests have been owned by the state and even during

the days of Kautilya's Arthashastra in the 4th century B.C, the state was responsible for the upkeep and development of forests and the sole owner. According to NFP 1988, the main function of forests is to provide environmental goods and services and it is therefore a public good. Such environmental services are indivisible, non-rival and non-excludable. Further, due to its utmost importance for the survival of mankind, the ownership of such a good cannot be left in the hands of any individual or even a local community. Though it provides private goods too, its capacity can be accommodated within the framework of public ownership, whereas the capacity to provide public good cannot be easily accommodated within the framework of private ownership.

It is argued that state ownership and control over forests have not ensured conservation in the past resulting in a great deal of damage of such precious resource. However, the fate of forests seems to have been determined by other forces rather than conscious decisions about how forests should be used. It is therefore required to make suitable constitutional or legislative provisions to ensure that the forests are safeguarded from both populist and market pressures. In this respect, the Forest Conservation Act 1980 enabling the central government to play a decisive role for a rigorous appraisal on the issue of diverting forestlands to other uses in the interest of environment.

Despite state control over forests and so also, ownership over it, a lot of private goods are produced in the forests, which are appropriated by the local people. So, there is need to introduce an institutional mechanism for ensuring sustainable exploitation of these products. Though, people have been traditionally enjoying access to RF, they were indeed alienated from the management of forests for a very long time. But, the recent decision in early 1990s (JFM) to give them a stake in the sustainable use of forests, and also, involving them in their management could avert this tragedy. JFM is not just a scheme; it is also a new organising principle. The FD still owns and controls the forest, but people share forest products, both major and minor and participate in the management. Apart from grant of usufruct rights over MFPs, the provision of a share in the major produce could generate a great deal of interest in converting degraded land into forests. Thus, JFM is designed to involve people from the planning stage, choice of species, to provision of some scope for grazing land.

In point of fact, management of forests by local people is not new in India. Vishwa Ballabh and Kartar Singh (1988) reported that Van Panchayats were constituted in U.P since 1930s and in 1985, as much as 4,058 of them were alive and fairly effective to do away with unsustainable exploitation. I have often noticed during my field survey work that in Orissa, it would be sad if JFM ends up without being a widespread movement for sustainable use of forests. As a matter of general principle not only the degraded forest areas alone, but all the areas expected to face peoples' pressure could be brought under JFM in consultation with Village Forest Protection Committees (VFPCs) and Forest Protection Committees (FPCs), Local people, however, should be encouraged to manage a given area under JFM for ensuring sustainable use of forest resources, where harvests do not exceed productivity and that productivity is not impaired overtime. In point of fact, we cannot take it for granted that once the forests are handed over to the people for management, sustainability of the resource will be ensured. In earlier days, things were altogether different since there were neither pressure from commercialisation nor there were huge population. Fears are expressed whether under the continuation of these pressures JFM may break down and turn into an open access regime. However, it seems JFM is a better model than one of exclusive management by the people, since under such arrangement the Forest Department could act as a watchdog on the sustainability of forest use under JFM. The Draft Forest Bill has rightly recommended to wind up the Village Forest Committees (VFCs) enabling the Forest Departments to take over, when there is unsustainable use and encroachments into the forest. But, the interactions of the local people with the forests may not necessarily and always have a negative environmental impact. The tendency of some local people to cause fire in forest to stimulate growth of grass can also control weeds and open forest canopy for new growth of trees. For any beneficial effect however, it needs involvement of people, who could shoulder the responsibility of protecting forests in their own long-term interests. Good relations with local people and their help are necessary to check up smuggling and poaching. Prevention of many of these illegal activities, of course, is taking a heavy toll of forest personnel and resources. Though, JFM is confined to village forests, some institutional mechanism for involving people in protecting other forests too is necessary with some provisions of rewards for local people's efforts and sacrifice.

Ciriacy-Wantrup and Poishap (1975) distinguish between four basic regimes, (a) State Property; (b) Common Property; (c) Private Property, and (d) Open Access. Interestingly, JFM is the combination of the first two. Here, while members have a right to exclude people from other villages and to a share of forest produce and its benefits, the government reserves the right of ownership and control over the resource limiting forest land use for cultivation purpose and to control timber harvesting. Thus, in this case, the property rights neither do exclusively belong to government, nor to members, but is distributed between the two. This is indeed an interesting experiment of social engineering and researchers in general and economists in particular may be excited to investigate into factors determining its success/failure, the relative advantages/ weakness, as compared to pure state ownership and purely community forest management, what factors determine/guide decision-making, how forests could be allocated among alternative uses, how the VFC could ensure sustainable use of the resource, what should be the optimum size of forest for ensuring ideal management, what should be the size of user-group, whether and under what circumstances they could initiate activities in degraded forests and wastelands, and how to reconcile the state's interests and local interests.

There are, however, three institutions that undertake management of forest resource and they are: (a) exclusively under government control and management, but with limited participation of people as in case of, national parks, wildlife sanctuaries and ecologically fragile, but rich reserved forests maintained for environmental as well as ecological security/safety; (b) farm forests in private agricultural land leased to private people to produce timber, fuel wood and (c) JFM and social forestry mainly under peoples' collective management to meet local biomass needs.

III

FOREST CONSERVATION, POVERTY REDUCTION, AND LOCAL GOVERNANCE:

The dramatic transformation in forest resources, their use and management, and peoples' perception of their value during the late 20th century recognized the crucial role of forests in environment protection and conservation of biodiversity. Further, in recent years, forest policies all over the world have been increasingly influenced with greater focus

on forest's critical role in the livelihood of the poor. The New Forest Policy (NFP) 1988 in India bears testimony to this and widely recognises the role of forestry development since rural poverty is concentrated in many areas of most threatened forest biodiversity in which as much as 90 per cent of the world's poorest people depend on forest for their livelihoods (World Bank 2001). It is contended that forests and forestry could contribute immensely towards increasing food security and reducing poverty. But, while trade, technology and information systems and even human aspirations have become more global, more strikingly, the world's natural forests are rapidly declining.

However, with greater socio-economic inequity, the poor no doubt needs safeguards more than ever. In the context of rapid denudation of forest cover there are increased challenges for poor to secure food sustenance and livelihood support. It is increasingly believed that sustainable management of natural resources and forests in particular could provide new economic opportunities for impaired livelihoods.

In point of fact, forest resources immensely contribute directly to livelihoods of the rural poor and complement other key components of poverty reduction. Therefore, they have a greater role in the livelihoods of the poor. In recent years, it is realised that a great deal of benefits have begun to accrue to local people in terms of increasing access, control and use of forest and tree resources. In particular, a greater say in decision making process and management of forest resources have begun to cause a great deal of reduction in vulnerability of the forest dwellers not only through secure forest resources, but also through political empowerment. Also, it is now increasingly realised that the forest dwellers have succeeded in generating large income from forest goods and services in terms of improved governance through more effective local institutions, besides some direct benefits from environmental services. Further, forests and trees could immensely contribute to reducing poverty particularly in situations, when local people are empowered to make their own decisions concerning forest management. Further, participatory forest management indeed has facilitated a lot of capacity building activities, besides strengthening group organisations and local institutions. It is believed that once the local communities are strengthened, they could improve local livelihoods by improving access to infrastructure, education and health services (Community Forest, Nepal).

Despite forestry development and policy interventions some people stay poor in the forest-based regions owing to their insufficient rights to manage such natural resources. Evidences suggest that transfer of ownership rights over forest assets to the poor/grant of long-term access and control rights are feasible as well as cost-effective for poverty reduction. In this context, the very recent emerging new mechanism of JFM agreements in Indian states and Tanzania through devolving forest rights to poor communities, is expected to cause a great deal of transformation in this sector.

Similarly, ownership of village forest reserves to indigenous and rural communities in Ghana, Nicaragua, and Tanzania, long term concessions in Bolivia, Indonesia, households forest allocation in Vietnam and China, and complete transfer of forest resources to poor communities in Mexico and Gambia are proven mechanisms as well as stepping stones to poverty reduction. But, mere rights are not enough, unless the capabilities to claim and defend them against powerful actors are protected through constitutional guarantee and specific supportive legislation and regulation. In this context, the poor need to be aware of their rights and know-how to access effective routes to recourse. Besides, the local institutions need sufficient autonomy to act, modify and enforce the local rules for ensuring better livelihood.

In the context of poor people's use and control of forest resources, there are some entry points to elements of good governance; such as: representation, transparency, accountability and increased civil society roles. In point of fact, improved access to and transparency of information on forest resources is central to people-centred development. But, what are more essential in this context is appropriate information, technologies and communication channels to assist local decision-making. In situations of persistent poverty, forest products are of immense help to forest dependent poor in hard times. However, the very poor have limited access to market opportunities and participatory forestry activities. Therefore, they need measures that protect their access to resources through greater participation in resource management and trade liberalisation. Besides, there is need to cut regulatory burden on the poor and to make regulations affordable. Of course, there are excessive regulations on poor people's use of forest resource and access of the poor to forest resources is overregulated while the more powerful interests undermine the rule and legitimacy of law.

Of course, regulations benefit livelihoods and forests when poor people have rights and control. But, regulations need to focus more on curbing the excesses of the powerful than on limiting use by the poor. In this context, small-scale producers of forest products are subjected to costly controls while harvesting, transporting, processing and selling, whereas the large corporate producers and industries are subsidized. Therefore, the state should provide enabling conditions for the poor in those markets where small producers and poor forest dwellers would gain comparative advantage. What is more required in this context is access to information and dissemination of price or the value of forest resources in the market place is crucial.

Economics of forests suggest that there are multiple users of forests, each with their own objectives and interests. In order to reconcile the conflict of interests, participatory management of forests in recent years have become relevant and assumed' crucial significance not only in sustaining livelihood of forest-dependent communities, but also conserving biodiversity and ensuring environmental security. In point of fact, if biodiversity is not conserved today for future use, it may cause a great deal of difficulties for future gains in welfare. Admittedly, India is one of the few countries in the world having fantastic biodiversity –thus, a precious heritage that needs adequate care and protection.

Needless to say that production of wood is a significant function of forests, but it is valued in conventional economic terms. Both major and minor forest produces enter into national income accounts, but a significant portion of them-particularly Minor Forest Produces (MFPs) escape reckoning for some reason or other. Besides, varieties of MFPs meet food subsistence of the growing forest-dependent population and an average forest-dependant family fetches 20 to 50 per cent of its annual income from sale of MFPs (Mallik 1994, 1996, 1998, 2000 and 2004). On the contrary, the timber merchants, pulp and paper mills, saw mills, mineral ore exploiting agencies etc. are interested in commercial use of forests causing deforestation. The construction of large dams, hydroelectricity projects, several mineral-based industries in the forest regions and settlement of refugees also involve submergence of precious forest. There process of larger economy indeed operates with very little concern about the twin problems of poor environment/ ecology and poor people in the areas in which they exploit these resources relentlessly (Rao 1988).

IV

CHRONIC POVERTY IN THE FOREST-BASED REGIONS:

Majority of the chronic poor living in abject poverty in the forested regions of Orissa are tribals, SCs and poor forest dwellers, who have been living in the forests from the time immemorial. But, bulk of such population seem to have been experiencing poverty for an extended period of time in the remotest hilly/mountain areas quite far from the centre of governance. Preliminary study enquiries at different points of time suggest that in majority of cases, their poverty is transmitted to the next generations due to economic, social, political, natural, developmental, environmental and some indigenous factors. These very quietly underpin their poverty that persists. In consequence, numerically large number of forest-dependent poor benefit the least for their socio-economic upliftment from developmental planning implemented through rural development, anti-poverty and special drive programmes specific to disadvantaged groups of population in the State of Orissa (Mallik, 1996, 1998, 2000, 2002, 2004).

Admittedly, fast depletion of forest cover, overuse of forest resource in the most unscientific manner, mindless exploitation of exhaustible mineral resources in the forest based regions, mega irrigation as well as hydroelectricity projects, mineral-based steel / alumina industries, reckless export drive of precious exhaustible mineral resources from Orissa have increasingly severed the basic source of livelihood of forest dependent communities due to destruction of the precious resource base. As a result, shrinking forest base has increasingly polluted the environment / ecology, destroyed flora and fauna, endangered precious species, rich biodiversity, caused shrinkage of water tables, deteriorated the quality of drinking water and air, and ruined the agricultural base of the forest-dependant poor leaving no option, but to continue to remain poor as before, and in many cases prone to vulnerable conditions.

Further, the ongoing reckless exploitation of exhaustible mineral resources in the forested regions have accentuated their unsustainable use leading to a situation of intergenerational inequity not only in the use of mineral resources, but also in the varieties of precious forest produces and NTFPs in particular on which numerically large number of forest-dependent poor people depend for their food sustenance (during

the critical days) and livelihood. Thus, uninterrupted exploitation of these resources in the forest-based regions perpetuates poverty of the rural poor. In the emerging situation therefore, such disadvantaged category of population are prone to chronic poverty and fail to come out of its grips in the absence of suitable alternative sources of livelihood in the underdeveloped remote forested regions of the state.

Their inherent dependence on forests for food and nutrition, fodder, fruits, tubers, fibres, honey, gums, resins, medicines from the time immemorial for survival are further threatened due to their wasteful and inappropriate harvesting practices, land degradation, lack of market orientation, supply fluctuations, lack of competition in marketing, lack of storage and value addition activities, lack of skill building training programmes, stringent forest Acts, Laws, Rules, administrative provisions, inappropriate forest/NTFP policy, etc. and have indeed accentuated their miseries over years leading to chronic poverty. It seems, the issue of their rights and access to NTFPs, besides, incomes from NTFPs, which are basic to their sustenance and livelihood have not been adequately addressed. Even during last five decades of economic planning, the inadequate policy thrust over years on people-centred policies has accentuated their poverty and miseries. In Orissa, the tribal population in the forested regions have been historically marginalized and alienated from their basic source of livelihood, due to increasing indebtedness. Environmental pollutions and deforestation are distinctly found in chronic poverty and malnutrition.

Various micro-level field investigations conducted in the forest-based regions of Orissa suggest that socio-economic status of majority of such marginalized forest dwelling population has remained irreversible even in the so-called development process and therefore, a process of intergenerational transmission of poverty continues to remain in the forested regions, adequately reflected in malnutrition, ill health of mothers and children, causing divesting effects on the skill, capability and knowledge base of the forest-dependent poor. Such a vicious chain of adverse effects during the life cycle of forest-dependent poor causes deprivation of developmental benefits (if any), low consumption, ill health etc. for an extended period that persists chronic poverty leading towards impoverishments and greater vulnerability. Thus, they are much more prone to inescapable risks of hunger / starvation / destitution, etc.

Further, the fast decline of productive and household assets accentuate several disadvantages to them and keep them in chronic poverty for an extended period due to chronic indebtedness, land alienation and severe health problems of the earning members resulting in lower incomes and rising expenses.

In Orissa, low returns to gatherers have generally been attributed to policy distortions leading to public and private monopolies and to traders "hold over poor and ignorant forest dwellers", especially tribals. Further, the very nature of dispersed and uncertain production combined with fluctuating demand and underdeveloped markets has led to fall in gatherers' incomes leading to greater poverty of chronic nature. Studies (Mallik 2000, 2002, 2004) suggest that Government of Orissa is incapable of effectively administering complete control over trade or do buying and selling of NTFPs itself, causing thereby distress sales, credit-linked trade, adverse and exploitative terms of exchange in the remote forested regions. Lack of sustained political support and leadership have increased inefficiency and market distortions in which the primary gatherers are the worst sufferers.

Forest degradation has adversely affected the STs, SCs, women and other disadvantaged forest dwellers in several ways:

(a) The flow of forest products to the poor households has reduced, not only due to deforestation but also due to lack of proper planning on plantation of usufruct based trees. As a result, both the food security and livelihood security of the rural poor in the forest-based regions have been adversely affected often leading to starvation deaths and hunger,

(b) Since, collection of NTFPs is primarily the occupation of women folk, they bear the burden of increasing deforestation, increasing drudgery and severe health hazards leading to perpetuation of their poverty.

(c) As the burden of poverty becomes severe, the poor in the forested regions are forced to sell a greater proportion of their meagre collection of NTFPs rather than consuming those for survival.

(d) Deforestation and greater dependence on sale, apart from affecting women's relative status, has also caused severe health problems due to non-availability of medicinal herbs available in

the past, but now extinct, leading to greater incidence of night blindness, dental caries, anaemia, gum-bleeding and other diseases. Such adverse consequences of deforestation keep them in abject poverty for an extended period during their life cycle and perpetuate poverty to the next generation.

(e) Series of research studies (Mallik1994, 1996, 1998, 2000, 2004) conducted at the NCDS concerning different forested regions reveal that on an average a household draws as much as 20 to 50 per cent of total income per annum from sale of NTFPs, besides, food sustenance (the market value of which is around 20 to 30 per cent of total income per annum) collected from the forests for consumption. Evidently, most households in the forested regions in the Western and south Orissa subsist on nearby forests for about six months from April to September. Further, though collection of NTFPs accounts for millions of person days of employment, collection of some NTFPs entails risk and may cause severe injuries and even death. But, the poor forest dwellers keep on doing it for their mere survival.

Exp.: (a) Risk of snakebites/falling into pits during collection of hill brooms,

(b) Collection of honey is risky due to stinging of bees

(f) By and large, chronically poor people are characterised by a structurally low asset base; land, productive assets and household assets and are glaringly visible in the forest-based regions. But, increasing deforestation, greater land alienation and growing liquidation of household as well as productive assets of the forest-dependent poor cause a great deal of deprivation of income and increasing indebtedness, mortgages of productive assets for a longer period and therefore, keep them in poverty for an extended period and in the absence of right policy intervention to get rid of such problems, the poverty perpetuates and becomes chronic. Research Findings (Mallik and Panigrahi 1998) suggest that the poor forest dwellers in the tribal dominated region, Bhuinya pirh in Keonjhar obtain an average daily return to their family labour from collection of NTFPs from forests equivalent to Rs. 13.34 by covering huge distances with increasing drudgery compared to average per day wage income of Rs. 34.21 earned by the landless labourers in doing mining

activities. Such dismal per day income from forest source does not only demonstrate their deprivation of living with minimum nutrition and health care but also, distinctly reflects on their income poverty, which persists for a long period leading to hunger, malnutrition and health hazards.

(g) The food security and level of living of the forest-dependent poor in Orissa are also threatened by the market mechanism and market distortions of NTFPs. In the process of commercialisation of these products, the mode of exchange, different type of agents involved in trading activities, poverty of forest-dependent poor, and their low bargaining strength result in distress sales, faulty measurement, credit linked trade, limited value addition and make them prey in the hands of local traders, merchants and middlemen, who buy NTFPs cheaply from the primary gatherers and sell these to exporters/processors or their agents at the upper hierarchical level at exorbitant prices, depriving the primary gatherers to fetch genuine price for their products.

Many research studies (Mallik 1994, 1996; Mallik and Panigrahi 1998; Mallik et. al. 1998; Chandrasekharan 1998) suggest that lack of dissemination of information about support prices in time, lack of market avenues, lack of processing units for value addition, and absence of appropriate link between input sector d post-production sector, gatherers, cultivators and resource owners of NTFPs fail to secure a fair share of processing and value addition too.

In many cases, the NTFPs are bought and sold several times adding value at hierarchical stages before these are finally consumed. Since the technology and finance to perform these functions are beyond the reach of impoverished primary gatherers, these are left to intermediaries, who appropriate the greater share of the value of the products in terms of profits, through various exploitative terms of exchange carried out in a hierarchical form.

Research findings (Mallik and Panigrahi 1998) suggest that while trading of a few selected products in Keonjhar district, the price spread in the process of disposal caused a great deal of difference between what the primary gatherers realise and the price realised at different hierarchical points of disposal. The differences in price varies between

150 to 233 per cent and such profit is appropriated by the middlemen at the cost of forest dwellers. More strikingly, the state sponsored institutions have equally strong profit orientation in order to earn more revenue for the state. As a result, people's access to forests for meeting their basic subsistence needs has deteriorated and has been fairly widespread.

SOME SELECTED POLICY OPTIONS:

It is not that chronic poor people were not identified earlier by the developmental agencies to participate in varieties of rural development, anti-poverty and special programmes in the tribal dominated forest regions of Orissa, but the criteria and the methodology were different. Exp: Identification of poorest of the poor in the village by the villagers under the IRDP programme.

That chronic poor people need special attention through a couple of selected direct policy intervention is not ruled out. But, while formulating some policy options, there is need to identify the limitations in the earlier policies, monitoring programmes and actions taken at the grassroots. Since chronic poverty varies across the forested regions and across the tribes, very careful planning of the programmes at the State, District, Block and Panchayat level need to be formulated through resource mapping (both physical, natural and human resources) and investment priorities need to be in order.

Here are a few selected options:

1. Immediate policy actions for direct involvement of the community/people in large scale in all developmental and anti-poverty programmes through PRIs, dissemination of information about investible funds and programmes, effective monitoring, transparency, intensive and extensive skill and capacity building activities at the grassroots, periodical reviews of the programmes for effective implementation to address poverty issues in a big way.

   I do not claim that these are not followed. But our research findings in various forested regions of Orissa reveal that there has been gross failure in monitoring of the developmental programmes, and these need indeed a lot of skill and capacity building training programmes for the implementing agencies and field level officials for better result.

2. A lot of provisions for increasing opportunities for the rural poor to take advantages of economic growth and markets need to be considered on priority basis and the productive assets including land of the forest dependent poor need to be built up through:

(a) Deregulation of markets to enhance access of the forest-dependent poor and opening up of wide opportunities for generation of adequate income to the family.

b) Preservation of their traditional rights and privileges over forests, and formulation of pro-poor forest Rules, Acts, Regulations and Administrative provisions and immediate revisions therein for enhancement of their access to forest resource for collection, processing and marketing of NTFPs.

c) Preservation and extensive use of the traditional knowledge, experience, skill, wisdom of forest-dependent tribal poor in enhancing their family income and establishment of demand-based as well as supply-based small/medium forest-based enterprises in the forest-regions for greater employment opportunities of local people, so as to raise their level of living.

d) Empowerment through good and effective governance for ensuring social equity, so that the benefits of decentralisation could percolate down to local as well as community levels.

e) Intensive capacity building through special training programmes should be conducted for the deprived and underprivileged poor people to raise their skill and capabilities to effectively participate in varieties of economic activities, management and governance process.

f) Improper/inadequate monitoring of various developmental and anti-poverty programmes in the forest-based regions has accentuated social disparities, economic inequalities and chronic poverty at the regional level. Lack of dynamism and change in the mindset of the implementing agencies/ officials at the grassroots has also caused policy failures to create any positive impact on the level of living of forest-dependent poor. Instead, the beneficiaries are found to be the vested groups of people, corrupt officials, contractors,

middlemen and the local politicians, who have capitalised all the benefits to their fold in varieties of ways. Thus, at present, we notice social tensions, Naxal movement and Maoist violence in every nook and corner of the tribal dominated forested regions of Orissa. Therefore, time is ripe now to involve the community, people, developmental agencies, officials to re-orient their strategies and monitoring activities in tune with the needs of the economy, society, state and the poor. Empowerment of poor for their livelihood security and to reduce vulnerability needs to be addressed on priority.

3. The basic thrust of state policy strategy should be more on the livelihood objectives of the forest dwelling communities rather than on the revenue interests of the government (National Committee for Development of Backward Areas 1981). Therefore, the primary requirement would be wide dissemination of information relating to policy and law as well as action taken so that the primary collectors could gain from commercialisation, and revenue maximisation, measures by making sustainable use of NTFPs and ecological/environmental sustainability.

4. State policies on collection, trade and disposal, processing, and value addition of NTFPs affect different sections of population differently based on degree of their forest dependence. They directly influence extraction methods, agencies involved in collection, use, processing, trading, storage and marketing of NTFPs. On one hand, a number of laws have been enacted to mainstream and protect the tribals from exploitative interests of land grabbers and moneylenders although with limited success. On the other, various Bills restricting the freedom of forest dwellers have destroyed the symbiotic relationship between tribals and forests, and have further alienated them. All these need a suitable (fresh) review in the light of changing needs of the economy, society and livelihood of the forest-dependent poor.

5. Of course, some of the State Forest Laws, Policies, Acts and Administrative Directives for Forest Resources and NTFPs in particular in Orissa, are often in conformity with the National Forest Policy perspectives (formulated and implemented from time to time). Some of these include the National Forest Policy

1952, National Commission on Agriculture (NCA 1976), the Indian Forest Bill (1980), the Forest Conservation Act (1980), National Forest Policy (1988), Panchayats (Extension to Scheduled Areas) Act 1996 (henceforth PESA 1996) and so on. The National Forest Policy (NFP) 1988 also provides the local people the first charge on forest produce and shows a marked shift from trade orientation of the Government to the maintenance of ecological balance. The Government of Orissa, in order to prevent exploitation of tribals (involved in collecting and selling of NTFP) have taken a series of policy measures from time to time in particular for the payment of fair price for NTFPs. The PESA (1996) inter-alia empowers the Gram Sabhas and Gram Panchayats in scheduled areas to safeguard and preserve the traditions and customs of the people, their cultural identity, community resources, and customary methods of dispute resolution and more specifically to provide for endowing Panchayats with appropriate ownership of minor forest produce. By and large, the PESA provides a lot of useful guidelines, directives to the state government for formulation of appropriate Forest Laws and Acts for the larger benefit of the forest dwellers living in and around the forests.

6. The prospects of value addition to NTFPs are very bright in Orissa. Processing of NTFPs assumes crucial significance especially when forest dwellers are isolated from the mainstream of market economy and are greatly dependent on NTFPs for their sustenance as well as chief source of household income. But, in reality, the forest gatherers end up selling most of their products in raw form in the remote forest areas of Orissa at very low prices due to technological and financial constraints thus, receive low returns to their labour. There, promotion of local value addition has great relevance, as it will not only enhance the income levels of the gatherers, but also could ensure their meaningful participation in conservation of precious forest resources.

7. There are wide opportunities in Orissa for setting up a large number of small-scale forest-based enterprises due to rich varieties of NTFPs available in the forests of the state. Among the possibilities; (a) Medicinal herbs have immense potential and

are available in larger quantities in Mayurbhanj, Koraput, Keonjhar, Phulbani, Sambalpur and Balasore districts. *Nuxvomica* and *Rona serpentifolia* are available in plenty in Udala, Nayagarh, Muniguda regions of the state. (b) Myrobalans extraction in the state is around 0.1 lakh quintals/year against a potential of 0.25 lakh quintals. Due to lack of processing facilities a substantial part of this resource goes out of the state through illegal trading (c) Tamarind has a major potential in the form of powder concentrate and starch. A major part of tamarind collection is sold unprocessed in the markets of the neighbouring states, which causes a lot of loss in forest revenue, employment opportunities and so also income to many poor people in the state. Since it is available in plenty in Koraput, Kalahandi, Bolangir and Phulbani districts of the state, establishment of tamarind processing units at the behest of the state could be a promising venture. (d) Oil extracting units for palm rose, citronella and lemon grass, eucalyptus, Mahua seeds, and soap nuts in different parts of the state may prove useful. (e) Other miscellaneous units for rope making (from sisal), wooden electrical accessories making, agarbati making, matchstick making, etc. have also a lot of opportunities due to rich forest potential.

8. Besides, a number of oil mills also could be set up in the state on a decentralised basis owing to greater potential of forest-based oil seeds namely, Sal, Kusum and Karanja. There is greater scope for tannin extracting units due to rich potential of Myrobalans, Sunari as well as Karda bark. Barks of Arjun and Asan used for extracting oxalic acid have great commercial value. The great potential of widely growing aromatic plants could be systematically exploited to cater to the needs of export markets. Similarly, gum is very much underexploited in the state despite its rich market and income potential. It is pertinent to point out that gum marketing industries and lac works have made remarkable progress in the neighbouring states, Andhra Pradesh and Jharkhand. There is great deal of opportunities for value addition activities in leaf plate as well as gum making for women. There is vast market for these products, and so also rich forest potentials do exist. Honey and wax potential in Orissa need to be exploited on a large-scale basis by establishing household

processing units that could intensively use unemployed as well as underemployed family labour in the tribal areas.

V

CONCLUDING REMARKS:

The rich potential of forest resources in general and NTFPs in particular, the magnitude of collection, domestic consumption and income from sale indicate the vast potential for processing of forest products and the benefits of value addition at the household level of the forest dwelling communities. In this respect, the indigenous skill, knowledge, wisdom and experiences of the forest-based people gained over the years should not be undermined. An interface between traditional knowledge and modern concepts (to our mind) need to be forged for production, marketing and processing with some amount of value addition to the available NTFPs. In this context, in addition to TDCC, women's groups, VSSs can be appointed as lessees for Salleaves, Mahua etc. so that they could take up local processing in a big way. By this, they could be empowered to dispose of the collected or processed items in the open market, and also could enjoy some price advantage. Thus, the process of freeing market from unnecessary controls would begin without any radical change in the laws.

Similarly in the emerging fast depletion of forest cover in recent years as well as growing degradation of forest in India, JFM is no doubt a powerful and robust institutional arrangement for empowering the forest-dwelling population to conserve/ preserve bio-diversity and meeting their subsistence needs through participatory forest management strategies. The foregoing analysis made it distinctly clear that the issues concerning sustainable livelihood and food security are basically determined by the way the local people with facilitating assistance from the FD could succeed in managing the precious local natural resource for ensuring sustainable availability of forestry food crops through bio-diversity conservation, ecological/environmental security and protection of precious plant species. But, of all, it is management which is the primary objective of ensuring bio-diversity conservation, food security and safe livelihood of the forest dwelling population. Therefore, in the emerging situation, administration of common property nature of forest resource and NTFPs in particular, indeed, need secure and enforceable use rights as preconditions for ensuring collective management and

conservation. Security of tenure and resource rights alone, though necessary, is not sufficient for sustainable availability of forest resource. This needs strong) self-regulating institutions and community organisations with effective and transparent mechanisms for ensuring equitable share to all. Similarly, important are the policies that encourage and reward active participation of communities and local institutions in sustainable forest management.

Further, re-examination of the policy prescriptions, Forest Laws, Rules etc. no doubt should be in order. In any case, multiple use NTFP-based management needs a significant recording of the policy space and institutional landscape in the context of ongoing liberalised economic order. Apart from technological improvements, the emerging order no doubt calls for new arrangements of access, ownership, control and management. A clear understanding of the role of local people, management agencies, industry and government also need to be addressed, so that JFM could decisively focus its attention on the safe livelihood and provision of food and nutrition on sustainable basis. The challenge is to plan and implement innovative management strategies as redressal measures to alleviate the poverty of the forest dwellers and also save them from perpetual socio-economic deprivations including food insecurity notwithstanding bio-diversity conservation and ecological/environmental sustainability.

It is a matter of greater pleasure for all of us that the Scheduled Tribes (Recognition of Forest Rights) Bill, 2005 has been scheduled to be placed in the winter session of Parliament, with the recognition of the following rights: (a) tenurial security providing relief against the physical and psychological alienation of land to which the Scheduled Tribes belong to ;(b) livelihood in terms of subsistence agriculture on "as is where is" basis and the ownership of NTFPs including rights to control, trade and processing; (c) traditional and customary rights. However, the Bill, when it becomes a law, would benefit the forest-dwelling Scheduled Tribes in all states. Besides, recognising traditional rights over the forest land under their occupation and their habitat for self-cultivation of land for their livelihood and providing them access to use or disposal of NTFPs, it will also remove from their psyche the threat of eviction or removal from forest land under their occupation. They will also be entitled to the benefits of various schemes of the government after vesting of clear-cut title of the land in their favour.

REFERENCES :

Chandrasekharan, C. (1989), Economic Value of Non- Timber Forest Products in South West Asia, Council for the International Union of the Conservation of Nature, The Netherlands.

Ciriacy-Wantrup, SV. and RC. Bishop (1975), 'Common Property as a Concept in Natural Resource Policy', Natural Resource Journal, Vol.15, No.04, October.

Government of India (2002), Orissa State Development Report, Planning Commission, New Delhi, (Prepared by Nabakrushna Chowdhury Centre for Development Studies, Orissa, Bhubaneswar).

Government of India (1988), National Forest Policy 1988, Ministry of Forest & Environment, New Delhi.

Government of India (1976), National Commission on Agriculture 1976, -Ministry of Agriculture, New Delhi.

Government of Orissa, (2004), Orissa Human Development Report, (Prepared by Nabakrushna Choudhury Centre for Development Studies, Orissa, Bhubaneswar).

Mallik, RM. (1994), Study of Some Minor Forest Produce in Orissa: An Empirical Investigation, NCDS, Bhubaneswar, Orissa (Mimeo).

Mallik, RM. (1996), Procurement and Marketing of Kendu Leaves in Orissa: A Study of Economic Deprivation and Benefits to Primary Collectors, NCDS, Bhubaneswar, Orissa (Mimeo.

Mallik, RM. (1998), Study of Domestic and Commercial Use including Marketing of NTFPs, Research Report submitted SCC, SANDIANCONSUL TNATURA, Sweden (Mimeo).

Mallik, RM. and N. Panigrahi. (1998), Non- Timbe.r Forest Produce Collection: Benefits and Management, NCDS, Bhubaneswar (Mimeo).

Mallik, RM. (2000), 'Sustainable Management of Non-Timber Forest Products in Orissa: Some Issues and Options', Indian Journal of Agricultural Economics, ISAE, Bombay, Vol-55, No.-3.

Mallik, RM. (2000), Impact of NTFP Policies on Sustainable Livelihood of Forest Dependent Communities in Orissa: An Empirical Exercise, NCDS, Bhubaneswar, Orissa (Mimeo) (Submitted to ST and SC Welfare Dept., Government of Orissa)

Mishra, R (1998), Legal Framework and Institutional Arrangement between OFD and Communities in Orissa, Report submitted to SCANDIACONSUL T NATURA, AB, Sweden, (Mimeo).

Mukerji, A.K. (1994), India's Forests: A Status Report, Concepts, Definitions, Trends and Controversies, (Draft).

Nadkarni MV. (1996) 'Forest, People and Economics, Indian Journal of Agricyltural Economics, Vol.51, No.1.

Nadkarni M. V. and Syed Ajmal Pesha (1992) 'Contibution of Forests to Agriculture: A Case Study of Arecanut Gardens in Uttara Kannada' in Ani! Agarwala (Eds) 1992.

Rao V. M. (1988) 'Sustained Development Through People: The Need For Political Activization' Vikalpa, Vol.- 13, no.- 3, July-September.

Saxena, N.C. (1996), 'Forest Policy and the Rural poor in Orissa', Jagruti Vani Vol. II, No.4 and Vol. 12, No.1, March.

Saxena, N.C. (1997), 'The Saga of Participatory Forest Management in India', CIFOR, Indonesia.

Saxena, N. C. (2000, 2002) 'Forests in India, World Bank, Washington'.

World Bank (1992), World Development Report: Development and Environment, Washington, D.C, USA.

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ECONOMIC INSTITUTIONS : THEIR OPERATIONAL MECHANISM AND EFFECTS ON THE ECONOMY

ECONOMIC INSTITUTIONS :
THEIR OPERATIONAL MECHANISM
AND
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Institutions in the Process of Economic Development Quality That Matters

Kishor C. Samal

After the disintegration of former Soviet Union and weak performance of Russian Federation in the 1990s, disappointing economic performance of Africa, failure of Latin American countries' economic reform and East Asian financial crisis, the importance of the role of the State and institutions has been realised by the researchers and the multilateral agencies like IMF and World Bank.

I

TYPES OF INSTITUTIONS

Institutions can be public or private, formal or informal. Besides economic institutions, there are other institutions such as political institutions (with variables like election, electoral rules, types of political system, party composition and extent of military influences on government) social institutions (eg. social & capital) and others (Aron: 2000; Beck: 2001). There are two distinct functions of institutions: (i) efficiency and (ii) redistribution (Caballero: 2001)

Five functions that public institutions must serve for markets to work adequately are: (i) protection of property rights, (ii) market regulation, (iii) macro-economic stabilization, (iv) social insurance, and (v) conflict management. Therefore, there are five types of market-supporting institutions (Roderick: 1998,2001) such as: (i) property rights (eg. ownership of material goods, intellectual property rights, "control" rights, etc. which are upheld by a combination of legislation, private enforcement and, custom and tradition), (ii) regulatory institutions with adequate prudential regulation and supervision to check fraudulent and anti-competitive behaviour (eg. SEBI in India), (iii) institutions (fiscal and monetary institutions such as Central Bank) for macro-economic stabilization (eg. RBI in India), (iv) institutions for social insurance (such

as public provided social insurance programme in developed countries in 20th century particularly after Great Depression for which the State was known as "Welfare State" (eg. Old Age Pension provision to poor, SGRY in India), (v) institutions of conflict management (such as the rule of law, a high quality judiciary, representative political institutions, free election, independent trade unions, social partnership, institutionalized representative of minority groups and social insurance).

II

DEVELOPMENT OF INSTITUTIONS

The study on European colonization in America, Latin America, USA, Canada and other countries establishes a hypothesis that societies that began with more extreme inequality were more likely to develop institutions allowing much of the population only limited access to economic opportunities (Hoff: 2003; Sokoloff and Engerrnan: 2000). In societies with inequality at the onset of colonization, various institutions tended to evolve in manner that restricted access to political power and opportunities for economic advancement to a few elite through a range of public policies such as voting rights, secret voting, public schooling, distribution of public land and other natural resources, patent institutions and banking laws.

Besides having productive opportunities, development depends on being able to create a never-ending supply of new opportunities in the future. The contrast in industrialisation process in USA and Canada on the one hand and Latin American countries (elite Spanish settlement at the initial stage) on the other was due to the difference in degree of access to opportunities for social and economic advancement such as ability to own land, obtain schooling, borrow and innovate, social infrastructure including institutions and government policies. More access to these opportunities in USA and Canada made participation in investment and entrepreneurship for a broad segment of the population. (Ibid). Therefore, it is argued that high inequality at the onset of colonization through its effects on institutions provide one of the explanations for the divergence in the per capita income among the New World Economies.

Capitalism was discovered in the 19th century. It was made more productive during 20th century by supplying the institutional ingredients

of a self-sustaining market economy such as (i) central banking, (ii) stabilizing fiscal policy, (iii) anti-trust and regulation, (iv) social insurance and (v) political democracy.

During 1950s and 1960s, most of the developing countries became independent from the clutches of the colonial power. Successful example (high industrial growth, victory over Berlin, rapid development in science including space research) of USSR make the anti-market ideology popular among the national governing elites of these countries resulting in heavily state-centric development strategies. Mixed economy was also popular in European countries.

Upto 1970s, there was unprecedented economic growth of more than three dozen developing countries including India leading to substantial improvement in living conditions, though they followed import-substitution policies which worked pretty well. Due to oil shock of 1973, growth rate of these countries fell. But India continued to grow. There was no crisis in India. The economic collapse occurred in the countries who could not adjust macro-economic policies appropriately in the wake of external shocks. Since countries like India were quicker to adjust their macro-economic policies than other because of the ability of domestic institutions to manage distributional conflicts engineered by the external shocks of the period, there was no economic collapse in these countries.

In 1980s, "Washington Consensus" championing privatisation, deregulation and trade liberalization was popular. But market-oriented reform paid little attention to institutions. In 1990s, there was widespread discontent over the orthodoxy proposed by international institutions and multilateral agencies such as IMF and World Bank because of (i) failure of price reform and privatisation policies in Russian Federation, (ii) large scale disturbances and dissatisfaction with market-oriented reform in Latin American countries and (iii) East Asian financial crisis due to financial liberalisation without regulation. So, it was proved that "Washington Consensus" failed to deliver on its promise and; IMF and World Bank's conditionality on developing countries is ineffective and destructive, which was more exposed after the resignation of Joseph Stiglitz, publication of his book and award of Nobel Prize to him.

The lesson learnt from East Asian financial crisis is that domestic institutions (which are democratic) of conflict management are critical in containing the adverse economic consequences of the initial shocks

and the role of the government in managing economy is very important. The lesson learnt from the crisis in Russian Federation is that "Big Bang" policy reform (a sudden change in both economic and political institutions) is dangerous (Samal: 2005). "Gradual" reform as in China (no change in political institutions, partial and gradual liberalisation in the economy) is acceptable because the countries which are liberalising partially and gradually are best performing nations as they were tailored to preexisting institutions at home and therefore economised on institution building. Thus, it is argued that market-oriented reform strategies must recognise that institutions matter and altering existing institutions takes time and effort (Roderick: 1998,2001).

Thus, at the beginning of the 21st century, the advocates of US-style freewheeling capitalism have better understanding of the complementarities between markets and the state, a greater appreciation of the virtue of the mixed economy and proper realisation of the importance of the role of government in the economy. (Roderick: 2001)

III

INSTITUTIONS AND GROWTH

Besides economic institutions, political, social and, other formal and informal institutions affect growth. The conventional factors of production are land, labour, capital and organisation and that of growth are physical capital and financial capital. Gradually we have added human capital, natural capital and social capital to the literature of development. Economic Growth is also affected by the operation of underground economy which is more powerful in some developing countries (Samal: 1992). Performance measures for formal or informal institutions include (i) respect for contracts, (ii) property rights, (iii) trust and (iv) civil freedom. There are weak institutions in some countries because of (i) absence of rules, (ii) sub-optimal rules and (iii) poor performance of useful rules.

The quality of institutions, as evidence suggests (has a significant indirect relationship to growth via its effect on the volume of investment (Aron: 2000, Baro: 1996; North: 1990). Better performing institutions may improve growth by (i) increasing the volume of investment (eg. by eliminating bureaucratic red tap and rent seeking cost) and, (ii) improving the efficiency of investment (eg. by enforcing well-defined property rights). The promotion of social capital strengthening informal

institutions, it is argued, may positively influence growth both directly and indirectly. Of course, it is difficult to draw a definite positive conclusion on the links between growth and institutions (Ibid)

The lesson learnt in the 20th century is that successful development requires market underpinned by solid public institutions which (i) protect property rights, (ii) regulate market participants, (iii) maintain macroeconomic stability, (iv) provide social insurance and (v) manage conflict (Roderick: 2001). A variety of institutional set up could serve these functions, but any imported blueprints should be filtered through local practice and needs. Homegrown strategies, not imitation of US-style freewheeling capitalism imported by international rules and the loan conditionality of international financial institutions and multilateral agencies will help in economic development (Ibid). It is to be mentioned that advanced industrial countries owe their success to having developed their own workable models of a mixed economy. Therefore, developing countries need to fashion their brands and focus on domestic institutions building.

The empirical evidence suggests that the previous approach of World Bank to inducing policy and institutional changes in developing countries relied on conditionality was largely ineffective (Collier: 2001). An alternative approach is to empower the domestic constituencies to make change which is likely to be more effective in promoting institutional changes (Ibid).

IV

SOME INSTITUTIONS : HOW THEY AFFECT GROWTH IN INDIA

Analysis of the operation and working of some important institutions in India shows that the "quality" of the institutions rather than institutions per se is vital in the process of economic development.

1. Age-old Public Institution: Property Rights

Out of various types of property right we concentrate on "control" rights. When the balance of political power shifted in favour of poor and marginalised section in West Bengal in 1977, the government enforced a tenancy law that expanded the economic rights of tenants (around 20 lakh sharecroppers) by (i) giving an option of registration with the government, (ii) increasing their share of output on share-

cropped land from 50 per cent to 75 per cent and, (iii) providing them permanent inheritable tenure on the land they sharecropped. After this reform, annual growth in foodgrain production in West Bengal jumped from 0.43 per cent during 1968-81 to 6.97 per cent (compared to 2.36 per cent in all-India level) during 1981-92. The reform also increased sharecroppers' yields between 51 and 62 per cent. The tenancy reform explain; more than a quarter of the subsequent growth in agricultural productivity in West Bengal from 1979 through 1993.

In Orissa, upto 1991, a total of 203 fishing sources of the waterbody-Chilika were subleased to traditional fishermen through their 49 Primary Fishermen Co-operative Societies by CFCMS for traditional capture fishing. But due to 1991 lease policy and its subsequent modification in 1994, the whole fishery sources of the lake was divided into "capture" and "culture" at 60:40 ratio from 1st January 1992, earmarking 14,000 acres for non-fishermen, 6,000 acres for fishermen for culture fishing and the rest around 27,000 acres for capture fishing to fishermen. It is to be pointed out that around 20,000 acres out of 27,000 acres of capture sources were unauthorisedly utilised by non-fishermen for shrimp culture. Thus, due to change in lease policy allowing non-fishermen for shrimp culture, the annual fish/shrimp/crab landing from Chilika lake from capture sources fell drastically from around 7,000 tonnes in 1980s to 1,500 tonnes in 1990s. But when lease for shrimp culture in Chilika lake has been suspended from 1999, the annual landing has increased to around 11,000 tonnes. Thus, change in "control right" in the lake not only adversely reduced annual catch of the traditional fishermen but also brought redistributional change in the society adversely affecting the poor fishermen due to their partial occupational displacement, and environmental degradation of Chilika on which they depend for their livelihood (Samal: 2002a).

2. Private and Informal Institutions: NGOs and Social Capital

Privatisation of government functions particularly development activities was one of the conditions of IMF/World Bank for their loan to India, besides (i) devaluation of Indian Rupee, (ii) liberalisation of international trade and (iii) privatisation of public sector undertakings. The institutional approach (in contrast to technocratic approach) for poverty alleviation considers non-government organisations (NGOs) as essential and, as a substitute for inefficient governments in delivering

services to the poor. With the encouragement of World Bank and donor countries, NGOs activities are growing in the world.

But managerial competence and technical expertise of the NGOs in India are often weak. In some cases, their role is dubious and they are more corrupt than government agencies. Many depend heavily on external funding agencies of foreign countries; for which, sometimes, some of them play the role of an institution of neo-colonialist forces in this era of liberalization. NGOs are generally reluctant to divulge detailed accounts. They are not accountable to the public for any project or activity undertaken by them while the government is responsible and accountable to the people through periodic elections. But undertaking projects and spending on them without accountability are against the norms of a democratic society (Samal: 1998). They might be attractive since they appear to offer the possibility of a kind of democracy through popular participation, but without the inconveniences of contestational politics and the conflicts of values and ideas which are a necessary part of democratic politics.

If the government at the top is not efficient, there is need of decentralization of power with development functions of rural areas rested with local level institutions like Gram Panchayats, independent, autonomous co-operative societies, etc. after changing the structure of the rural society dominated by rural lords (Ibid).

There is increased prominence of social capital in Economics, particularly after World Bank emphasis on it. However, social capital is interpreted in many ways by various scholars. Putnam (1993, 1995) has popularised the term social capital. World Bank has defined social capital as "the informal rules, norms and long-term relationship that facilitate co-ordinated action and enable people to undertake co-operative ventures for mutual advantage". The most discussed concept of social capital is that which refers to the norms and networks that enable people to act, collectively (Woolcock and Narayana: 2000).

The social capital has cost as well as benefits. Larger social capital leads to greater risk sharing among villagers and act as an informal safety net. Second, greater social capital facilitates monitoring the performance of the government. Third, diffusion of innovations may facilitate by greater linkages among individuals. Its role is important for a number of development issues including environment management and checking the excessive exploitation of natural resources.

Social capital has also negative effects. It can exclude outsiders in a particular occupation. It can limit personal freedom particularly in small towns and villages. It also imposes crippling obligation, reinforces blind beliefs and superstitions, which are very orthodox in nature, and creates obstacle in economic and human development.

Social capital has come to play a significant part in the 'the anti-politics machine' that is constituted by the discourses of international development (Harriss: 2002). When social capital means 'norms and values of reciprocity and trust', there are some doubts (Ibid.). First, this interpretation brought non-governmental organisations and 'local associations' into sharp focus. But, these organizations, as mentioned earlier are not necessarily democratically representative. Thus, these organisations can best be termed as 'anti-politics machines'.

Second, assets are unequally distributed. Local associations may be dominated by powerful people who may use these organisations to further their interests. The Panchayati Raj System for participation of people in rural areas in India in past demonstrated this aspect very clearly. Moreover, 'social capital' for one group of people may constitute 'social exclusion' for others (eg. particular trade by a particular community in India).

Thus, the elaboration of the idea 'social capital' has mystified rather than clarified. It has mystified to good effects from the viewpoint of the protagonist of economic liberalisation and globalisation. The mystification serves the political purpose to depoliticise the problems of poverty and social justice by elevating the importance of 'voluntary associations' in civic engagement. Social capital has the effect of depoliticising and of disarming popular struggles for a more just distribution of resources and opportunities (Harriss: 2002). The concept also eliminates the role of government backed institutions in creating conditions for wider civic involvement.

Certain norms and traditions among indigenous communities in the sample villages in Keonjhar district (Samal: 2002b), though not scientific, help in protecting certain trees and in restricting access to forest for indiscriminate hunting. But, the system like purificatory rites, ostracisation, etc. is regressive. The strong social capital as -it is defined among the migrant communities (e.g. Muslim traders, Mahanta in Santarapur village, Gauda near Upper Raidiha village) is an instrument to exploit the indigenous community the tribal- through trading in forest

produces. Even the government-backed local organisations like Gram Panchayat are ineffective in checking illegal trade of forest produces including timber, NTFP, wild animals and birds by the trading community of the villages particularly in Santarapur, as these institutions are controlled by more powerful people from the trading community who utilise these institutions for fulfilling their own interests legally and illegally. The Gram Panchayat is controlled by two families from among the trading community in Santarapur village. Any community action in this village may not secure the rights of less resource-full people, even may go against their interest.

Hence building modem social capital may be an instrument of power and an aspect of class differentiation. On the other hand, in Upper Raidiha, where most of the inhabitants are Juangs– a primitive tribe, and where all are below poverty line and, where equal access to natural resources exists, there is no right to property such as land and no class and caste discrimination, strengthening social capital-particularly new components may help to improve their lot.

For checking deforestation and degradation of forest, and sustainable harvesting of timber and NTFP, the role of community of forest dwellers is far greater than that of the State Forest Department. The norms and traditions- their social capital helps in conservation of forest. In the sample villages, some norms, traditions, festivals, etc. help in checking forest degradation and in ecological balance of the area, which is related to the livelihood of the natives. It also helps in protecting wild animals. But due to acculturation, sanskritisation and modernisation on the one hand, and operation of market forces on the other, the norms and traditions in forest dwellers' community have been breaking down. Of course, some norms and traditions among them are outdated, regressive, inequitable, and based on blind belief, which hamper the development of an individual. The social capital in this sense is non-material, invisible. Thus the question arises, is it advisable to strengthen the various components of social capital of the forest dwellers? The answer is negative. Some of the norms and traditions are outdated, regressive, and based on blind beliefs which are obstacle to personal development. While these components may be discarded through deliberate public actions, the other beneficial components strengthening human values, trust and helping in preservation of forest and its environment could be strengthened and encouraged not by the

external agencies or by outside programme like JFM, but by public action or action of the community as a whole.

3. New Public Institutions in Liberalised Era: SEBI

Security Exchange Board of India (SEBI) facilitates the functioning of stock and securities exchanges of India and sees whether prudential norms are followed by the participants of stock exchanges. In spite of the operation of SEBI, there is price rigging and hot money movement by FIIs and other brokers. FIIs are entering financial sector in India and investing in the stock markets after liberalization in 1990s. When they feel that they can earn more, they disinvest the shares, take huge amount of foreign exchange out of the country. This does not help the "real sector". It also hampers the proper growth of our financial sector.

Sometimes, FIIs are also involved in dubious activities like price rigging. Bear hammering by FIIs was alleged in case of almost all companies in India tapping GDR market. The case of SBI and VSNL are most illuminating to show how FIIs manipulate domestic market of a country before its GDR issues (Samal: 1997). The share price of SBI continued to fall on heavy selling from the third week of July 1996 despite stronger fundamentals. Some FIIs, more particularly Hongkong-based Jardine Fleming were large sellers in the SBI scrips to flop its GDR issues by depressing its share price in domestic market because they failed to get the mandate for the SBI's $400 million GDR issues in the first week of October 1996 which was granted to Merrill Lynch and Lehman Brothers. This fact was also brought out by a preliminary investigation conducted by SEBI on the request of Ministry of Finance. But, as an institution, SEBI's power to bring stock exchange operation into order is proved to be limited.

The price of SBI scrips fell by around Rs.100 from Rs.333 on July 17, 1996 to Rs.239 on October 3, 1996 (the time of SBI GDR issue) within three months prior to its GDR issue loosing as much as 14 per cent on a day on BSE due to continuous beer hammering by FIIs. As a consequence, the SBI could command a lower premium (5-12 per cent) in a badly depressed market thus leading to higher equity component in the GDR issue.

The manipulation of FIIs working in collusion operates in the following way: First, they sell *en masse* and then when the price has been pulled down enough, pick up the same share cheaply in the GDR

market. Though FIIs have the freedom of entry and exit, they alone have the access to domestic as well as the GDR market but the GDR market is not open to domestic investors. Hence, FIIs gain a lot at the cost of domestic investors due to their manipulation which is possible owing to integration of Indian equity market with global market consequent upon liberalisation (Ibid).

In a similar way, the supervision of SEBI on security exchange is observed to be limited and ineffective in dealing with (i) various stock scams/ghotala relating to Ketan Mehta, Karad Back, etc. (ii) avoidance of Mauritius-based FIIs from paying capital gain taxes in India on income arising from sale of shares.

4. International Institutions/Multilateral Agencies: WTO/ IMF/World Bank

World Trade Organisation (WTO) gave stronger market orientation to agriculture by reducing export subsidies and converting all non-tariff barriers to tariff barriers and then steadily reducing tariff by about 36 per cent on an average. There is a provision regarding import of a minimum percentage of foodgrain by each member. WTO pressurise developing countries to reduce subsidies on agriculture but is unable to put enough pressure on USA and EEC countries to reduce their open and hidden subsidies to agriculture.

Due to these provisions, small and marginal farmers in India are not able to face the competition from multinationals. The world market in agricultural products is dominated by multinationals like Cargill and Continental Grain controlling around 45 per cent of world grain market. Rich farmers in India producing for export have tied up with multinationals so that they have started producing for advanced countries. Therefore, there has been consequent change in pattern of production and a move to commercialisation of agriculture which have caused a shift from crops locally demanded to the crops demanded in the world market such as BT cotton, tobacco, superfine rice including basmati rice.

This has caused fall in production and supply of foodgrains particularly of coarse cereals consumed by poor. Coarse cereal production in India has declined from 36.6 million tones in 1992-93 to 23 million tones in 1999-2000 and; foodgrain production as a whole from 212 million tones in 2003-04 to 200 million tones in 2004-05.

Similarly in Orissa, foodgrain production has almost halved in a decade from 72.3 lakh MT in 1991-92 to 35-55 lakh MT in 2002-03.

Rich and medium category farmers are interested to produce particularly BT cotton, basmati rice, tobacco for the world market. They invest heavily by borrowing from informal sector but without having proper knowledge of application of inputs like fertilizer, pesticides, irrigated water etc. So, sometimes, they fail to get a good harvest and commit suicide which we have seen 1990s particularly in the developed states like Andhra Pradesh, Maharashtra, Punjab, etc.

In a similar way, the conditions imposed by IMF and World Bank on India have adverse effects on some sectors of industry, agriculture, poor and underdeveloped regions.

5. Other Institutions

There are various other institutions which directly or indirectly affect economic growth. Large number of educational institutions (real and fake) particularly in technical education in private sector are coming up in 1990s, with scant regard for the quality. Political institutions should be robust for proper economic growth. But, in India, one has to bribe the legislators as recently to some MPs to ask questions in the Parliament. In Orissa, the number of sitting days in State Legislative Assembly is gradually declining year by year and; PRIs in Orissa are dominated by rural lords and controlled by the bureaucrats. Therefore, it is the quality of the institutions that matters.

CONCLUSION

- Various institutions tending to evolve as transformation in the economy takes place from feudalism to colonialism, capitalism, mixed economy / socialism, or globalization / neocolonialism.
- Institutions matter in economic development of a nation.
- Not only economic institutions but also political, social and other formal and informal institutions play a role in the process of growth.
- Role of underground economy which accounts around 40 per cent of the economy in India cannot be ignored.
- It is not institution *per se* but the "quality" of institutions which is very important in the process of economic development, as weak and poor institutions affect growth adversely.

- In the 21st century, there is realization about the virtues of complementarity of markets and state, mixed economy and the importance of the role of the government in the economy.
- Therefore, developing countries must focus on homegrown domestic institutions building rather than imitation of US-style freewheeling capitalism under the conditionality of international financial institutions.

REFERENCES :

Aron, Janine (2000), "Growth and Institutions: A Review of the Evidence", The World Bank Research Observer, Vol.15, No.1, February, Pp99-135

Barro, Robert J (1996); "Institutions and Growth: An Introductory Essay", Journal of Economic Growth, Vol. 1, No.1, Pp145-48

Beck, Thorsten et al (2001); "New Tools in Comparative Political Economy: The Database of Political Institutions", TWBRO, Vol.15, No.1, September, Pp.165-176.

Coballero, Ricardo J and M.L Hammour (2001); "Creative Destruction and Development: Institutions, Crisis and Restructuring" in Op cit, Pp 213-236.

Collier, Paul (2001); "Consensus Builders, Knowledge and Conditionality" in Boris Pleskovic and Nicholas Stem (eds), Annual World Bank Conference on Development Economics 2000, The World Bank Washington, Pp 67-83.

Harriss, John (2002): Depoliticizing Development: The World Bank and Social Capital, Left World, New Delhi.

Hoff, Karla (2003): Paths of Institutional Development: A View from Economic History", TWBRO, Vol. 18, No.2, Fall, Pp205-226.

North, Douglas (1990); Institutions, Institutional Changes and Economic Performances, Cambridge University Press, New York

Putman, Robert (1993); Making Democracy Work: Civic Traditions in Modern Italy, Princeton University Press, Princeton, New york.

Putman, Robert (1995); "Bowling Alone: America's Declining Social Capital", Journal of Democracy, V 01.6, Pp-65- 78.

Rodrick, Dani (1998); "Why do More Open Economics Have Bigger Governments",Journal of Political Economy, Vol.106, No.5, Pp.997-1032.

Rodrick, Dani (2001); "Development Strategies for 21 sl Century", in Pleskovic and Stem (eds) Op cit, Pp85-108.

Sokoloff, Kenneth L and Stanley L Engerman (2000); "History Lessons: Institutions, Factor Endowments and Paths of Development in the New World "Journal of Economic Perspective, Vol. 14, No.3. Pp 217-32.

Sarnal, Kishor C (1992); "Chasing Black Money in India" in Journal of Indian School of Political Economy, Vol. 4, No.2, April-June, Pp319-329.

Sarnal Kishor C (1997); "Emerging Equity Market in India: Role of Foreign Institutional Investors", Economic and Political Weekly, Vol.32, No.42., Pp 2729-2732.

Sarnal Kishor C (1998); "Poverty Alleviation after Post-Liberalisation: Study of a Tribal Block in Orissa, Economic and Political Weekly, Vol.33, No.28, July 11-17, Pp 1846-1851.

Sarnal Kishor C (2002); "Shrimp culture in Chilika La_e: Case of Occupational Displacement of Fishermen", Economic and Political Weekly, Vol.37, No.8 May 4 10, Pp 1714-18.

Sarnal Kishor C (2005); "Transformation of Enterprises in Russia", Journal of Entrepreneurship, Vol.14, No.1, Pp 21-37.

Woolcock, Michael and Deepa Narayan (2000); "Social Capital: Implications for Development Theory, Research, and Policy", TWBRO, Vol.15, No.2, August, Pp225-249.

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Banking Sector During Reforms Period : Insights from Selected States in India

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THE BACKDROP

One of the major objectives of India's development strategy has been widespread expansion of financial institutions so as to mobilize adequate resources to meet the emerging needs of the economy. In this context, banking sector is expected to play a vital role by ensuring timely and adequate credit disbursements to the productive units.[1] Allocation of credit for various developmental purposes through priority sector lending can smoothen persisting economic disparities across regions and likely to improve overall growth in employment. But it is during the reforms period when skepticism has arisen about the role played by the banking sector partly because of disquieting trend of some of the macro economic indicators and inadequate weight assigned to social aspect of banking. The emergence of this trend seems to violate basic goals of nationalization of commercial banks. Against this backdrop, the present paper makes an attempt to examine the role of commercial banks in the process of economic development in various categories of major states during the pre-reforms and reforms period with focus on selected states. In order to capture the role of commercial banks at the decentralized level especially in underdeveloped states, the study has focused on Orissa.

1. The banking sector comprises Public Sector Banks, Foreign Banks, Urban Cooperative Banks, Private Sector Banks, Regional Rural Banks and Co-operative Banks.

The paper is organized as follows. In section I an attempt is made to present an overview of performance of commercial banks in India and the need for introduction of financial sector reforms. The performance of certain banking indicators in different categories of majors states and in selected states during the pre-reform and reform periods have been captured in section II. Section III is devoted to examine performance of commercial banks in Orissa especially at the district level. In section IV an attempt is made to construct Banking Development Index across districts in Orissa during the last decade. Summary and conclusion follow in the last section.

SECTION - I

PROGRESS OF COMMERCIAL BANKS IN INDIA: AN OVERVIEW

Prior to economic reforms introduced in 1991, Indian banking and financial system made commendable progress in extending its geographical spread and functional reach but it failed to cater to the economic needs of the community. There was absence of banking facilities for the large segment of the population. The money lenders also used to charge exorbitant rates of interest on loans.

This, in turn, motivated the planners to introduce a scheme of social control in early 1968 with the aim of changing the lending pattern by directing increasing volume of credit flow to the desired sectors and making banks an effective instrument of economic development.[2] Identifying slow progress of the banking system in achieving societal goals through the scheme of 'social control', nationalization of 20 major banks was initiated to hasten the pace of branch banking and to smoothen regional disparities. Overall, banking sector during the pre-reforms period achieved commendable progress as reflected by the growth of financial savings and fulfillment of the credit requirements of the borrowers especially in agriculture and small scale industry (Narasimham, 1991).

In contrast, there has been decline in productivity and efficiency, and erosion of profitability of the banking sector. This is partly on account of lower interest rate charged by the commercial banks for directed investments and directed credit programmes, rise in expenditure on account of fast and massive expansion of branches, inadequate progress in updating work technology and weaknesses in the internal structure of the banks.[3] There was prevalence of complex structure of

administered interest rates which was guided by social concerns (Reddy, 2005). This resulted in cross-subsidization and distorted interest rate mechanism and affected viability and profitability of the banks. It needs to be mentioned that prior to financial sector reforms, the banking sector was essentially trying to fulfill the plan development requirements. Huge developmental expenditure was fulfilled through various methods, namely, government's dominance of ownership of banks, automatic monetization of fiscal deficit which in turn is associated with large pre-emption on account of Statutory Liquidity Ratio and Cash Reserve Ratio (Reddy, 2005).

CONTOURS OF REFORMS IN BANKING SECTOR

The major objective of reforms was to create an enabling environment to overcome the external constraints, namely, high levels of pre-emption in the form of reserve requirements, administered interest rates, and credit allocation to certain sectors (Reddy, 2005).[4] As mentioned, on account of higher level of SLR and CRR, a large amount of resources was pre-empted during the pre-reforms period. However, over the years there has been decline in both the SLR and CRR. Similarly, identifying the need for interest rate deregulation so as to impart greater efficiency in resource allocation, the banking sector has initiated steps to address this issue. The interest rate is largely deregulated except for certain specific classes, i.e., savings deposit accounts, Non-Resident Indian Deposits, small loans up to Rs 2 lakh and export credits.[5] Similarly, in the regulatory framework and supervision practices, introduction of Capital to Risk Assets Ratio (CRAR) and maintenance of separate Investment Fluctuation Reserve (IFR) out of profits so as to meet interest rate risk, are two major steps taken by the banking sector. The CRR is kept at 9 per cent and this is one per cent above the international norm. It is during the pre-reforms period, a major share of financial intermediation was accounted for by the public sector and therefore, there was a need for diversification so

2 The scheme of social control over banking was introduced in 1968 with the major objectives of achieving a wider spread of bank credit, preventing its misuse, directing large volume of credit flow to the priority sectors and making it a more effective instrument of economic development.

3 In other words, the interest rate was lower than the prevalent market rates or what the banks could have earned from alternate deployment of funds.

as to improve efficiency and market accountability. Over the years the public sector dominance has come down. For instance, the share of public sector banks in the aggregate assets of the banking sector has slipped to 75 per cent in 2004 as compared to 90 per cent in 1991. 'The share of wholly government owned public sector banks (i.e., where no diversification of ownership has taken place) sharply declined from about 90 per cent to 10 per cent of aggregate assets of all Scheduled Commercial Banks (Reddy, 2005)'. The fifth major issue confronted by the banking sector was to improve productivity and efficiency. To improve efficiency and productivity in the banking sector the reform process has resorted to injection of competition and challenges. Based on this, twelve new private sector banks have been set up since 1993. Further, there has been a decline in government share holding in public sector banks to 51 per cent, implying improvement in share of private share holding in public sector banks. To improve competition, foreign direct investment in the private sector banks is allowed up to 74 per cent, provided the guidelines issued from time to time are fulfilled. Besides, to sustain adverse shock and meet the challenges, 'consolidation' was introduced in the banking sector. In the present context, it needs to be mentioned that consolidation process also encompasses the Development Financial Institutions (DFIs). The banking sector reforms also addressed institutional and legal reforms. This is reflected by steps taken to set up Board of Financial Supervision (BFS) in 1994 so as to ensure supervision. In this backdrop an attempt is made to examine overall performance of commercial banks in India, various categories of major states and selected states especially in achieving societal goals which was emphasized while introducing nationalization of commercial banks.

SECTION - II

KEY INDICATORS OF BANKING AND DEVELOPMENT

Growth of Branch Network

The extent of mobilization of deposit and disbursement of credit for productive purposes are determined by concentration of number of office in a region/state. The 'number of office in India went up by 34,500

5. Administrative interest rates are still in operation for small savings scheme of the Government.

(from 32,500 to 67,200) during 25 years since nationalization of commercial banks till date (1980 to 2004), implying an annual average rise of close to 1,400 per year. However, the growth of branch network has declined during the reforms period as compared to pre-reforms period. The annual average compound growth of offices in India declined from 5.1 per cent witnessed during Pre-Reforms period (1980-91) to 0.8 per cent during Reforms Period (1992-2003). Alternatively, though concentration of SCBs in India witnessed a massive growth during the post-nationalisation period. The rate of growth was lower compared to the pre-reform period. It is seen that the number of offices per 1000 sq. km. went up by 6 units (11 to 17) in India during 1981-91 while it increased by 2 units during 1991-2001. Second, the decline in growth of office during reforms period is pronounced in rural area as compared to urban and semi-urban area while metropolitan area witnessed massive growth of offices during the reforms period. It seems, a tendency to exit from rural area and inclination to enter metros has emerged in recent years. This is noticed despite the general argument that cost of deposit is relatively low in rural area as the people prefer savings A/C deposit and withdraw money less frequently, In contrast, bulk of deposit comes from the salaried class in metros and the customers used to withdraw money frequently.

One of the interesting feature emerged is the concentration of office in the middle income states. In other words, contrary to the perception of high concentration of office in rich (high income) states, it is the middle income states which attracted bankers to expand the branch network. At the other end, the low income states failed to motivate the bankers to accelerate expansion of branch network despite its vital role in those states. This is pronounced in Orissa. Further, there has been almost no change in concentration of offices in Orissa during the reforms period, especially during the 1990s.

In order to analyse the urban centric growth of office certain crucial issues need to taken into account. The RBI gave up bank expansion programme in April 1995. Therefore, the number of SCB's rural office steadily declined from 32,981 in March 1996 to 31,999 in September 2004 (Shetty, 2005). Besides, since 1996, Banks having three year profitability record and non-performing assets below 15 percent can be allowed to open new branches. Certain other requirements include Capital Adequacy Ratio (CAR) of 9 percent and minimum owned fund requirement of Rs.100 crore. It may be difficult to achieve for a

number of PSBs. In addition, buoyancy in service sector might have been attracted the bankers to expand branch network in Metropolitan area in the reforms period.

Population Served per Office

The slow growth of office during the reforms period can have serious ramifications, especially increase in work load per office, growth in mobilization of deposit and disbursement of credit. There has been a sharp decline in work load of the employees during the 1980s as population served per office declined by 5,000 during the said period. In contrast, a rise in population served per office is noticed during the 1990s as evident by rise of 1,000 number of people in the said period. As regards Orissa, population served per office declined by 12, 000 units during the 1981-91 while it went up by 1,000 units during the reforms period. The increase in population served per office can be to some extent on account of growth of banking sector during the reforms period as reflected by improvement in banking development index score, shift of traditional banking to retail banking, improvement in saving attitude of the households to meet unforeseen expenditure and ensure old age security.

Pattern of Deposit

One of the major objectives of bank nationalization is to mobilize adequate resources so as to meet the expenditure needs of the economy. The deposit mobilized by commercial banks is determined by a number of factors including per capita income, generation of income from various sources, level of development and so on. It is noticed that there has been acceleration in growth of SDP in various states during the reforms period, implying overall improvement in deposit-SDP ratio. But nominal growth of per capita deposit noticed in India during 1981-91 is lower than that of 1991-2001 with wide variation across the states. It is only the middle income states which witnessed acceleration in nominal growth of deposit during the reforms period as compared to pre-reforms period. Contrary to it, both high income and low income states experienced decline in growth during the reforms period. In this context, slow growth of office and variation in level of inflation are to be considered.

To discount the role of variation in growth of population across the states, a comparative analysis of per capita deposit across states has been undertaken. No doubt, in per capita deposit, high income states

outweighs middle and low income states with high margin primarily on account of variation in level of income. For instance, in 2001 per capita deposit in high income states is marginally higher than 3 times than that of low income states. Similarly, among the selected states, per capita deposit in Maharashtra is much higher than that of high income states while per capita deposit in Orissa is not only lower than that of low income states but also lower than that of national average.

Deployment of Credit

The extent of disbursement of credit is determined by the level of accumulation of deposit but not proportionately. It is also seen that mismatch between per capita deposit between middle income states and Karnataka is not very high in 2001 but wide disparity in per capita credit between the said states is noticed in the same year.

A comparative analysis of growth of per capita deposit and per capita credit during pre-reform and reform periods depict a distinct pattern. As per data we see that there has been a decline in nominal growth of per capita deposit during the reforms period as compared to pre-reforms period barring middle income states especially Karnataka. Similarly, there has been decline in growth of per capita credit during the reforms period as compared to pre-reforms period barring high income states which witnessed improvement in growth of deposit. But the extent of decline in growth of credit during the reforms period is much higher than that of deposit implying erosion in CD ratio. This is noticed especially in the low income states. No doubt there has been marginal decline in CD ratio in 1991 as compared to 1981 in India and Maharashtra while other states witnessed improvement in growth. In contrast, erosion in CD ratio is noticed in the selected states barring Maharashtra during the reforms period. The extent of decline is pronounced in low income states especially in Orissa.

Migration of Credit

The extent of credit utilized in a specific region may not match with the amount of credit disbursed in the same region. There can be mismatch between utilization of credit and credit disbursed leading to out-migration in-migration of credit from one region to another. It is interesting to learn there has been immigration of credit to Orissa implying improvement in utilization of credit. In contrast, western region witnessed net out-migration of credit.

ALLOCATION OF CREDIT FOR VARIOUS OCCUPATIONS

A substantial change in the allocation of credit for various occupations is noticed across states during the last decade. In the pattern of allocation of credit for various occupation a shift from agriculture to personal loans is noticed in Orissa during 1995-2004 (charts 1 & 2). There has .been a fall in allocation of credit to agriculture by 9 percentage points (20 per cent to 11 per cent) during the said period despite a majority of total population depending on agriculture. Similarly, share of industry in total also declined by 6 percentage points (33 per cent to 28 per cent) during the same period. In contrast, percentage share of personal loans went up from 15 per cent to 37 per cent during the said period. It is surprising to learn that a rich state like Maharashtra allocates about 4 per cent of total credit to agriculture.

The findings of primary survey conducted in Ganjam and Phulbani districts reflect that the demand for credit by farmer borrower is not fully met by the commercial banks (Mishra, 1996). As per utilization of credit, it is noticed that farmer borrowers in the sample selected areas of 2 districts had not fully utilized the credit for the purpose for which it was sanctioned by commercial banks. The shortfall in the utilization of credit by farmer borrowers was ascribed to non- availability of consumer loans from banks, inadequate and irregular supply of inputs and decline in agricultural production due to severe drought. Ganjam being one of the agriculturally advanced districts provided better opportunity for utilization of credit in agriculture as compared to Phulbani district which is agriculturally less advanced.

In analyzing the impact of credit on employment and output it is noticed that this is relatively high for the farmer borrowers. The farmer borrower experienced higher percentage change in output, income and employment between pre-loan and post loan periods. The provision of credit has encouraged farmer borrowers to concentrate more on agricultural activities. In other words, farmer borrowers got an access to farm inputs, agricultural implements and extension facilities through which they could be able to generate more output, income and employment in agriculture in the post loan period.

The major problems faced by borrowers and non-borrowers to undertake agricultural activities include inadequate supply of credit, non-availability of credit on time and in adequate quantities, problem in

marketing, lack of irrigation and problem of storage of output. Similarly, the commercial banks face the problem in meeting the target, delayed release of subsidies by the government, poor recovery of loans and decline in profit.

Chart 1

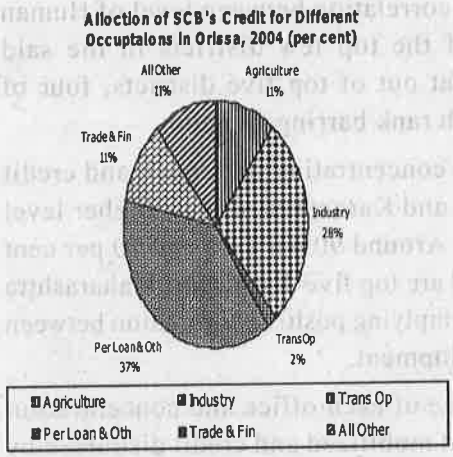
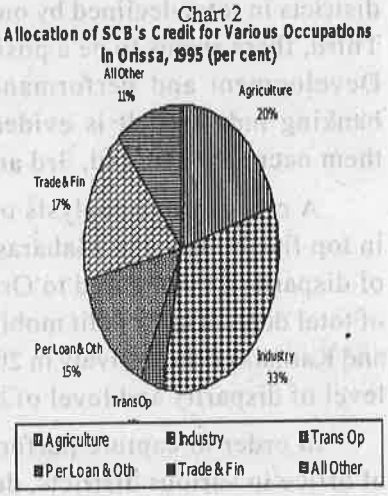


Chart 2



SECTION - III

PERFORMANCE OF COMMERCIAL BANKS IN ORISSA

The overall performance of commercial banks in the state is not quite promising as compared to a middle income state, Karnataka or high income state, Maharashtra. The state has occupied one of the lowest positions in the banking development index ladder. Again, persistence of wide disparity is noticed at the decentralized level. The level of disparity is pronounced in per capita credit as compared to per capita deposit in 2001. The coefficient of variation in per capita deposit is 78 per cent while the corresponding figure for per capita credit is 90 per cent in 2001.

The disparity in mobilization of deposit and credit across the districts is also evident from the data. For instance, the share of top five districts accounts for 54 percent of total deposit, 52 per cent of total credit and 34 per cent of total office in 2004. This implies that around 46 per cent of total deposit is mobilised by 66 per cent of office in the state. In this context, it needs to be mentioned that geographical area of top five

districts together constitutes 17. 3 per cent (27,013 sq. km) of total geographical area of the state (155707 sq km). The second crucial issue that needs to be elaborated is slow decline in the share of top five districts in deposit mobilization and credit disbursement during the last one decade (1995 – 2004). The share of deposit and credit of top five districts in total declined by only 3 percentage points during 1995-2004. Third, there seems to be a positive correlation between level of Human Development and performance of the top few districts in the said banking indicator. It is evident that out of top five districts, four of them occupied 1st, 2nd, 3rd and 5th rank barring Ganjam.

A comparative analysis of the concentration of deposit and credit in top five districts in Maharashtra and Karnataka reflects higher level of disparity as compared to Orissa. Around 90 per cent and 70 per cent of total deposit and credit mobilized are top five districts of Maharashtra and Karnataka respectively in 2004, implying positive correlation between level of disparity and level of development.

In order to capture performance of each office and concentration of office in various districts, deposit mobilized and credit disbursed by each SCB's office and office per 1000 sq km have been estimated which shows that around Rs10 crore are mobilized by each office in the state in 2004 while about Rs 5 crore are utilized in the form of credit implying CD ratio of about 54 per cent. This reflects that there is enough scope to improve CD ratio by increasing the disbursement of credit.

It is interesting to learn that disparity in mobilisation of deposit and disbursement of credit per office has gone down in the state during 1995-2004. In credit per office, the level of disparity across the districts has come down by 8 percentage points (from 56 per cent to 48 per cent) while in deposit per office the extent of variation fell by 14 percentage points (from 58 per cent to 44 per cent) during the above said period. This is reflected by fall in level of concentration in CD ratio from 39 to 24 per cent during the said period.

Among the districts, Khurda retained the first rank in deposit per office (Rs 24 crore), credit per office (Rs 15 crore) and office per 1000 sq km. (73) in 2004. This is partly on account of location of state capital Bhubaneswar and concentration of Industry in Mancheswar Industrial Area. But in CD ratio, Bargarh (89 per cent) outweighs other

29 districts partly due to location of few industries in the district. In contrast, Deogarh and Boudh are at the rock bottom level in deposit per office and credit per office.

In the concentration of office per 1000 sq km. the variation across the districts seems to have been aggravated to some extent as reflected by rise in Coefficient of variation from 90 per cent to 102 per cent during 1995-2004. This can also be due to slow growth in office (4 percent) during the said period with wide variation across the districts. For instance, Khurda witnessed maximum growth (28 percent) in office during 1995-2004 partly due to state capital (Bhubaneswar) being located in this district. Similarly Cuttack which is one of the oldest cities, former state capital, and a developed district has also witnessed acceleration in the expansion of branch network. In contrast some of the backward districts, namely Gajapati, Balangir, Kandhamal and Sonepur have witnessed fall in growth of office per 1000 sq km.

The disparity is also noticed across blocks classified based on the level of development. The findings of primary survey undertaken in few drought prone blocks of Ganjam and Phulbani indicates that geographical coverage and functional spread of Commercial Banking activities in the said areas are quite encouraging (Mishra, 1996). The banking activities are more active in a relatively developed Ganjam district than Phulbani. Similarly, banking activities are relatively widespread in the developed (Suruda block Ganjam and Phulbani block of Phulbani district) block of the two districts but not in backward blocks (Chikiti in Ganjam & G. Udayagiri in Phulbani).

SECTION - IV

LEVEL OF BANKING DEVELOPMENT ACROSS DISTRICTS IN ORISSA

In order to find out the level of banking development across districts in a particular state, a development index has been constructed by taking into account seven indicators. In the present exercise, UNDP's development index method has been used for aggregating the chosen indicators.

The level of Banking Development Index (BDI) is constructed in three stages. First, the extent of deprivation a district suffers with respect to each of the indicator has been estimated. To get an index of

deprivation, the level of deprivation of each district with respect to a specific indicator is divided by the difference between the maximum and minimum values of the same indicator.

If 'I ij' is the deprivation indicator for the 'jth' district with respect to 'ith' functioning then it can be defined as

$$Iij = (Max\ i - Xij) / (Max\ i - Min\ i)$$

The second step is to construct average deprivation index which needs simple average of all the indicators.

$$Ij = \sum_{i=1}^{n} Iij / n$$

where 'n' is the indicators (variables) chosen to construct the index

Then Banking Development Index is defined as absence of deprivation. In other words

$$(BDI)j = \left(1 - \sum_{i=1}^{n} Iij / n\right)$$

In this framework, inter-temporal comparison is not feasible as the maximum and minimum values are defined at a point of time, which gets changed over time (Datta B et. al.: 1997)[6]. In order to correct the deficiency, Human Development Report suggest to use global maximum and global minimum which are defined over a period of time instead of at a point of time.

To analyse levels of development achieved by different districts, changes in the status of the districts and extent of improvement over time, the districts have been classified into four categories, namely, highly developed, developed, moderately developed and less developed.

It is observed that the index value of various districts remains between 0.067 to 0.926 over the period. The index score of a majority of the districts remains below 0.4. For the sake of simplicity the banking development index score of the districts having index score less than or equal to 0.2, greater than 0.2 but less than 0.3, higher than 0.3 but less than or equal to 0.4 and above 0.4 are classified as less developed, moderately developed, developed and highly developed respectively.

As mentioned, seven development indicators have been taken into account to construct the composite Banking Development Index. To make the figures comparable across states, suitable deflators have been used. The indicators chosen for the study are as follows:

(i) population served per office;
(ii) Number of office per 1000 sq km;
(iii) Per capita deposit;
(iv) Deposit per office;
(v) Credit amount outstanding per office;
(vi) Per capita credit amount outstanding; and
(vii) Credit-Deposit ratio

It needs to be mentioned that except the first indicator, an increase in value of other indicators reflect improvement or better performance of the commercial banks. To ensure homogeneity in data, the reciprocal value of the first indicator has been taken into account. The level of achievement and extent of improvement in the banking development index show that there has been overall improvement in the banking development index in the state during 1995-2004. This is noticed for 27 districts as three districts witnessed deterioration. But it is surprising to learn that the level of disparity in level of banking development widened in 2004 as compared to 1995. Among the districts, Khurda retained the first rank while some of the undivided KBK districts are at the rock bottom level.

The classification of districts based on the index score reveals that, a majority of the districts (23) remained in the less developed category in 1995 and none of the districts is in the developed category . However, a large number of districts from less developed category moved to moderately developed category in 2004. Similarly, some of the districts which are in the moderately developed category in 1995 moved to developed category in 2004. For example, there has been deterioration in the level of banking development in Sonepur (movement from moderately developed to less developed) while Cuttack witnessed improvement (from moderately developed to highly developed) during' 1995-2004.

SUMMARY AND CONCLUDING OBSERVATIONS

To sum up, the performance of commercial banks has undergone noticeable change over time. The emergence of urban centric growth in both number of office and deposit, decline in allocation of credit for agriculture and sharp erosion in CD ratio as noticed in the reforms period indicate that performance of SCB's in achieving societal goals does not seem to be quite promising during the reforms period. Among the selected states, Maharashtra outweighed other states in certain banking parameters, namely per capita deposit and per capita credit but in population served per office Karnataka seems to be much ahead of others. On account of relatively higher concentration of office, the level of disparity across the districts is pronounced in Maharashtra followed by Karnataka and it is relatively low in Orissa.

In the banking development index there has been overall improvement during the last one decade (1995-2004) but the extent of disparity across the districts widened during the reforms period. There is enough scope for improvement as two-thirds of total districts are in the less developed and moderately developed categories. There are only two districts which remained in the highly developed category in 2004. Needless to say, there is an urgent need to take cognizance of the said issues so as to correct the ailment at the earliest.

REFERENCES :

Datta B etal (1997): 'Human Development in India', IGIDR, Mimeo.

Mishra, S N(1996): Role of Commercial Banks in Promoting Agricultural Development in Orissa: With particular reference to Hilly and Drought Prone Areas of Ganjam and Phulbani Districts,

Research Project, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar.

Narasimham, M (1991): Report of the Committee on the Financial System, November.

Reddy, Y V (2005): 'Banking Sector Reforms in India', Reserve Bank of India Bulletin, June.

EPWRF (2005): Metamorphic Changes in the Financial System, Special Statistics-38, Economic and Political Weekly, March 19-25, Vol. XL, No.-2.

APPENDIX TABLES

Table - 1

SCB's Office per 1000 sq. km.

S.N.	States	1981	1991	2001	2004
1.	High Income	14	19	22	25
2.	Maharashtra	12	19	20	21
3.	Middle Income	18	29	32	32
4.	Karnataka	15	23	23	26
5.	Low Income	8	16	17	17
6.	Orissa	6	14	14	15
7.	All India	11	17	19	22

Source : RBI (2004) : Basic Statistical Returns, Reserve Bank of India (various issues).

Table - 2

Population Served per SCB's Office (in 000's)

S.N.	States	1981	1985	1991	1995	2001
1.	High Income	15	12	12	13	13
2.	Maharashtra	17	14	14	15	15
3.	Middle Income	16	13	13	13	17
4.	Karnataka	15	23	23	26	
5.	Low Income	13	10	10	11	11
6.	Orissa	27	17	15	16	16
7.	All India	19	na	14	na	15

na : not available.

Source : RBI (2004) : Basic Statistical Returns, Reserve Bank of India (various issues).

Table - 3

Per Capita Deposit and Credit of SCB's (Rs.)

Sl. No.	States	1981		1991		2001	
		Deposit	Credit	Deposit	Credit	Deposit	Credit
1.	High Income	1073	711	4148	2647	15374	10488
2.	Maharashtra	1209	945	4855	3511	17805	15379
3.	Middle Income	590	427	2309	1676	9370	3766
4.	Karnataka	550	410	2174	1719	10358	6314
5.	Low Income	284	148	1253	623	4709	1561
6.	Orissa	178	123	875	605	4095	1648
7.	All India	591	393	2370	1467	9230	5237

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Institutional Alternatives in Dairying : The Case For Co-operatives

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INTRODUCTION :

Of late economists have recognized the crucial role of institutional arrangements in society for economic development. They interpret economic institutions in at least two ways: as formal and informal rules and as organizations and power relationships. Institutions can be government and quasi and non-government institutions. They function differently and many of them are dysfunctional in terms of development. Institutions in the form of organizations are vital to the development of any sector. In an important sector like dairying in the Indian economy the co-operative institutions have historically played a decisive and determining role in initiating, promoting and expediting growth. In this paper an attempt has been made to anaylse the imperatives of co-operatives for the all round development of the dairy sector. The paper is organized in five sections. Section-I being introductory, introduces the research problem. Section-II deals with the institutional alternatives in the dairy sector. The cooperative form of dairy institutions, their evolution, operational mechanism, progress and imperative for the development of the dairy sector are presented in this section. Section-III discusses the lessons from a micro level survey of dairy cooperatives. A summary of the observations is presented in Section-IV.

Dairy development has been an effective and important instrument of rural development in India for generating opportunities of self employment for rural families, for increasing the income levels of rural landless, marginal and small farmers and for providing the much needed

nutrition to the rural people. Compared to other agricultural activities, the inherent qualities of dairying such as relative stability in yield and price, round the year regular cash inflow, utilization of family labour, use of crop residues as cattle feed and the complementarity with crop production, make this sector form a stable foundation for rural development.

Indian dairying has no match in the world. According to the livestock census 2003 the cattle population of the country is 185.18 million with 64.51 million adult female cattle. The buffalo population is 87.92 million and the number of adult female buffaloes is 50.97 million. The total bovine wealth of India has crossed 283.1 million. In spite of such a huge bovine population the total milk production of India is far from satisfactory. It is only 88.08 million tons in 2003-04 and the per capita availability of milk is 231 gms/day, which is much less than that of the developed countries.

The dairy development scenario of Orissa, like most parts of the country, is a bit slow. The livestock rearing in the state has been a complementary avocation to agriculture, dominated by the need for drought power and manure for crop production. For the cattle owners milk production has traditionally been a subsidiary motive. Though Orissa has better soil, more rainfall and huge bovine wealth, the total milk production of the state is far below the national average. The milk production of Orissa is only 1.13% of total milk production of the nation and the per capita milk availability of the state is a meager 71 gms per day against the national average of 231 gms.

The traditional methods of milk production and manufacture of milk products are unhygienic and wasteful. Even today dairy production is mostly in the small scale sector which operates without any idea on the principles of economic dairying and the laws of hygiene and sanitation. The supply of milk is inadequate in amount and deficient in quality. The demand supply mismatch in the dairy sector is reflected in rising prices of milk & milk products and unless effective corrective measures are implemented milk may become a luxury for the poor and middle class people in not too distant future. The milch cattle are poor milkier due to lack of scientific breeding, want of proper feeding tending & housing and inadequate vaccination coverage and health care. Lack of processing infrastructure and organized marketing facilities are the other constraints on the development of the dairy economy. By far the

most important bottleneck is posed by an inadequate and in appropriate institutional set up.

ALTERNATIVE INSTITUTIONAL STRUCTURES

Institutional arrangements provide the basic foundation and therefore play a vital role in the process of sectoral development of an economy. In the dairy sector India's experiment with institutional structures is really uncommon. It comprises the urban-based cattle colonies, commercial dairies, cooperatives, city milk schemes, government departments and the unorganized private sector. Broadly speaking, India's dairy economy has three competing institutional structures, namely the private sector, government departments and cooperatives.

2.1 The Private Sector

The private sector has two constituents– the unorganised and the organised segments. The unorganised segment includes millions of milkmen; milk contractors; collection, marketing and commission agents; vendors and shops. It provides mainly conventional products like milk, curd, khoa, cheese and ghee to households and institutional consumers at their doorsteps and enjoys competitive advantage on account of flexibility in pricing and business policy. However, its operations are not subject to any regulatory cover in respect of quality and price of produce and terms and conditions of business. The other segment consists of private commercial companies e.g., Nestle India Ltd., Prithviraj Dairy, Highway Dairy, Navjeevan Dairy etc. which undertake collection of milk from the farmers, processing activities and supply of milk and milk products to the customers. Though some of the commercial dairies deal with packed fluid milk, most of them are confined to high value milk products like chocolates, packed butter, skimmed milk powder etc. and cater essentially to the needs of the urban elitist consumers. Besides they may not purchase the whole of milk supply from the farmers and are irregular buyers and sellers of milk and milk products. Since they mostly use capital intensive technology, their contributions to primary employment generation is marginal. It is also alleged that they exploit the farmers by paying lower prices in the winter. Needless to say, the private sector makes substantial economic gains for a few without any social commitment even in terms of investment in dairy infrastructures.

2.2 The Government

The government milk scheme operates through the animal husbandry development department run goshalas and primary milk producer's societies. In the goshalas cattle are bred and reared and milk & traditional milk products are prepared & processed and sold to consumers directly. The animal husbandry department also initiates the formation of primary milk producers' societies and establishes chilling plants; dairy, fodder development and cross breeding farms; frozen semen banks and artificial insemination centers for procurement & processing of milk, provision of cross breeding, supply of fodder & animal health care and sale of milk & milk products to the consumers. The government milk scheme suffers from the same defects as the other government departments like inefficiency, red-tapism, corruption, excessive political interference & closure and is a proven failure.

2.3. The Co-operatives

The modern concept of dairying which denotes an organized way of producing, processing and marketing of milk and milk products owes a great deal to the development of dairy cooperatives in the country. These cooperatives do not deny the state's ultimate responsibility in developing animal husbandry and dairying but at the same time recognize the difficulty on the part of the state machinery to deal directly with several hundred thousands of individuals engaged in these activities.

2.3.1 Evolution

The dairy cooperative movement in India has a fairly long history. Efforts for organizing the dairy sector on cooperative lines in different parts of the country were made immediately after the enactment of the Cooperative Societies Act, 1912. In the initial stages three different types of dairy cooperatives were established viz., consumers' societies, distributors' cooperatives and producers' cooperatives though ultimately only the producer's cooperatives found patronage & encouragement. and could survive and grow.

Real progress in the dairy cooperative movement started only after independence. Phenomenal growth of towns and cities, expansion of industrial centers and their rising demand for milk and milk products created a congenial climate for the development of cooperatives. The

legitimate legal support to the promotion of dairy cooperatives was provided by the recommendations of R. Kothavalla, Dairy Development Advisor to Government of India (1947), the Expert Cattle Committee of Bombay (1947), the Working Group on Dairy and Animal Husbandry Cooperatives (1962), The All India Rural Credit Review Committee (1969) and the Plan provisions of keeping the dairy industry in the priority sector list.

The cooperatives in India's dairy economy, as we see them today, are based on the cooperative principles and practices developed by the Kaira District Cooperative Milk Producer's Union (1946) at Anand, Gujarat and its extension in the form of Operation Flood – I launched from July, 1970. The success of Operation Flood-I encouraged its expansion to other states in the country in the name of Operation Flood-II which was launched in 1980-81 and Operation Flood – III brought into action in 1985-86 with a greater spread. The credit for the triumphant victory of the Operation Flood Programmes goes mostly to Dr. Verghese Kurien, the chief architect of the Anand Model.

2.3.2. Operational Mechanism of the Dairy Cooperative Institutions

The dairy cooperative organization has a three-tier structure with the Primary Milk-Producer's Cooperative Societies at the village level, District Cooperative Milk Producers' Union at the district level and the State Federation at the apex.

PMPSs are the grass roots level organizations and form the foundation of the whole super structure of cooperative dairying. Genuine milk producers owning milch animals and agreeing to sell their milk through the cooperative milk society are the become members of the PMPSs. The PMPSs are managed by a committee or board comprising the farmer members. The major activity of the PMPSs is 'milk collection' and it is done twice a day - morning and evening. Each producer has to bring his milk to the society premises before the appointed time. Then the milk tester of the society takes sample of the milk and tests the fat and SNF percentage of the milk. Price per liter of milk is determined according to the price supplied by the milk producer's union based on the fat content of milk. Each member is given a pass book in which entries are made as and when milk is poured and its value. Payment to

the producers is made once in 10 days. Out of the annual net profit of the society an incentive bonus is given to the members. PMPSs also provide technical inputs like veterinary aid and health services to producers free of cost. In some cases the PMPSs provide mini kits for fodder development at the farmer level.

At the second stage in institution building, cooperative milk producer's unions are organized at the district level. The MPU is the organization which links the rural producers with the urban market. One of the main activities of the union is organizing village cooperatives. The union collects milk from the village societies twice a day and transports the same to the dairy plant either directly or through the chilling centres. The procured milk is processed in the dairy plant before being despatched for sale. The district unions also provide various technical inputs to the dairy farmers. Out of the gross profit, the union meets its working expenses and gives dividend to the share holders and bonus to the members through the PMPSs.

The state federation serves as the nodal institution for undertaking research in dairy production technology and marketing strategy and providing consultancy services. It also provides breeding, artificial insemination, feed, health care and training facilities at the doorsteps of the members of PMPSs through the union. In some states like Orissa, the federation is directly engaged in the marketing of milk and milk products in its own sales counters and through dealers. In these states the union undertakes procurement and processing activities.

2.3.3. Progress of the Dairy Cooperative Institution in Orissa vis-a-vis India

Indian dairying under the cooperative sector has now advanced from the traditional dairy economy characterized by subsistence milk production and middlemen thriving on exploitation of both producers and consumers to an integrated system of milk procurement, processing, marketing and provision of inputs and technical services side by side. At the present the dairy cooperative network operates through 170 milk unions in over 338 districts covering nearly 1,08,574 village level societies and about 12 million farmer members.

India's milk production has increased from 21.2 million MT. in 1968 to 88.1 million MT. in 2003-04. Presently the per capita milk availability

is 231 grams per day, up from 112 grams per day in 1968-69. India's 3.8 per cent annual growth of milk production surpasses the 2 per cent growth in population with the net increase in availability being around 2 per cent per year.

In the field of marketing, the role of the dairy cooperative network is definitely appreciable. Average daily cooperative milk marketing reached 148.75 lakh liters in 2003-04 and annual growth has touched about 4.2 per cent compounded over the last five years. The cooperatives market milk in about 200 class cities including metros and 550 smaller towns. By comparing with the last ten years, it is observed that the daily milk supply to each 1000 urban consumers has grown from 17.5 to 52.0 liters.

The co-operative network is very careful in saving money and environment as well. By innovative rail and road milk tankers, it travels milk as far as 2200 kms. to deficit areas. Moreover, it is saving valuable foreign exchange by producing 90% of dairy equipment in India. Another significant development is that the cooperative provides employment opportunities for 12 million farm families.

The progress of the dairy co-operative sector is presented in the following table.

TABLE-1

DAIRY COOPERATIVES IN INDIA AT A GLANCE

Particulars	1980-81	1990-91	2003-04	2004-05 (Prov)
Dairy Cooperative Societies (org)	13284	63415	108574	113152
Farmer Members (in thousands)	1747	7482	11994	12326
Milk Procurement (thousand kgs. per day)	2562	9702	17483	20070
Liquid Milk Marketing (thousand Ltr. Per day)	2783	8046	14875	15628

Source : Annual Report - 2004-05, NDDB, Pages 33-36

In the context of organizing dairy industry on cooperative lines, Orissa is a late entrant. It could not benefit from Operation Flood-I and

the Orissa State Cooperative Milk Producer's Federation (OMFED) was organized at the state level only in November 1979 and became operational in the financial year 1980-81 when Operation Flood-II was launched in the country. The Federation (OMFED) followed the Anand Pattern of dairy cooperatives.

In 1980-81 Orissa had a very poor dairy base. The total milk production of the state was only 316.01 thousand metric tons and the per capita availability of milk per day was 33 gms. But now the total milk production has exceeded 997 thousand metric tons and per capita milk availability per day has reached 71 gms.

With the financial assistance of Indian Dairy Corporation, technical know how of National Dairy Development Board (NDDB) and due patronage of the state government, OMFED implemented the Operation Flood dairy development programmes in Orissa and now it is growing at a satisfactory rate. Initially only four districts, i.e. Cuttack, Puri, Dhenkanal and Keonjhar were covered under Operation Flood II & OMFED was functioning in these district only. But now it is functioning in all the thirty districts of the state with 1645 dairy co-operative societies having a membership of 1,22,000, a milk procurement of 65.18 million litres and a marketing level of 55.11 million litres as on 31.03.04.

Dairy development is a function of productivity of animals which again depends on various inputs in the field such as breeding and artificial insemination, feed, health care, maintenance, and training facilities that are being provided by the OMFED at the farmers' doorsteps. Since March 1992, the Federation implemented the Embryo Transfer Technology as a state project which is being assisted by NDDB and is providing good quality cattle feed at a reasonable price to the farmer members from its own cattle feed plant at Radha Damodarpur near Choudwar, Cuttack. Its Training and Demonstration Centre (OMTDC) near Phulnakhara, Cuttack is regularly imparting training on Dairy Animal Management Programme for the milk producers, Society Management Programme for secretaries of the societies, Veterinary First Aid Training Programme and Artificial Insemination Training Programme for secretaries and artificial insemination workers of different MPCSs, and Milk Tester Training and Management Committee Training Programme for testers and members. The following table portrays the status of dairy cooperatives in Orissa.

TABLE-2

DAIRY COOPERATIVES IN ORISSA

Particulars	1990-91	2003-04	2004-05 (Prov)
Dairy Cooperative Societies (org)	736	1654	1896
Farmer Members (in thousands)	46	122	130
Milk Procurement (thousand kgs per day)	41	127	164
Liquid Milk Marketing (thousand Ltr. Per day)	65	132	151

Source : Annual Report - 2004-05, NDDB, Pages 33-36

2.3.4. The Case for Cooperatives :

The cooperative form of organising and managing the dairy sector confers certain special advantages on the farmers. These include the provision of cattle feed, forage seeds, veterinary aid, breeding and insemination, technical know-how, regular and assured market, remunerative prices and easy concessional credit. By paying bonus to farmer members out of the annual profit and prices to them on the basis of quality of milk, the cooperative system induces investment and better quality management in the dairy economy. The functional specialisation and division of responsibility between primary societies, unions and the federation and the involvement of farmers in the decision making process increases the collective bargaining strength of the producers and provides ample scope for leadership development, eternal vigilance and enhancement of efficiency in management. By bringing together the producers and consumers in the dairy sector, ensuring a fair share to the producers in the final price paid by the consumers and supplying quality milk at affordable prices the cooperatives have proved to be highly responsible organisations and encouragingly responsive to the needs of the producers and consumers alike.

It thus follows that cooperatives enjoy a comparative mileage over the private commercial dairying and the government milk scheme.

Because of their economic advantages, democratic and social purpose and on account of their balancing the interests of producers and consumers, the cooperative organisation is best suited for dairy development.

LESSONS FROM A FIELD SURVEY :

A study on the working and impact of dairy cooperatives in the Cuttack Sadar Block of Orissa was conducted to examine the suitability of these organisations for dairy development. Ten primary dairy cooperative societies & twenty members from each society were selected at random and one hundred non member dairy farmers were chosen by accidental sampling for the purpose. These farmers and the officials of the selected cooperatives were administered a well tested questionnaire in December, 2005. The findings of the survey are summarised below.

* A significant percentage of the members belong to the educated group (40%) and upper castes (57%) disproving the traditional belief that dairy farming is the business of the uneducated & lower caste people.
* In the post-Operation Flood-II period, there has occurred a significant change in the occupational pattern of the farmers in terms of a 25% decline in 'fully dependent on crop farming' category of farmers.
* Between member & non-member dairy farmers, the former have better social participation & sound knowledge in identification of heat symptoms & improved milch breeds of cattle; greater awareness of the benefits of artificial insemination & silage preparation, chaffing of fodder & maintenance of dairy records; and access to improved technology and supporting agencies like veterinary aid centers, animal husbandry department, commercial agents and credit institutions compared to the latter.
* The members also display greater dairy entrepreneurship and commercial orientation and have achieved higher income gains (Rs. 4000/- Rs.5000/-) per month relative to the nonmembers (Rs.2000/- Rs. 2100/-).

Dairy cooperatives, like government enterprises, embody social advantage but suffer heavily from inefficiency, incompetence and

lethargy on account of inflexible business & pricing policies, poor work culture, overstaffing, high overhead costs, inadequate marketing & commercial orientation and myopic mindset of top managers who are essentially non responsive and non committal IAS officers on deputation from the government departments. But they are to succeed & take strong roots. The experience of Gujurat's dairy cooperatives suggests that given appropriate conditions, the cooperatives in India's dairy sector can be as vigorous and energetic as the private enterprises.

CONCLUSION :

Dairying is important for India. It is rural based, land saving, gender neutral and offers more favourable opportunities of gainful employment generation and provides a substantial source of income for the rural people compared to any other economic activity in the countryside. Under the Operation Flood Programmes in India rural dairying has been brought to the fore front. Conservatively estimated, Operation Flood has reached more than 50 million rural Indians.

From dependence to self reliance, Indian dairying has come a long way. India has established herself as the largest producer of milk in the world. It represents one of the world's fastest growing markets for milk and milk products due to increasing incomes among its 300 million strong middle class. The demand for milk and milk products is rising steadily and the per capita milk availability in the country is much less that in the developed countries. A favourable institutional arrangement is crucial for the development of this sector.

We observe three main organisations which are in operation in India's dairy sector viz.: cooperatives, government departments and the private sector and the choice of a particular organisation is critical. One type of organisation may epitomise efficiency, growth and modernisation but sacrifice on social commitment, equity, employment and livelihood scores. Another may assure economic gains to the farmers but fail to withstand the competitive combat. The choice of organisation(s) must take note of these trade-offs and the cooperatives are a natural preference. By opening a new gateway to the rural mass the cooperative movement has brought in a gigantic revolution in India's dairy economy. Cooperative dairying has already proved its efficiency, social advantage and sustainability. In the present context of liberalisation, privatisation and globalisation the cooperatives have come

under increasing competition from the private sector. For survival and sustainable growth they have to improve their work culture and commercial orientation, introduce and implement effective cost cutting technologies, and secure the confidence & patronage of their innumerable farmer-members.

REFERENCES :

1. Dairy *Extension Division, NDRI. (1994). "Constraints perceived by the farmers as well as extension personnel". Dairy Extension Division, NDRI, Annual Report 1993-94.*
2. *Dairy India. 1997, 1992, 1987, 1982.*
3. *Directorate of Animal Husbandry and Veterinary services, Orissa (1995-96). District Profile.*
4. *Directorate of Economics and Statistics, Orissa (1997, 99). District Statistical Handbook, Cuttack.*
5. *Gupta, H.C. (1997). Dairying in India.*
6. *Kaushik, Sunita & Savita Singal (1992). "Constraints felt by women members of Dairy cooperative societies in rural households of Karnal district". Indian Dairyman 45(8).*
7. *Khurody, D.N.(1974). Dairying in Indai. Asia publishing House, Bombay.*
8. *Kurien, V. (1971).The Larger Dimensions of Dairy Development in India. ICAR, New Delhi.*
9. *Thakur, D.S. "Benefits of Milk Cooperatives to Small Farmers and Landless in Gujarat". National Dairy Development Board (Mineographed).*
10. *Ward, G.H. (1969). "The Structure and Organisation of Cooperatives* in Developing Nations". Guidelines for Cooperatives in Developing Economics. Ed. Mary Jean Mc Grath. Madison: ICTC.

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Current Debates on Regulatory Structures Governing the Indian Financial System

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A well-developed financial system can mobilize household savings, allocate resources efficiently, diversify risks, induce liquidity, reduce information and transaction costs and provide an alternative to raising funds through individual savings and retained earnings. A financial system is only as strong as the governing practices and institutions of its participants. The challenge to build efficient and accountable financial institutions that promote confidence is a problem that financial sector manager and policy-makers face jointly today.

In today's markets, a good financial system infrastructure, prudential oversight of institutions in financial market and the development and implementation of financial activity standards, above all roles of regulators assume greater importance, as they have an impact on the health of the national and global financial systems.

Over the last few decades, the financial sectors in many countries have witnessed significant changes. Following globalization, deregulation and technological advances, the competition in the financial services has increased, and this has made the financial institutions to seek growth through diversification of operations. These developments, which are inter-related and mutually reinforcing, have, in turn, led to blurring of traditional distinctions, which used to apply across types of firms, types of products and types of distribution channels, on the one hand, and the emergence of financial conglomerates on the other. In the wake of these developments, the need for consistency or harmonization in regulation has generated a debate about the appropriate regulatory/

supervisory structures both in policy and academic circles. The boundaries between regulators simply no longer reflect economic reality of industry (Taylor, 1996) . It is also argued that there is a danger that prudential regulation based on solo principles might fail to capture the risk characteristics of the institution as a whole. A key supervisory issue, therefore, is whether there are risks originating within the group that are not adequately addressed by any of the specialist prudential supervisory agencies that undertake their work on a solo basis (Goodhart, et. al., 1998).

To meet the regulatory challenges posed by blurring of activities among providers of various financial services and emergence of financial conglomerates and the resultant overlaps, gaps, inconsistencies, different approaches/structures have been suggested including that of a 'super' regulator. There is a clear argument that a single, though amorphous, financial system needs to be matched by a single comprehensive regulator (Goodhart, 200a).

In India also, the financial sector has undergone significant changes following deregulation and liberalization during last 15 years or so. In view of these changes, it has been argued in some quarters that the distinction between different types of financial service providers has blurred considerably and many new financial services necessarily fall within the purview of traditional regulatory structures. Furthermore, the growing complexity of financial markets and growth of financial conglomerates have placed an enormous strain on the existing system with multiple and often overlapped regulatory and supervisory structures (Mor and Motsire, 2002). They argue that there is a need to seriously consider the possibilities of moving towards aggregated and consolidated supervision and work towards the creation of a single regulator.

In this backdrop, the present paper examines different regulatory structures governing financial system emphasizing unified structure approach for India. Traditionally, the regulation of financial intermediaries the world over has been on institutional liens whereby regulation is directed at financial institutions, irrespective of the mix of business undertaken. As financial institutions normally specialized in a particular business line, the distinction between institutional and functional regulation was not of much relevance and regulating a financial intermediary was not much different from regulating its main business. However, in the face of blurring off activities among providers

of financial services and emergence of financial conglomerates or universal banks, the institutional structure has become a major issue of policy and public debate in several countries.

Different Regulatory Supervisory Approaches

To mitigate the problems posed by the blurring of activities among providers of various financial services and operations of financial conglomerates, four broad approaches have been suggested, i.e., function-specific regulation, objective-based regulation, super regulator or unified regulation and lead/umbrella regulator.

Function-specific regulation

Under function-specific regulation, a specialist regulator regulates activity, i.e., banking regulators, investment activities by securities regulators and insurance activities by Insurance regulators, banking regulators regulate banking activities. The key elements in functional regulation is 'functions' performed by financial institutions rather than 'institutions'. Proponents of function-specific approach argue that whatever may be the change in the degree of regulation from 'institution' to 'function' seems inevitable (Merton and Bodies, 1995).

Objectives-based regulation

Another argument for regulatory structure is based primarily on the objectives of regulation. Taylor's model distinguishes between the systemic protection and consumer protection objectives. According to this model, there should be two separate supervisory bodies – one agency should be responsible for prudential supervision of most of financial institutions and another for conduct of business of financial institutions.

Unified structure approach

The term 'super' or 'mega' or 'conglomerate' regulator commonly refers to a structure that combines regulation in respect of all three or two supervisory responsibilities relating to banks, securities firms and insurance companies. Some of the major arguments advanced in favour of a 'single' regulator are economies of scale and economies of scope or synergies, It is also argued that a single agency is in a better position, in principle, to avoid problems of competitive inequality, inconsistency, duplication, overlaps and gaps, all of which can arise in a regulation

based upon separate regulatory agencies, It further argued that accountability of a single regulator is more certain and it is difficult to pass the blame on to other regulators. (Abrams and Taylor, 2000)

Umbrella / Lead regulator

In between the extremes of a super regulator for all activities and separate regulator for each activity is the 'umbrella' / 'Lead' regulator. While in the case of 'super' regulator supervisory functions relating to at least two of the major activities are combined into one agency, in the case of 'lead' regulator, individual regulatory agencies continue to exist, while one of the regulators is selected to coordinate the regulation and to have group wide assessment. The existence of the lead regulator is not intended to interfere with the powers and responsibilities of solo supervisor. Umbrella Supervisor is an authority, which is distinct from and above the functional supervisor and is fully responsible for supervision for the entire financial conglomerate. Thus, the term 'lead' regulator and 'umbrella' regulator have different meanings, although they may be performing the same functions.

Global Experiences :

Having analyzed the supervisory structures prevailing in different countries, we shall now explain the trends as witnessed in supervisory structures in recent years. Singapore was the first country to adopt a composite supervisory structure. Mega regulators were established in three Scandinavian countries in the late 1980s and early 1990s. Norway was the first Scandinavian country to set up a mega regulator called Kredittisynet in 1986 by combining the supervisory functions relating to banking, securities and insurance sectors. It was followed by Denmark, which established Finanslitrynet in 1988. In 1991, Sweden created a mega regulator by combining credit institutions, insurance and securities firms. In 1987, Canada set up the Office of the Superintendent of Financial Institutions (OSFI) to undertaken supervision of banks and insurance companies. For some time, no unified structure was created in any country until April 1998 when Korea created a super regulator. In the late 1990s and early 2000, many more countries created unified structures, including Japan and the UK. In all, there are 17 countries, which have revamped their supervisory structures so far. Of these, 12 countries have created unified structures by combining 3 major regulators (Australia, Denmark, Iceland, Japan, Korea, Malta,

Netherlands, Antilles, Norway, Singapore, Sweden, UK and Uruguay), while 5 countries have revamped their structures by combining two major regulators (Finland, Hungary, Ireland, Luxemburg and Mexico).

Factors that led to creation of unified structures till the early 1990s are somewhat different form those that led to creation of unified structures since the late 1990s. In Singapore, it was common for local banking groups to own subsidiaries or affiliates carrying on insurance and securities business. However, the linkage among banking, securities and insurance was not the only reason why Singapore adopted a unified structure. Synergies in bringing together under one roof the supervisory responsibility for all financial activities was also an important reason for creating a unified structure. In a small country with limited human capital and supervisory capacities, it was found sensible to bring the various supervisory functions within one agency. Likewise, the main reasons for creating unified structures in three Scandinavian Countries (Denmark, Norway and Sweden) were the creation of new financial instruments due to bundling and rebundling of services offered by different types of financial services firms and emergence of financial conglomerates. Besides, their desire to build supervisory capacities and to achieve synergies and economies of scale with a relatively small financial sector were also the major factors. For instance, in Norway there had reportedly been difficulties in attracting staff, particularly for the insurance regulator, and it was felt that a combined agency would generate improved performance in this regard. However, unified supervisory structures since 1998 have been created largely to deal with regulatory weaknesses resulting from convergence of activities and emergence of financial conglomerates.

Although there are several countries, which have combined regulator for two activities, most of such structures were created from the very beginning and long before the present wave of deregulation. Of 38 countries, which have combined regulators for two activities, only 5 countries (Finland, Hungary, Ireland, Luxembourg and Mexico) appeared to have created combined structures by merging the existing regulators and response to the regulatory challenges posed by the convergence of activities. In other countries, banking supervision with either securities or insurance supervision was combined from the very beginning in view of the small size of the financial sector and also to reap the benefits of economies of scale.

Rationale of super regulator for Indian financial system

The issue of choosing between single and multiple regulators for financial system in the Indian context was dealt in detail for the first time by Dr. Y.V. Reddy, the then Deputy Governor, RBI in his speech delivered in May 2001. However, Dr. Reddy also did not recommend the institution of a super regulator for the Indian financial system. Instead, he wanted to explore the feasibility of an umbrella regulatory legislation, which can create an apex regulatory authority without disturbing the existing jurisdiction.

The case for a super regulator in the Indian context for the first time was made by Mor and Nitsure (2002) who argue that in India the existence of multiple regulators has segmented markets and created certain systemic distortions. Also, unequal regulatory burdens and fragmented markets give rise to severe distortions in prices such as interest rates. They argued that streamlined oversight by a super regulator may be able to deliver improved supervision at lower cost and may better align different supervisory functions with economic realities. While Mor and Nitsure strongly argued in favour of a super regulator on the ground that existence of multiple regulators has created certain systemic distortions, they provided no evidence whatsoever to prove their point. The Joint Parliamentary Committee (2002) in its recently submitted report also touched upon the issue of a super regulator. While feeling that there is a need for better and closer coordination amongst the multiple agencies involved in the financial system, the Committee observed that super regulator is not the answer to the problem.

The issue of a super regulator in the Indian context in this paper has been examined from the following two viewpoints.

- One, as the institution of a super regulator has been suggested mainly on the grounds of regulatory overlaps, gaps, inconsistencies, etc., an attempt has been made to ascertain whether and to what extent these elements are present in the Indian financial system.
- Two, what would be the ramifications if a system of unified structure or super regulator is adopted in India.

Several significant developments have taken place in the Indian financial system since the second half of the 1980s. Some of the major changes relevant to the question under examination are set out below:

- Two banks (SBI and ICICI Bank) have diversified into a number of activities including insurance, securities, mutual fund, etc.
- Some banks (Canara Bank, Bank of Baroda, Bank of India, Punjab National Bank, Indian Bank) have set up subsidiaries to undertake securities merchant banking and mutual funds related activities. Some other banks (Allahabad Bank, Rajasthan Bank and Federal Bank) have also set up subsidiaries for undertaking merchant banking business. Some banks have plans to enter into insurance business. While 2 banks (Jammu and Kashmir Bank Ltd. and Vyasya bank Ltd.) have been accorded approval to participate in the equity of joint ventures on a risk participation basis, two other banks (Punjab National Bank and Vijaya Bank) have been permitted to make strategic investment up to certain limits in the life and non-life insurance joint venture and in a distribution and services company. Besides, some banks have also been given 'in principle' approval to act as corporate agent of insurance companies for distribution of insurance products on a fee basis.
- A DFI (IDBI) has set up subsidiaries to undertake banking and mutual funds business among others.
- A mutual fund (UTI) has set up a bank.
- Two insurance companies (LIC and GIC) have also entered into mutual fund business.
- Banks have been allowed to undertake project financing without any restrictions.
- DFIs have also started extending short-term/working capital finance.
- Restrictions on Banks' participation in the capital market have been relaxed in comparison with what prevailed in the early 1990s notwithstanding some recent tightening.
- A housing finance company (HDFC) and an NBFC (Kotak Mahindra) have already set up their own banks.
- DFIs have been allowed to raise term deposits, albeit under some terms and conditions.
- Guidelines governing deployment of funds by insurance companies have been relaxed significantly.

It is significant to note that in India, two largest insurance companies (LIC and GIC) are not yet allowed to undertake banking business, as it would require legislative amendments. Commercial banks can undertake insurance activity with risks only if they have minimum net worth of Rs.500 Crore, capital adequacy ratio of not less than 10 percent and some other stipulations. No mutual fund or investment company has entered into the field of insurance as yet.

The question which is needed to be examined here is whether the above referred changes/developments have led to: (a) overlaps and conflict in regulations; (b) an uneven playing field amongst three major financial service providers; and (c) gaps in the regulatory system, requiring overhauling in the supervisory system.

(a) Examine the first question regarding overlaps and conflict in supervision. This could arise if a financing institution is subject to the jurisdiction of different regulators for different activities. This could happen in an institution based on regulatory system when there is a sharp blurring of activities in different financial institutions offering one another products in stand alone or composite form. Now, insofar as India is concerned, there is no evidence of any significant blurring of activities. Most of the products being offered by various financial intermediaries are stand-alone and they do not carry composite feature of bank deposits, investment, insurance etc. Under the existing regulations, banks cannot sell insurance policies nor can other institutions (insurance companies and mutual funds) sell deposit like products. In India very few such composite schemes have been introduced and that constitute just 0.08 percent of new life business during 2003-04.

Bank also participates in capital market both as direct investor and as financier for brokers/investors. These activities being of lending/ investment in nature have to be regulated by the Reserve Bank and there is no overlap or conflict. Nevertheless, in order to ensure that guidelines for financing of brokers and investors by banks are appropriate, the Reserve Bank, of late has been going by the advice of Standing RBI-SEBI Technical Committee. Such problems are possible under any supervisory structure and underscore the need for strict enforcement of regulation and coordination among regulators and not change in the supervisory structure.

One area of potential conflict was the regulation of the debt market. However, the Government issued notification in March 2000 delineating the areas of responsibility between RBI and SEBI. It may also be noted that the bank-sponsored mutual funds, which were initially regulated by the RBI, were later brought within the regulatory jurisdiction of the SEBI

(b) Regulatory overlap could also arise if there are different regulators for different purposes/functions/activities. Regulation in India has been organized clearly on institutional lines and financial institutions have clearly the responsibility of one of the three regulators, viz., RBI, SEBI and IRDA.

(c) Examine whether there is an 'uneven playing field' amongst similar financial institutions. An uneven playing field is created when different institutions are subjected to different regulatory requirements (either by the same agency or by different agencies) for the same activity. An analysis of financial intermediaries in India suggests that there is no evidence of an uneven playing field amongst banks, insurance companies and mutual funds.

Lead Regulator-A Better Option

Although given the institutional settings and structure of the financial system in India, the specialist regulators are better equipped to carry out the regulation of their respective segments effectively, the need is felt for some mechanism to cope effectively with (i) the problems posed by financial conglomerates, albeit few, (ii) the growing integration, and (iii) the potential inconsistencies, gaps, overlaps and conflicts that could arise in future. Contagion has been recognized as one of the most important problems, which the supervisors face in relation to financial conglomerates. Contagion results from the existence of extensive intra-group exposures and its containment requires group-wise perspective and exchange of information by supervisors on a regular basis and in crisis situations. Since umbrella supervisor imposes an additional layer of regulation, it needs to be avoided. As such, a system of 'lead regulator' is better suited for India. The advantage of this system is that it allows the group-wise perspective of the financial group and regular coordination without disturbing the existing arrangements. The lead regulator is working in many countries such as Argentina, Austria, Chile, Greece, Ireland, Philippines, etc. The system of lead regulator

was also operated in some of those countries, which have now followed a unified structure. For instance, the U.K. also had a system of lead regulator before it set up an all-embracing Financial Services Authority. Similarly, Australia before adopting objective-based regulation also had Council of Financial Supervisors for high-level liaison, coordination among the main agencies, and overseeing the financial conglomerates.

The lead regulator could be selected on the basis of the dominant activity of a financial conglomerate. And this process would relatively be easy as all the financial conglomerates in India are clearly dominated by one activity with other activities forming only a small part of their business. The lead regulator (or convener) could be assigned the task of making an assessment of group capital adequacy, informing supervisors of constituent entities about developments affecting the viability of the group, and coordinating combined regulatory actions both on a day to day basis and in crisis situations. The main issue from a systemic point of view is the top 10 to 15 financial institutions. Incidentally, the eleven financial conglomerates institutions as referred to before (such as ICICI Bank, SBI, IDBI, LIC, PNB, Canara Bank, Bank of Baroda, Bank of India, etc.) are the top financial institutions in the country. These institutions could be allocated to clear lead regulators, which could meet every month. Perhaps initially, the lead regulator system could be introduced in respect of financial conglomerates involving banks for which the Reserve Bank could be the lead regulator. After gaining some experience, lead regulators could also beset up for other financial conglomerates involving insurance companies and securities companies.

CONCLUDING OBSERVATIONS

The main objective of this paper was to examine what types of regulatory/Supervisory approach India should follow in the changing global financial system. Notwithstanding recent changes in the Indian financial system, it has been established in this paper that there are no significant regulatory overlaps/gaps, conflicts or inconsistencies. There is also no evidence or an uneven playing field amongst similar financial institutions. That is, the main arguments such as competitive neutrality, wasteful duplication and regulatory arbitrage, which are normally advanced against institution-based regulation, do not have much relevance in India as yet. The only significant development from the viewpoint of supervisory structure has been the emergence of some

financial conglomerates. However, their number as at present is small. Only two financial conglomerates are engaged in three major activities, while nine others are engaged only in two of the three major activities. In many other countries where mega regulators have been set up, there was a proliferation of financial conglomerates. As such, there are insufficient grounds for creating a unified structure in India. Given the present institutional settings in India, the unified structure, if created, could adversely affect the stability of the financial system by (i) undermining the banking supervision which, for systemic reasons, has been the focus of supervisory activity all along, (ii) undermining the central bank's ability to manage the crisis situations, and (iii) doing away with synergies between monetary stability and financial stability resting with two separate authorities. Given the fact that the monetary stability and financial stability mutually reinforce each other, it may not be advisable at this stage to separate them.

In India, the financial system is not yet as complex as in many other countries. The existing system of regulation by specialist regulators in India has served well. The securities irregularities as witnessed in 1992 and 2001 are possible under any regulatory structure. In fact, both the nature and extent of irregularities were much more severe in 1992 when there were neither financial conglomerates nor any convergence of financial products. Thus, there are very strong reasons for not altering the existing supervisory system. Also, there would be costs, risks and uncertainties associated with the switch over from the existing system to the new one, which need to be avoided unless it is clearly established that the new system to be introduced would be far superior to the existing one.

In a very dynamic and rapidly evolving situation, the existing regulatory/supervisory structure even with the institution of a lead regulator might not be found suitable. In such a situation, there might be a need to re-examine the prevailing supervisory structure. However, considering the fact that the supervisory structure has serious ramifications for the stability of the financial system, it would require a very careful assessment of issues involved and advantages / disadvantages of various systems including that of a super regulator before any change is effected. The supervisory structure should be overhauled only in a situation where disadvantages of continuing the existing system far outweigh its advantages.

REFERENCES :

Raj, Janak (2003)- 'Does the Indian Financial System need a super regulator ?' RBI staff studies

Paladi, Jangaiah (2005)- 'Financial Sector Governance an overview' ICFAI reader August, 2005

Brault, Cliver (2002)- 'The Rationale for a Single National Financial Services Regulator'

Barents, (1999)- 'Super-Regulator: Recent Trends and Alternatives', INSIGHTS, Vol. 2, Issue 1, (Spring)

Reddy, Y.V. (2001)- 'Issues in Choosing Between Single and Multiple Regulators of Financial System', Reserve Bank of India Bulletin, May.

Subramanyam,S. (2002)- 'Single Regulator: A Troubled Exercise', Business Line, January 26.

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DEPOSIT AND CREDIT MISMATCH IN FINANCIAL INSTITUTIONS IN INDIA : A study on interstate variations.

By

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The financial institutions are the growth engines of Indian economy who mobilise the dormant capital into productive investment. They originated before independence but their growth and performance became phenomenal during plan periods. They are like the hubs of economic plans and catalyzers of public and private investment. Well developed and organised financial infrastructure is essential in stimulating and sustaining economic growth. A good network of financial institutions helps the economy to deploy its saving more efficiently. The performance of banking sector in a poor state like Orissa is not satisfactory. There are 25 commercial banks and 9 regional rural banks with 2226 branches in Orissa. There is one branch per 16.6 thousand persons in Orissa whereas there is one branch per 9.6 thousand person in Punjab and 4.2 thousand persons in Goa. The growth and performance of banks is unsatisfactory with regard to number, deposit, credit and facilities of the banks.

1. OBJECTIVES

This study is based on secondary data published by banking journals and bulletins which aim at evaluating the performance of banking sector in 16 major states of India with special importance to Orissa. The specific objectives are as follows :

(i) To anlyse the number of bank branches and population per branch in different states and variations thereof.

(ii) To calculate credit deposit ratio in various states and its mismatch.

(iii) To rank the states on the basis of performance of banking sector.

(iv) To find out the growth rate of credit and deposit from 1990 to 2002 in Orissa and to analyse the trend.

(v) To suggest measures to develop the banking sector in Orissa.

2. PERFORMANCE OF BANKS IN MAJOR STATES OF INDIA

The present study has considered 16 major states of India. The banking sector is growing since independence specially after nationalisation in 1969 and establishment of regional rural banks in 1974. The regional inequality and uneven performance of banking sector in different states have been of great concern of all planners and policy makers. Industrially developed states like Maharastra and Tamilnadu continue to take greater advantage of banking sector where higher amount of credit is sanctioned and disbursed. The less developed states like Bihar, Orissa, Rajasthan etc. continue to be neglected by the banks. The study has ranked the states on the basis of their credit deposit ratio and population per bank.

2.1 High Banking Performance

Industrially advanced state, Maharastra is the best performing state in terms of deposits and credit. In 2002 the total deposit of Banks in Maharastra is Rs. 196210 crore whereas total credit is Rs. 210119 crore. The deposits of other states are diverted and credits are more disbursed in Maharastra with CD ratio of 107.1 (Table No.-1) So this state is the most favoured state of the Banking sector.

TABLE NO.-1

States With High Banking Performance, Population per Bank and C.D Ratio.

Sl. No.	State	No. of Branches	Population / Banks (in 000)	Deposit (Rs. Cr.)	Credit (Rs. Cr.)	C.D. Ratio
1.	Maharastra	6306	15.5	196210	210119	107.1
2.	Tamilnadu	4751	13.1	74642	62914	84.3
3.	Andhra Pradesh	5208	14.6	63786	39289	61.6
4.	Karnataka	4776	11.1	63644	38029	59.8

Source : Banking Statistics, Quarterly Handouts – Economic Survey, Various volumes.

The recovery performance of banks in Maharastra is satisfactory. Tamilnadu, Andhra Pradesh and Karnataka get the second, third and fourth positions with C.D ratio of 84.3, 61.6 and 59.8 respectively. All three are relatively developed states of the country. The population per bank is 15.5 thousand in Maharastra, .13.1 in Tamilnadu, 14.6 in Andhra Pradesh and 11.1 in Karnataka.

2.2 Low banking performance

Bihar is the least developed state of India which has the lowest banking performance. The state has only 3565 number of bank branches with 23.8 thousand population per branch. The credit deposit ratio is also lowest 21.3 compared to other states of the country. The credit deposit ratio is 29.4, 31.4 and 35.9 in Uttar Pradesh, Assam and Jammu & Kashmir respectively (Table No.-2). The low banking performance in these states is mainly due to low level of industrialisation and insufficient growth of tertiary sector.

TABLE NO.-2

States With Low Banking Performance, Population per Bank and C.D Ratio

Sl. No.	State	No. of Branches	Population / Banks (in 000)	Deposit (Rs. Cr.)	Credit (Rs. Cr.)	C.D. Ratio
1.	Bihar	3565	23.8	29969	6385	21.3
2.	Uttar Pradesh	8178	10.2	98701	29055	29.4
3.	Assam	1232	21.8	11552	3627	31
4.	Jammu Kashmir	824	12.4	11808	4244	35.9

Source : Banking statistics, Quarterly Handouts.

Utter Pradesh is an agriculturally advanced state but credit disbursed in 2002 is only Rs.29,055 crore and there are 10.2 thousand persons per bank. The population-wise the number of branches is satisfactory but the credit performance is very unsatisfactory and recovery position is not good. The overdue and non performing assets are increasing in these poor performing states specially in Bihar. Bihar continues to be the most neglected state by the banking institutions.

2.3 Medium banking performance.

Kerala and Punjab have 9.6 thousand persons per bank branch and their credit deposit ratios are 42.8 and 42.3 respectively. The CD ratio of Gujrat, Haryana, Madhya Pradesh, Orissa, Rajasthan and West Bengal varies between 42 to 49. So the credit as percentage of deposit of medium performing states varies between 42% to 49% as shown in Table-3.

TABLE NO.-3

States With Medium Banking Performance, Population per Bank and C.D Ratio.

Sl. No.	State	No. of Branches	Population / Banks (in 000)	Deposit (Rs. Cr.)	Credit (Rs. Cr.)	C.D. Ratio
1.	Gujrat	3648	14.1	63633	28678	45.1
2.	Haryana	1549	13.8	23354	10107	43.3
3.	Kerala	3315	9.6	52267	22349	42.8
4.	Madhya Pradesh	3451	17.7	33261	15452	46.5
5.	Orissa	2226	16.6	18313	7763	45.6
6.	Punjab	2559	9.6	50647	21449	42.3
7.	Rajasthan	3329	17.2	31241	15278	48.9
8.	West Bengal	4429	18.2	77467	35486	45.8

Source : Banking Statistics Quarterly Handouts.

In Orissa there are 2226 number of bank branches with 16.6 thousand persons per bank branch. So the number of bank branches are satisfactory in Orissa but the credit performance of banks is unsatisfactory. Kerala is a small state with 3315 number of bank branches and the total deposit is satisfactory in the state. Madhya Pradesh is a large state but the total deposit of banks in the state is only Rs. 33261 crore which is less than that of Kerala . Less developed states not only have less number of bank branches but also less deposit and credit. So banking performance can be considered as an index of development of the states. There is a clear implication that there is high degree of inter state variation of credit in the country. The deposit credit mismatch is more than 50% in all the states except Maharastra, Tamilnadu, Andhra Pradesh and Karnataka. There is an urgent need to

increase the sanction of credit in less developed states to promote the investment and to reduce regional inequality.

3. TRENDS OF CREDIT DEPOSIT RATIO IN ORISSA FROM 1990-91 TO 2001-02.

Orissa is one of the less developed states of the country where natural calamities frequently create devastation to the state economy.

TABLE NO.-4

Credit Deposit Ratio in Orissa from 1990-2002.

Year	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	01-02
C.D. Ratio	80.59	71.97	65.06	55.48	55.49	54.81	48.99	45.19	42.51	45.60

Source : Economic Surveys of Orissa.

The aggregate deposits have increased by 288% between 1990-91 to 1998-99 but the gross bank credit has increased by only 105%. The credit deposit ratio has steadily declined from 80.59 in 1990-91 to 42.51 in 1998-99 whereas all India average is 55.49 in the same year. It has slightly increased to 45.60 in 2001-02. The decline in the credit deposit ratio after the new economic policy is of great concern to the state planners and policy makers. There is credit diversion from Orissa to other states which 'must' be stopped. At least 70% of Total Deposits collected from the state should be advanced as credit in state only. Mounting overdue and non-repayment of bank credit by the borrowers are the main causes of low credit in the state. The State Government should adopt strict legal measures to increase the recovery of bank credit in the state.

4. SUGGESTIONS AND CONCLUSION

Declining credit deposit ratio, poor recovery position of banks, low assistance under different anti-poverty programmes, mounting overdue and non-performing assets of operating banks in the state need immediate attention of planners and policy-makers. The following suggestions are put forward to improve performance of the banking institutions.

(i) Sector wise targets and achievements of all banks in Orissa in priority sector need to be evaluated and monitored effectively.

(ii) The Self Help Groups (SHGs) must be linked and accelerated properly with formal credit delivery system of the state.

(iii) Regional disparities in disbursal of credit have to be minimised in short period and removed in long period.

(iv) Credit planning, monitoring, evaluation and correction methods must be applied on credit flow to different sectors.

(v) A special loan recovery court needs to be established in every district with two judges and money suit cases should be decided within three months with proper judgment.

(vi) Merger of Cuttack Gramya Bank and Balasore Gramya Bank is a bold step to revitalise rural Banking. Government should take further steps to merge other banks to develop strong banking system.

REFERENCES :

1. *Banking Statistics , Quarterly hand outs, Various issues.*
2. *Das S.K (1991) Banking Development in Orissa.*
3. *Government of Orissa: Economic Survey, various volumes.*
4. *Government of Orissa, State Economy in figures, 2002.*
5. *Mishra. B (1995) Banking and Rural Development.*
6. *Patra. S. (1998) Issues and problems of co-operatives, OEJ Volume-XXX.*
7. *Patra. S. (2000) Demand and supply mismatch of co-operative credit, S.N. Tripathy, edited 'Rural Development' Discovery Pub. New Delhi.*
8. *Reserve Bank of India, Report of Currency and Finance, Various volumes.*

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Public Distribution System & Its impact on Poverty in India

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INTRODUCTION

Public distribution system (PDS) had its origin in the Second World War when due to scarcities rationing was introduced in urban areas. In the post independence period it has been retained as a welfare measure. Introduction of new agricultural technology in mid 1960s led to an increase in foodgrains production. The farmers have always been exploited by the traders who manage to depress the prices considerably in the post harvest period. The main purpose of PDS was to act as a price support programme for the consumer during the period of food shortage of 1960s. It acted as an instrument of price stabilization and became a counter-veiling force against private traders who were interested to exploit the situation of scarcity to acquire more profit. The basic aim was to provide essential commodities at subsidised prices.

The current focus on streamlining of the PDS and deregulation of the domestic foodgrains market is mainly due to the pressure on the Government to reduce fiscal deficit while providing a reasonable safety net to the poor. Since a large proportion of the population continues to be poor, food security concerns are of great importance in India. Widespread poverty and lack of purchasing power imply limited market demand for food grains. Increase in food supply without adequate increase in demand means lower prices for farmers which in turn requires price support for farmers from the Government price support operations can result in excessive stocks with the Government in the absence of the food distribution programme. Food subsidy to consumers and price

support to farmers are complementary to each other. But the current food scenario is marked by high level of foodgrains output coupled with a large grain reserve in public storage. This is largely due to the efforts of the Government to protect farmers through regular increase in the procurement price of grains. These two together impose a heavy drain on the exchequer which responds by increasing the issue price of subsidised grain. The ultimate effect of these policies is to reduce the permit subsidy to consumers leading to a shortfall in the offtake Thus despite the achievement of self-sufficiency in food grains and the prevalence of subsidised distribution of grains since Second World War, per capita consumption of the poorest section of the population continues to be lower than the recommended nutritional level and a large percentage of children remains underweight.

The present paper is a modest attempt to examine the cost and benefits associated with the operation of the PDS, impact of PDS on poverty and how far TPDS has been efficient in tribal areas. The present study is based on secondary data and findings of the empirical studies conducted by various economists over the time period 1980-81 to 2003-04.

Since the mid-1980s the coverage of the PDS was extended to rural areas in some states and acquired the status of a welfare programme. An effort was made to extend subsidised foodgrains till 1985 in all the tribal blocks covering about 57 million persons. With a network of more than 4.62 lakh fair price shops (FPS) distributing commodities worth Rs.30,000 crore annually to about 160 million families, the PDS in India is perhaps the largest distribution network in the world. In several employment generation programmes subsidised foodgrains were distributed as a part of wages.

Central Government expenditure on food subsidy has increased substantially from Rs.650 crore in 1980-81 to Rs.2450 crore in 1990-91 to Rs.9200 crore in 1999-2000 and further to Rs.21,200 crore in 2002-03.

Food subsidy as percentage of total government expenditure was 2.89 in 1980-81 but declined to 2.33 in 1990-91 which increased to 3.03 in 1999-2000 and increased significantly to 5.17 in 2002-03.

Dr. M.H. Suryanarayan has aptly remarked that a break up for rural and urban sector separately shows that sugar, rice and kerosene are relatively more important items sold through the PDS in rural sector while rice sugar, kerosene wheat and edible oils in the urban. Thus,

there is general impression that the PDS commodity composition is weighted in favour of items supposed to be consumed largely by the relatively richer sections of the society or the poorest decile, consumption of cereals was in the range of 8 to 11 kgs. There was improvement in the rural sector from 8.71. kg. in 1972 to 10.95 kg. in 1989-90. Similarly in the urban sector there was marginal improvement for the poorest decile from 9.8 kg. per month in 1958-59 to 10.03 kg. in 1989-90. But still it is below the subsistence level norms of ICMR from minimum cereal consumption of 11.58 kg. per month. Thus from the stand point of food security it is imperative to bring the cereal consumption to the minimum cereal consumption norms of 11.58 kg. fixed for subsistence level by ICMR. To reduce malnutrition among the poor it is imperative that consumption pattern of the poor which has remained stagnant in terms of cereal consumption be altered in favour of nutritious non-cereal items.

Changing role of PDS and its cost effectiveness

The benefit cost ratio from the PDS increases when subsidies are targeted at the poor and indirect benefits are accounted for even in a scenario where PDS grain is procured at market prices. The inefficiencies in the system particularly in cost have been the terms of focus of economic reforms and structural adjustment programme undertaken by the Government since July 1991. The cost of operation of PDS consists of two major components i.e. subsidy cost and administration cost.

The subsidy costs occur mainly because the cost at which food grains are procured is higher than the price at which they are sold in the PDS. In addition there are procurement, incidentals, storage, transport and other administrative costs involved in the procurement and distribution of grains. Theft damages and other kinds of losses in storage and transit add to these costs. Inspite of incurring these costs the effectiveness with which PDS provides food security to the poor has been low. This is attributed to two reasons. Firstly the provision of food subsidy through PDS has until recently been universal and not specifically targeted at the poor. A large proportion of the subsidy has been diverted to the non-poor. Secondly there has been phenomenal corruption leading to leakage of large amount of subsidised grain into the open market.

Mooij in 1999 in her study on Bihar found that it is difficult for the PDS dealers to make profit without being corrupt. The administrative efficiency and the level of corruption vary with the state. For the nation as a whole the estimates of diversion of grains from the PDS to the open market are close to one third.

The recent changes in the food distribution system have been motivated mainly by a need to reduce the food subsidy bill. These changes have concentrated mostly on one aspect of the problem that quite a large fraction of the benefits accrues to the non-poor in the absence of explicit or implicit targeting. The Government seems to have ignored the problem of leakage of benefits due to the corruption. Riddled with the problem of rising cost, low income support and ineffective targeting of subsidies to the poor, Government of India initiated TPDS i.e., to directly target the subsidies to the poor which will serve BPL families. Under this schemes the states are required to identify these families and provide them 35kg. of foodgrains per family. Under TPDS the incentive for leakage is increased due to the larger difference between the open market and the ration market price for BPL families. The introduction of TPDS has also led to the perverse outcome where allotment of food grains was increased to states with weak delivery system and reduced to those with greater administrative efficiency since the allotment was based on the prevailing poverty level in these states. The ever increasing and politically influenced procurement or minimum support price (MSP) has been the main cause for the rising food subsidy bill. Inspite of recommendation by the Expenditure Reforms Commission (2000) for the freezing of MSP at previous year level it was again increased. The current level of MSP for wheat is much in excess of world price. This policy induced price distortion is preventing the diversification of agriculture and development of comparative advantage in other high value crops.

Lowering of MSP would reduce this distortion and also help in reducing the cost of PDS and carrying buffer stocks. Liberalisation of international trade in foodgrains and use of other instruments like variable levies for price stabilisation would also reduce the cost of buffer stocking.

Inadequate purchasing power among the poor leads to low overall demand for food grains. This coupled with high supply of foodgrains

leads to low food prices creating a need for price support. Thus so long as the income of the poor fails to grow adequately the need for food subsidy remains and improving the efficiency of the system and reducing the incentives for corruption are the only way to reduce the food subsidy bill.

PDS and Food Security for the poor

The basic question which needs to be probed is whether PDS purchases are able to effectively help the poor. Radhakrishna et. al. have studied this problem on the basis of 42nd NSS round 1986-87 and remarked that the evidence shows that even now, the efficacy of PDS in distributing food to the poor seems to be as bad as in 1986-87 and that some of the disquieting features persist. The virtual exclusion of backward states such as Bihar and UP from PDS network and the universal character of PDS in states in which PDS offtakes were significant. Monthly purchase from PDS was lowest for the very poor uniformly across all the states both in rural and urban areas. Impressive coverage and additional state level spending on subsidy are no guarantee that very poor are better served, PDS has remained expensive and largely untargeted programme. The central issue is how to improve the efficacy of PDS in transferring food to the poor cost effectively. The policy initiatives should distinguish between the very poor and moderately poor and attempt at improving the efficiency of PDS in transferring, food to the former since the ultra poor suffer not only from chronic food insecurity but are also severely exposed to the risk of uncertainty both in food and labour markets.

Regional off-take of PDS Food grains and its correlates

The upward revision of issue price has adversely affected offtake level since the gap between subsidised issue price and open market price has been narrowed down and consequently in all states, offtake was lower than the central allocation. The per capita offtake was low in food surplus states with low incidence of poverty such as Punjab, Haryana as well as in poorer states such as Bihar, Orissa, MP and UP. The offtake was high in food deficit but relatively fiscally richer states such as Gujarat and Maharastra.

To verify the relationship between offtake of rice and wheat from FCI and its correlates

(a) Percentage of population below the poverty line.

(b) Per capita SDP.

(c) State Government per capita exp. we ran a regression.

However regression analysis reveals that none of the correlates is significantly related to off-take.

PDS Impact on Poverty

Radhakrishna Report has studied the decline in poverty as a result of PDS subsidies. The study reveals that considering India as a whole the impact of all consumer subsidies on poverty was moderate, subsidies reduced poverty as measured by head count ratio by 1.66 percentage points in rural areas and 1.71 percentage points in urban areas. About 12.1 million persons (9.4 million in rural and 2.7 million in urban areas) have moved out of poverty in 1986-87 due to income transfer from PDS. Given the large size of absolute number of poor (274 million in 1986-87) these numbers are small.

The decline in poverty in Kerala by 5.49%, in AP by 4.64%, in Karnataka by 4.33% and in Gujrat by 3.85% indicates a significant contribution by these states in poverty reduction in 1986-87. To underestimate the overall impact of the scheme in reducing poverty by 1.66% in rural and 1.71 % in urban areas is to do injustice to the impact of the scheme. The impact is transient but not enduring in nature. So long as the development process is not able to reduce poverty effectively in Bihar, UP, MP, Orissa and Rajsthan the continuance of PDS in poor states stands justified.

On cost effectiveness Radhakrishna's study reveals that under the PDS the cost of transferring one rupee of income to the poor was Rs. 5.37 which includes cost both of the Central and the State Governments. AP rice scheme was least cost effective since the cost of transferring one rupee to the poor was Rs. 6.35. Under JRY the cost of one rupee income transfer was Rs. 4.35 and that under Maharashtra Employment Guarantee scheme it was Rs. 3.10. However, the cost of transferring one rupee under ICDS was Rs, 1.80.

Policy option for Reforms of PDS

The major problem in the reforms of PDS is intended with the supreme intention of helping the poor. For this purpose identifying the poor is a basic problem and this requires the development of strategies

which without ignoring political economy considerations are able to minimise the accrual of benefits of PDS to non poor. For this purpose the following should be the goals of PDS reforms.

(a) Devise instruments for the identification of the poor by transferring the task of identification from the bureaucracy to PRIs.

(b) Through extensive consumer surveys identify PDS commodities which confer higher income benefits on the poor and others which are used by the non poor should be gradually shifted to the open market.

(c) To help the effective transfer of income to the poor, the gap between the issue price of essential commodities and their market prices should be sufficient to attract the poor to purchase PDS commodities.

(d) The following considerations should be taken into account while identifying the poor.

For the rural areas the following criteria may be adopted

(i) All households participating in employment programmes may be included

(ii) Single mothers with children or widows without support should be included

(iii) All households having less than 5 acres of irrigated land should be included.

(iv) All landless agricultural labourers and petty artisans should be included

For urban areas the following criteria may be adopted :

(i) Careful selection of areas : slums, areas occupied by traditionally poor communities such as potters, cobblers, construction workers, etc.

(ii) Households which do not possess expensive consumer durables.

How efficient is TPDS in tribal areas ?

A study made by Kripa Shankar in a tribal area in South Eastern UP indicates that targeted public distribution has not helped to provide food security to vulnerable households in the absence of assured regular income.

According to Economic Survey 2002-03 food grains amounting to 13.4 million tonnes were lifted by the shopkeepers and the total food subsidy was Rs.21,200 cr. in 2002-03. The loss incurred by the Government in selling 1 kg. of food grain at Rs.5-6 per kg is Rs.16/- while they are selling in the open market at one-third of it.

Parikh (1994), on the basis of NSS data has demonstrated that in UP 98% of the rural household did not make any purchase from PDS. The per capita purchase from PDS was 0.21kg. only. PDS accounted for only 1.3% of all cereals purchased by rural households. Radhakrishnan and Subba Rao (1999) have estimated that income transfer per capita per month in the country from PDS was Rs. 2.3 in 1986-87. Kriesel and Zaidi (1999) have estimated that leakages amount to 40% of the food grains in the country. Dreze (2002) has noted that average consumption of food grains from PDS per capita per month at the all India level was 1.02 kg, in the rural areas and the same was 0.29 kg. in UP in 1999-2000. Srivastava (2000) has found that in UP only a quarter of poor households had used TPDS for making purchases from the same and that in the bottom three quintals the average purchase of food grains was 1.5 kg. per month. According to Economic Survey 2002-03 only 21 % of wheat and 22% of rice allotted to shopkeepers were lifted by them. Ahluwalia (1993) estimated that only 17% of wheat lifted by shopkeepers reaches the final consumer. Majumdar (2002) found that in Allahabad a BPL household got on an average 2.7 kg. of rice and 3.8 kg. of wheat per month. In Duddhi Block of South Eastern UP despite acute poverty 13% of BPL card holders did not purchase any foodgrains from PDS. Such households consume Khudi i.e. very small broken rice which sells cheaper than PDS wheat or rice. Being very poor they subsist on Khudi instead of PDS wheat or rice as the former is cheaper.

The principal reasons for not regularly purchasing foodgrains from PDS can be attributed to

(a) None knows when the shop opens.

(b) Open market price of khudi is cheaper.

(c) Not much difference between open market and PDS prices.

(d) No money with the poor when the shop is open.

(e) Shopkeepers reply that BPL supply has been stopped.

The subsidy that reaches BPL consumer may not be even 5% of total subsidy and Government incurs a loss of Rs. 20/- in transferring Rs. 1 to a BPL household.

CONCLUSION

It is imperative that farmers should be protected from the exploitation of traders through price manipulation. If a network of cooperative marketing cum credit societies is created through out the country each village could have its own godown where the farmers could store their produce. The banks can advance money to the cooperatives on the hypothecation of the produce which in turn can advance cash to member farmers to meet their immediate consumption needs. The cooperatives would sell when prices are favourable. This would end farmer's exploitation as price fixation would no longer be done by traders but by farmers' cooperatives.

The 9th Plan, reviewing the performance of PDS, underlines the stark reality. Inspite of mounting food subsidy evaluation studies indicate that supply of subsidised food grains through PDS has not resulted in improvement in household level food security. Self sufficiency of food grains at national level and availability of food grains at affordable cost at local level have not got translated into household level food security for the poor.

The present system of PDS should be replaced by a system of food stamps and eventually by a food credit card system.

The excess stock of food grains that have accumulated with FCI is partly the result of high MSP which often exceeded the level recommended by CACP.

The scheme for decentralised procurement of foodgrains should be encouraged and more states could be brought under its fold. The Essential Commodities Act should be amended to make it an emergency provision that will have to be formally invoked by notification for a limited period for specific commodities.

All restrictions on inter state movement of food grains should be removed.

To help the private sector to play an enhanced role in the distribution system 26% FDI should be allowed in food retailing and 100% FDI in insurance for agriculture.

ABSTRACT

Indian Capital Market Since Independence

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The whole history of the Indian capital market since independence, particularly after 1951 is a story of numerous diversifications and innovations introduced in the functioning of financial institutions with a view to expand and improve their performance in accordance with the changing needs of economy. However , the Indian capital market should be strengthened in order to meet the growing future requirement of the economy.

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ABSTRACT

Women Empowerment and the Role of Co-operative Movement in India

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Indian Co-operative Movement is now more than 100 years old. The entire nation has now observed the centenary celebration of the movement. It is one of the largest movements in the world and contributed substantially for bringing in green, white, yellow and blue revolutions. However the proportion of cooperatives owned, managed and controlled by women is very small but can grow in proportion in near future and help in the socio-economic empowerment of women and economic development.

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HUMAN DEVELOPMENT IN ORISSA

HUMAN DEVELOPMENT IN ORISSA

Social Inequality in the Health Status of Tribals in Orissa

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INTRODUCTION

It is widely accepted that the issue of inequality is not confined to only economic inequality but the wider issue that needs to be addressed is the 'inequality of opportunities'. This dimension has assumed specific significance recently in the context of economic reforms. It is apprehended that such type of inequalities will be further intensified as the poor, vulnerable and downtrodden sections of the society are likely to be marginalised in the reform process. If a person is handicapped by ill-health and illiteracy, it would be difficult to access the expanded economic opportunities. Education and health are recognised to be the two important factors which can promote the freedom and capability of individuals to make use of the available opportunities (Dreze and Sen, 1975). Policies for 'universal literacy' and 'health for all' can go a long way to increase the individual capabilities and greater access to the available economic opportunities.

India is committed to the goal of 'health for all' and in the last four decades a wide network of primary health centres and sub-centres has been established in the country. Yet, some states like Orissa, Bihar and Madhya Pradesh are far away from this goal. The situation is still worse in the tribal dominated Southern Orissa. Many surveys like National Family Health Survey (NHFS-1 and NHFS-2) and National Sample Survey (NSS) have provided ample evidence that either the health services do not reach the vulnerable and disadvantaged section of the society or this section do not utilize the available health services. Social stratification and cultural traditions determine the living conditions of the people which in turn affect their perception on health, knowledge of health care and accessibility to health resources (Kopparty, 1994). On the other hand, availability of food and purchasing power of individuals are the important determinants of nutritional status of a person. But it is affected by the diet pattern, living conditions, cooking practices and many cultural traditions like child rearing practices, pregnancy care practices etc.

The Kandhamal, a tribal-infested hilly plateau, is quite underdeveloped. The plateau of the Kandhamal is at a higher altitude with the height ranging above 1700 feet to 3500 feet from the sea level. It is replete with undulating terrains, sharp gorges and rivers, hilly tracts, forests and inaccessible areas. The tribes of Kandhamal are the aboriginal or indigenous people and are called the Kondh representing one of the oldest ethnological groups of the state. The district continues to languish in abject poverty with poor health status. Incidence of poverty is one of the highest (71.4 per cent) and health status is very poor among the districts of the state. This pocket of Southern Orissa is also socially and economically depressed (Panda and Sarangi, 2004 and Hann and Dubey, 2005). Heavy incidence and persistence of poverty and poor health status in this region has been a cause of concern for the State Government as well as the Government of India. This paper attempts to assess the inequality in the health status existing among the social classes like ST, SC and 'others' in the district of Kandhamal in particular and in the state in general.

2. OBJECTIVES OF THE STUDY:

The objectives of this study are as follows:

1. To present some of the common features and problems of the tribals to know the social and regional dimensions of health status in Orissa.

2. To examine the general health condition of the tribals in the state vis-a-vis in the sample villages.
3. To ascertain access to and utilization of public health care facilities by the tribal and their quality of life.

3. METHODOLOGY:

The study is based both on primary and secondary data. The secondary data sources of the study are the published information of Sample Registration System (SRS) Bulletin, National Family Health Survey and National Sample Survey and other Reports. The National Family Health Survey conducted by the International Institute of Population Studies (IIPS), Mumbai, provides data on a variety of health and nutritional indicator by caste/tribe, by education and by standard of living (which is taken as proxy for economic condition) etc. to examine the social inequalities in health status. To supplement the findings, primary data collected from 218 households from three sample villages, namely, Sunaponga, Munisigam and Khajurisahi in Tikabali Block of Kandhamal district of Orissa have also been used. The field survey was conducted during the period from December 2004 to March 2005.

4. GENERAL HEALTH STATUS

Health can be seen as an important determinant of well-being in the broadest sense of the term. Improved health is desirable to enhance the capability to work and to participate in economic development. Improved health and nutritional status also contribute to increase life expectancy by enhancing resistance to micro organisms. Good heath may be thought of as an important livelihood asset and illness can be a major cause of impoverishment. In this context, every individual has the choice to lead a healthy life and a reasonable life span and the state has to ensure this minimum requirement. But in Kandhamal, majority of the tribals lack access to public health care facilities and their quality of life is poor (Pothal, 2005).

4.1 Infant Mortality Rate:

The infant and child mortality rates are the robust indicators of overall health status of a population. Infant mortality rate is the most important indicator illustrating the level of human development of a nation or state. IMR below 10 indicates a high level of development and Kerala

with an IMR of 14 is the only state which is approaching that level. Infant mortality rates continue to be the highest in Orissa and MP followed by UP and Rajasthan. The IMR was 100.2 in rural areas, 66 in urban areas and 96.7 for rural-urban combine for Orissa. IMR is higher for males (97.3) and a little lower for the females (96) in the state. It has declined by 25 per cent i.e., at a rate of 1.6 per cent per annum during the period 1981-83 to 1995-97. The relative slow decline in IMR of the state can be partly explained in different components of IMR like Neo-Natal Mortality Rate (NNMR), Peri-Natal Mortality Rate (PNMR) and the Still Birth Rate (SBR). The figures for different components of IMR for the state in 1995-1996 were 60 for NNMR, 61 for PNMR and 17 for SBR (SRS Bulletin 2001). NNMR constituted 62.5 per cent, PNMR constituted 63.5 per cent and SBR constituted 17 per cent of the IMR in the state. Particularly four factors may explain the high level IMR in state: first, poor availability of professional attendants at birth; second, high percentage of low birth weight babies; third, lack of professional post-natal care and fourth, early marriage of girls.

In the state, the infant mortality rate and child mortality rate are also very high among the tribals. IMR was 153 for the district of Kandhamal in 1998-99 (NHFS-2, 1998-99). In the sample villages, average age at marriage is 19 years for ST girls and 20 years for SC and other girls. But the age at marriage is 18 years for ST boys and 20 years for SC and other boys. Early marriage of girls, especially, below 18 years may result in greater number of births and pregnancy complications which in turn adversely affects the infant mortality rate. In Kandhamal more than 50 per cent of girls get married before the age of 18 years. In addition to this, the other factors responsible for high IMR in the Kandhamal are child malnutrition because of protein-calorie deficiency, superstitious beliefs, illiteracy, and ignorance leading to defective antenatal, intra-natal and postnatal care, and lower economic status of the tribals, various diseases like sexually transmitted diseases (STD), anaemia etc.; physical labour and low nutritional status of the tribals. Sonaponga and Munisigaon still have little contact with medical facilities. Children die of fatal diseases in the event of absence of preventive and curative measures and treatment at the doorstep, because of distance and inaccessibility of villages.

4.2 Child Mortality Rate:

The child mortality rate (0-4 years) has shown a declining trend. The child mortality rate is also high in the state. In 1991, the crude death rate for the children (in the age group of 0-4 years) was 39 per cent which is more than three times the crude death rate (12.1 per cent) of the population of the state. It is declining slowly to 29 per cent in 1998. The child mortality rate in urban areas (18.6 per cent) is much lower than rural areas (30.2 per cent) in the state. The state figures are much above the all India figures of 29.1 per cent (for rural) and 12.8 per cent (for urban). But the Under 5 Mortality Rate (U5MR) was 104.4 which are about 4 times higher than Child Mortality Rate. The Under 5 Mortality Rate and child mortality rate for the tribal population are about 19.6 per cent and 52.7 per cent higher than the corresponding rates in the state. The tribal children generally suffered from three common childhood diseases like respiratory infections, diarrhoea and fever. It is surprising to note the percentage of children suffering from the above three diseases was lower (21.2 per cent) for ST population as compared to SC (48.1 per cent) and total population (46.9) in the state (NHFS-2, 199899).

Vaccine-preventable diseases are a major childhood killer. A reduction in IMR is possible only if all the causes of infant mortality are addressed simultaneously by means of improved maternal and child care, immunization to prevent vaccine preventable diseases, oral rehydration etc. Government of India has set ambitious targets for achieving universal immunisation and the achievements have not been so impressive in the state. But the immunisation coverage is the poorest for the tribal population as compared with other social groups and total population in the state. Only 26.4 per cent of the tribal population is completely immunised against all vaccine-preventable diseases while 18.2 per cent did not receive any vaccine and 55.4 per cent of the children are partially immunised (NHFS-2, IIPS).

4.3 Morbidity Rate:

It is generally noticed that there is an inverse relationship between overall mortality rate and the overall morbidity rate. With the decline in mortality rate, life expectancy increases and the chance of survival improves but the propensity to fall increases more or less proportionally with the mortality rate (Johnsson, 1991). Conversely, at a high mortality rate, morbidity rate tends to be less. The reasons are partially known.

As life expectancy of a person increases, the degenerative diseases become active which increases his illness perception. The morbidity rate is significantly higher in Orissa as compared to its neighbouring states like Bihar and Madhya Pradesh. It is 24.20 in rural areas and 24.38 in urban areas. The same is true for chronic ailment which is 2781 for rural areas and 2312 for urban areas per one lakh persons. This is what one may call excess morbidity burden (HDR, GoO, 2004).

Malaria, tuberculosis, gastroenteritis and vaccine preventable diseases have significantly contributed to morbidity. The state has witnessed about 62.8 per cent of all malaria deaths in the country (NMEP Report, 1999). This is mainly due to the predominance of the deadly *Plasmodium Falciparum* (PF) species of mosquito responsible for severe cerebral malaria. There is also a marked endemic nature of malaria noticed in the districts of Kandhamal, Keonjhar, Sundargarh and Mayurbhanj. These four districts account for 50 per cent of all PF malaria cases and 40 per cent of the malaria deaths. Tuberculosis also remains as a major public health problem in the state. The prevalence rate of tuberculosis is 1.76 per 1000 persons in 2000-01. In 2003, the reporting cases of severe diarrhoea were 1,44,672 resulting in 513 deaths with case fatality rate of 0.35 per cent. The two major diseases malaria and tuberculosis have been a cause of concern for the State Government. Apart from these, filariasis, leprosy, corneal blindness and goiter are the other major public health problems in the state.

The incidence of morbidity is high among the tribals in the state in general and in Kandhamal district in particular. To be specific the diseases from which the tribals suffer are malaria, meningitis, sickle-cell anaemia, G-6 PD deficiency anaemia, sexually transmitted diseases (STD), tuberculosis, various skin diseases including scabies, nutritional anaemia and hypoproteinemia, liver diseases etc. The causes for the occurrence of such diseases are: (i) malaria is due to the prevalence of high mosquito population, ignorance about sanitation, difficulty for DDT spray in inaccessible areas, illiteracy, superstitious belief, low economic status etc., (ii) sickle-cell anaemia, thalassemia, G-6 PD deficiency anaemia are due to hereditary-genetic causes, (iii) sexually-transmitted diseases (STDs) like syphilis, gonorrhea, yaws etc. are owing to promiscuous sexual relations among the tribals, (iv) tuberculosis occurs because of low resistance of the body, low immunity status, ignorance, illiteracy, low economic status and superstitious beliefs, (v) skin diseases are due to the causes like uncleanliness, ignorance, illiteracy, erroneous

habitations, impure and insufficient water supply, low economic status, (vi) nutritional anaemia and hypoproteinemia are due to ignorance, illiteracy, low economic status, superstitious beliefs, and alcoholism, (vii) liver diseases occur because of alcoholism, chronic ailing condition, and low economic status and (viii) meningitis is due to erroneous habitation, low economic status and ignorance, lack of sanitation, superstitious beliefs and alcoholism.

In comparison to the females, the health condition or the tribal males is worse. The male-folk are quite addicted to home-made liquor (made from Mahuwa flowers) and processed Salap. Most of them suffer from diseases like chronic malaria, sexually transmitted diseases like syphilis, gonorrhea, yaws, sickle-cell anaemia, tuberculosis, scabies etc. They have low nutritional status. The health condition of the tribal females is little better than the males. They suffer from anaemia, sickle-cell anaemia, sexually transmitted diseases like syphilis, gonorrhea, yaws etc.; chronic malaria, scabies etc. They have also low nutritional status. Their addiction to alcohol is less than the males. The lack of sufficient medical aid provided by the state government aggravates the situation. The tribals fight against diseases consisting of mainly exorcism sorcery and now and then recourse to some herbs administered by the village priest (gunias) and quacks. There is low nutrition level in their diet. Their diet lacks variety. Protein content is quite absent or low. Their diet is conspicuous in the absence of pulses, vegetables, milk etc. and hence, lacking in vitamins.

A picture of the general health conditions of the people in sample villages as presented in Table-I compiled from survey data reveals a low health profile among rural folk of the villages under study in Kandhamal.

The people in these areas do not maintain hygiene because of the lack or awareness. They kept utensil clean but they did not know the fact that flies infect food. They fall prey to many diseases because of lack of cleanliness, malnutrition, lack of medical facilities for curative and preventive treatment, and low economic status. The tribal areas of Kandhamal are notoriously malarial. Besides malaria which takes a heavy toll of lives, infectious and contagious diseases like scabies are also prevalent there. Moreover, it is found that owing to crude marital relations and promiscuity in sexual matters, venereal diseases like syphilis, yaws etc. are common among them.

4.3 Status of Women Health:

The health status of tribal women is not much worse when compared to their counterparts in other disadvantaged social groups (SC) and general population. However the incidence of anemia among tribal women (74.7 per cent) is significantly higher than the SC women (66.3 per cent) and general category women (54.4 per cent). It is 54.4 per cent for all women in the total population. There are two indicators of maternal health viz., extent of antenatal check-up and delivery care. Around 37 per cent of the tribal women do not have any antenatal checkup which is much higher than SC women (17.7 per cent) and general category women (14.6 per cent). It is 23.3 per cent for all women in the total population. The percentage of tribal women undergone professional antenatal checkup is also much lower (30.7 per cent) than the SC women (51.3 per cent) and general category women (77.1 per cent). It is 66.1 per cent for all women in the total population of the state. While institutional delivery is low (22,7 per cent) in the state, it is much lower for tribal women (8.7 per cent). Similarly, professional assistance during delivery is only 26.1 per cent in case of tribal women as against 42.3 per cent for SC women and 56.6 per cent for all women.

4.4 Availability and Access to Public Health Care Facilities:

Access to health care is the basic requirement and an important aspect of public health care services provided by the Government. One can distinguish between two type of access to health services viz, physical and economic. Physical access can be either population based or area based, The problem of physical access is compounded by two other factors such as conditions of road and transport connectivity. In Orissa the population coverage per public health facility is good compared to its neighbouring states but the area coverage is very poor. On the other hand, economic access refers to direct cost of accessing the services provided. The extent of household expenditure on health care is a good indicator of economic access. Thus, the poor physical and economic access affects the proper utilisation of available public health care facilities.

The existing medical facilities available in the district of Kandhamal cover 7 hospitals including one District Head Quarters hospital at Phulbani, one Sub-Divisional Hospital at Balliguda, 3 community centres (at Daringibadi, G.Udaygiri and Raikia), 48 primary health centres,

2 Mobile Health Units (MHUs) (for Balliguda and Phiringa Blocks), 13 Ayurvedic Dispensaries, 16 Homeopathic dispensaries in 2004. The number of beds per lakh of population in 2003 is 69 (GoI, 2004). Two Mobile Health Units are functioning in the district. Each MHU comprises one medical officer, one pharmacist, one female health worker and one attendant. The MHUs hold health camps in the remote and inaccessible areas and supply medicine free of cost to patients. There is a provision of distributing medicine worth Rs. 1,000/- per camp during their visit. But the sample villagers are deprived of such MHU. They have to depend on the PHC and the ayurvedic dispensary located at the Block Headquarters, Tikabali. Since the two sample villages Sunaponga and Monisigaon are far away from the Block Headquarters, the villagers are deprived of public health care facilities available at Tikabali. They are either depending on quacks or village priests for curing their disease. Table-3 describes the community-wise medical facilities availed by the sample households. It is seen that nearly 54.6 per cent of the households depend either on gunias and quacks or do nothing when diseases befall. This is due to traditional nature of the tribals, superstitious beliefs, illiteracy and ignorance.

The Family Welfare Programme is being implemented as a part of the National Production Control Programme. The programme is being implemented with full central assistance covering both population control and maternal and child health services. Both the sterilization methods-tubectomy and vasectomy are adopted as a family planning measure but tubectomy is very popular in the state. The new technique for male sterilization, namely, 'No Scalpel Vasectomy' is being popularised with UNFPA assistance. The number of sterilized persons is about 0.89 lakh, and IUD, contraceptive and oral pill users as family planning measure are 1.42, 2.85 and 1.38 lakh respectively in the state as on March, 2004 (GoO, 2005). While the number of sterilised persons is 1614, IUD, contraceptive and oral pill users as family planning measures are 3696 and 12021 respectively in Kandhmal during 2000-01. In the sample villages, out of 106 couples, 33 couples (31.1 per cent) have undergone sterilisation, 28 couples (26.4 per cent) have adopted tubectomy and only 3 ST and 2 SC couples have resorted to vasectomy. Other methods of temporary family planning such as IUD, oral pill, contraceptive and medical terminations of pregnancy are not so popular among ST and SC couples in the sample villages.

In the health sector also the tribal families are deprived of receiving the fruits of health sector delivery services and they remain marginalized on the outskirts of the society. They are still having a very low health profile.

5. CONCLUSION:

The Kandhamal district is sparsely populated with 51.5 per cent of it's population are STs and 18.2 per cent are SCs. Several socio-economic indicators highlight the backwardness of this region. The literacy rate at 52.7 is much lower than the state average of 63.1 per cent. The female literacy rate 36.2 per cent also compares unfavorably with the state average of 50.5 per cent. The child mortality rate (153) is the highest among the districts of the state. The population suffers from high morbidity on account of under nutrition as well as PH and endemic malaria and other localized diseases. Compared to national average of 36.8 per cent of girls marrying below the age of 18 years, this percentage is as high as 60.6 in Kandhamal district. As against the national average of 48 per cent users of family planning methods, this is only 38.7 per cent in Kandhamal district.

The population coverage of public health care facilities is a little better in Kandhamal but the area coverage is lower in the district than the KBK districts of the state. The number of hospital beds, bed-population ratio and doctor-population ratio are also far from satisfactory. Thus, the present health status of the tribals and the availability of health care service providers in tribal areas are not adequate in comparison to the state and national averages.

The quality of health services can affect health status but does not seem to influence the people's perception of their own health or the health care they are getting. Improving the quality of health care in an environment where the claimants themselves are not particularly interested in complaining about what they are getting will not be easy. The onus will have to be completely with the State Government either in the capacity as a direct provider or regulator of health services.

The major thrust of health policy is to achieve equity in health care by reducing the disparities across regions; gender groups, poor and the disadvantaged social classes (STs and SCs) and vulnerable groups (disabled persons and elderly persons) but so far desired results have not been achieved. A greater degree of inequality in health status and access to public health services still persists among the STs, SCs

and 'others'; over different regions (or districts) and between male and female population of the state.

Notes:

1. Sahu,1997, Panda and Sarangi (2004), Hann and Dubey (2003 and 2005), HRD, Government of Orissa, 2004 and many other studies estimated tribal poverty of the state using different methodologies.
2. The IMR, Neonatal and Peri-Natal Mortality Rate figures arc little higher in SRS Bulletin than NHFS-2 Reports. However, we have quoted the SRS Bulletin figures in the study.
3. Salap is a juice collected from Salap trees generally located in Hill terrains. The juice is then treated with a root and kept it for some time to increase its concentration. It is a popular drink among the tribals in Kandhamal.

REFERENCES :

Dutta, K.K. et al. (1980). Health and population, Perspectives and Issues, 3, pp282.

Government of India (2001). Registrar General, Sample Registration System Bulletin, 25, April, pp.126.

Government of India (2002). The Indian Child: A Profile, Department of Women and Child, Ministry of Human Resource Development, New Delhi.

Government of Orissa (1998). Health Statistics of Orissa, State Bureau of Intelligence.

Directorate of Health Services, Orissa, Bhubaneswar. Government of Orissa (2004). Human Development Reprt, Orissa, Bhubaneswar. Government of Orissa (2005). Economic Survey, Directorate of Economics and Statistics, Orissa, Bhubaneswar.

Haan, A.D. and A. Dubey (2005). Poverty, Disparity, or the Development of Underdevelopment in Orissa, Economic and Political Weekly, XL (18), N022 & 23, pp. 2321-29.

International Institute of Population Studies (2001). National Family Health Survey-2, Mumbai.

Johansson, S.R. (1991). The health transition: the cultural information of morbidity during the decline of mortality, Health Transition Review, I (1).

Panda, B.K.(1996). Consumption pattern in Orissa: An econometric analysis, Unpublished Ph.D. thesis submitted to Berhampur University, Berhampur , Orissa.

Panda, B.K. and P. Sarangi (2004). Incidence of poverty among the tribal in Orissa: An Empirical Analysis, Studies in History and Culture, 9 (2), pp. 81-93.

Panda, B.K., P. Sarangi and R.K. Panda (2005). Impact of water harvesting structures on cropping pattern and food security, Orissa Economic Journal, XXXVII (1 & 2).

Pannikkar, P.G.K. (1972). Economics of nutrition, Economic and Political Weekly, 7, Annual Number.

Pothal, S.P. (2005). Levels of living of tribals in Orissa, Unpublished M.Phil dissertation submitted to Berhampur University, Orissa.

Radhakrishna, R. (2005). Food and nutrition security of the poor: Emerging prospective, Economic and Political Weekly, XL (18), April-May, pp. 1817-1821.

World Bank (2002). Human Development Report, Oxford University Press, New York.

TABLE- 1

General Health Conditions of the Social Classes

Community	Good				Moderately Good				Bad			
	Adult		Child	Total	Adult		Child	Total	Adult		Child	Total
	Male	Female			Male	Female			Male	Female		
ST	78	116	67	261	84	98	85	267	81	58	45	184
SC	45	38	30	113	48	51	43	142	29	42	39	110
General	22	16	14	52	26	46	20	92	11	15	9	35
All House-holds	145	170	111	426	158	195	148	501	121	115	93	329
Percent	11.5* (34.2)	13.5* (35.4)	8.8* (31.5)	33.9*	12.6* (37.3)	15.5* (40.6)	11.8* (40.1)	39.9*	9.6* (28.5)	9.2* (24.0)	7.4* (26.4)	26.2*

Note : Figures in parentheses denote percentages of persons in their respective category.

** marked figures denote percentages of persons in total sample population*

TABLE-2

Duration of Suffering and the Number of Persons Affected in Malaria and Scabies, 2004-05

(in Number)

Sl.No.	Period of Suffering	Malaria	Scabies
1.	Less than one week	62	18
2.	One week	57	32
3.	Two weeks	44	41
4.	One month	39	11
5.	Two months	23	15
6.	Three months	31	12
7.	Four months	29	9
8.	Six months	16	14
9.	Eight months	23	11
10.	One year	18	18
	Total	**342**	**181**
		27.23	**14.41**

Note : Computed from official file data of PHC, Tikabali

TABLE-3

Community-wise Medical Facilities Availed by the Households

(No. of Households)

Community	Doctor	Quack	Gunia	Nothing	Total
ST	24	32	64	12	132
SC	13	17	24	11	65
Others	5	8	6	2	21
Total	42	57	94	25	218
Percentage	19.27	26.15	43.12	11.47	100.00

TABLE-4

Methods of Family Planning Adopted in the Sample Population'

(in number of couples)

Methods	ST	SC	Others	Total	Percentages
Tubectomy	13	9	6	28	26.42
Vasectomy	3	2	0	5	4.72
Other measures	2	5	4	11	10.38
Total	18	16	10	44	41.51
Percentages	16.98	15.09	9.43	41.51	

Note : Estimated from survey data. Percentage to the total no 106 couples below 45 years in the sample villages.

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HUMAN DEVELOPMENT IN RURAL ORISSA : A District Profile

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INTRODUCTION

Human Development (HD) in fact is at the heart of today's policy agenda of governments world over. It is vindicated by the fact that in addition to several regional reports, more than 360 national and sub-national Human Development Reports have been prepared by 120 countries. These reports have injected the human development concept into national policy dialogues not only through human development indicators and policy recommendations but also through the country specific process of consultation, data collection and report preparation. Furthermore, there are more than one Human Development Index (HDI) such as Income inequality adjusted Human Development Index (IHDI), Gender related Development Index (GDI), Gender Empowerment Measure (GEM), Capability Poverty Measure (CPM) and Human Poverty Index (HPI) constructed for different purposes. Indeed the Human Development Reports (HDRs) have helped to put forward forcefully the message that economic development has no meaning unless it expands human choices. Fundamental to enlarging these choices is building human capabilities the range of things that people can do or be in life. The most basic capabilities for human development are to lead a long and healthy life, to be knowledgeable, to have access to the resources needed for a decent standard of living

and to be able to participate in the life of the community. However, the practical usefulness and relevance of HDI may be seriously restricted if it is not used to facilitate disaggregated analysis and policy actions.

The overall index of a country/state conceals the fact that different regions within the country/state have very different levels of human development whereas disaggregated HDIs reveal a more detailed profile of human development. One important aspect of disaggregated analysis is that it becomes clear precisely what are the deficiencies in human capabilities in different regions and what specific aspect of human development should concern policy makers in future regional plans. It is realized that in every component of HDI (whether income, education or health) there are glaring interstate and intrastate disparities in India. When coupled with rural dimensions this disparity seems to be more intensified. This is corroborated by the world's best known welfare economist (A.Sen) that the success achieved in urban and industrial development have not made the lives of three-fourths of more than one billion Indians living in the villages any easy. The affluence in the urban centres has no assurance of development in the peripheries.

The aim of this paper is to reflect the underlying features of Human Development in rural Orissa focussing the chronically unprivileged classes of population who earn their livelihood without fundamental freedom of action and choice and are exposed to all kinds of ill treatments by the nature as well as institutions of the state and are powerless to influence key decisions affecting their lives. Materials and methods of the analysis are presented in section-II. The salient features of Human Development across the districts of rural Orissa are discussed in section-III. The findings and suggestions are presented in the concluding section.

MATERIALS AND METHODS

The present study makes use of secondary data collected from different publications of the Government of Orissa, Directorate of Economics and Statistics, and Planning Commission, Government of India. Since rural data relating to education, health and income are not available for the districts of Orissa, proxy variables have been used for analyzing the results. Per capita food grain production with one-third and the inverse of agricultural labourer as a percentage of total rural

main workers with two- thirds weightage, rural literacy as well as rural female literacy with equal weight and inverse of infant mortality rate and number of rural medical institutions with equal weights have been used to construct the rural income index, education index and health index respectively for the districts of Orissa. Finally these three indices are used to construct a composite index called rural Human Development Index across the districts of Orissa. This is the Simple Arithmetic Mean of the income index, education index and health index.

The formula used for calculating the indices is as per the UNDP norms.

$$\text{i.e.,} \quad Z_i = \frac{\text{Actual } X_i \text{ Value} - \text{Minimum } X_i \text{ Value}}{\text{Maximum } X_i \text{ value} - \text{Minimum } X_i \text{ value}}$$

Where X_i refers to the value of the variable of ith district and Z_i is the corresponding index of the ith district. It may be noted here that the value of the indices lies in between '0' and '1' for which the value of HDI also lies in the same range for individual district. HDI does not measure the absolute level of human development but rather assess as the relative position of the districts and ranks them in relation to each other. This helps to know how far the districts have come from the lowest levels and how far they will have to travel towards present highest level of development on each of the three indicators.

RESULTS AND DISCUSSION

The HDI value for each district indicates how far that district has to go to attain certain goals of human development or the present level of highest human development. The most desirable value of HDI is given as unity. The closer this value of a district is to one, the smaller the distance to be travelled by that district. UNDP has categorized human development into high HDI as above 0.8, medium as between 0.5 to 0.8, low as between 0.4 and 0.5, lowest as below 0.4. None of the districts in Orissa falls under the category of high HDI category of UNDP i.e., above 0.8. The present study has categorized human development into high HDI as above 0.6, medium as between 0.4 and 0.6 and low as below 0.4.

TABLE-1

Human Development Index for Rural Orissa

Sl. No.	Districts	Income Index	Education Index	Health Index	Rural HDI	Rank	Rank as per DDP
1.	Angul	0.39	0.73	0.26	0.460	16.5	2
2.	Bolangir	0.32	0.44	0.37	0.377	22	19
3.	Balasore	0.33	0.81	0.61	0.583	9	28
4.	Baragarh	0.58	0.66	0.41	0.550	11.5	17
5.	Bhadrak	0.51	0.91	0.54	0.653	4	29
6.	Boudh	0.38	0.49	0.35	0.407	20	21.5
7.	Cuttack	0.52	0.90	0.36	0.593.	6	7
8.	Deogarh	0.35	0.61	0.80	0.587	7.5	14
9.	Dhenkanal	0.43	0.80	0.15	0.460	16.5	13
10.	Gajapati	0.36	0.19	0.20	0.250	26	8
11.	Ganjam	0.39	0.53	0.25	0.390	21	15
12.	Jagatsingpur	0.52	1.00	0.57	0.697	2	9
13.	Jajpur	0.42	0.85	0.24	0.503	14	20
14.	Jharsuguda	0.48	0.74	0.54	0.587	7.5	1
15.	Kalahandi	0.28	0.26	0.51	0.350	23	26
16.	Kandhamal	0.35	0.38	0.23	0.320	25	18
17.	Kendrapara	0.52	0.96	0.59	0.690	3	3.5
18.	Keonjhar	0.34	0.56	0.44	0.447	18	11
19.	Khurda	0.71	0.91	0.71	0.777	1	3.5
20.	Koraput	0.39	0.00	0.30	0.230	28	13
21.	Malkangiri	0.43	0.03	0.15	0.203	30	21.5
22.	Mayurbhanj	0.33	0.40	0.97	0.567	10	24
23.	Nawrangpur	0.40	0.06	0.26	0.240	27	30
24.	Nayagarh	0.51	0.82	0.32	0.550	11.5	25
25.	Nuapara	0.38	0.20	0.39	0.323	24	27
26.	Puri	0.47	0.87	0.51	0.617	5	16
27.	Rayagada	0.35	0.05	0.23	0.210	29	10
28.	Sambalpur	0.50	0.67	0.28	0.483	15	6
29.	Sonepur	0.47	0.61	0.22	0.433	19	23
30.	Sundargarh	0.40	0.53	0.66	0.530	13	5
	Average	**0.43**	**0.57**	**0.41**	**0.469**		
	C.V.	**20%**	**53%**	**49%**	**33%**		

The income index, education index, health index and Human Development Index reflecting the rural characteristics of the districts of Orissa are shown in Table-1. In addition to these indices the rank of the districts based on the rural HDI and Rank of the districts as per District Domestic Product (DDP) are also shown in the table for a comparative analysis.

It is observed that Khurda (0.71) tops the list followed by Baragarh (0.58) so far as income index is concerned. On the contrary Kalahandi is found to have lowest income index (0.28). Bhadrak, Cuttack, Dhenkanal, Jajpur, Jharsuguda, Jagatsinghpur, Kendrapara, Nayagarh, Sambalpur, Sonepur and Sundargarh districts have this index between 0.4 and 0.6 while the rest of the districts have it below 0.4 indicating poor performance of the state in general and the districts in western Orissa in particular.

A cursory glance at education index reveals that rural literacy is highest in Jagatsinghpur followed by Kendrapara and Khurda and lowest in Koraput preceded by Rayagada and Nawarangpur. The mission of Total Literacy is found to have made no headway in the districts of Bolangir, Boudha, Gajapati, Kalahandi, Kandhamal, Koraput, Malkangiri, Mayurbhanj, Nawarangpur, Nuapada and Rayagada. It may be pointed out that these districts are home to a large percentage of disadvantaged people, mostly scheduled tribes. Though the other districts have fared well but still they have to go miles compared to the national average.

So far as health index is concerned it is observed that Mayurbhanj district is at the top followed by Deogarh . Contrary to expectations these two districts have low infant mortality rate either due to the fact that a large number of Christian missionaries are working and providing health services in these districts or the mortality cases go unreported as these districts are dominated by Scheduled Tribes and Scheduled Castes. Health care and health provision facilities are found to be better in the districts of Balasore, Bhadrak, Jagatsinghpur, Jharsuguda, Kalahandi, Kendrapara, Khurda, Puri and Sundargarh for which the health index seems to be almost satisfactory in those districts. Rest of the districts fare badly and require immediate attention.

TABLE-2

Levels of Human Development

Districts	Levels of HD
Bhadrak, Jagatsinghpur, Kendrapara, Khurda, Puri	High
Angul, Balasore, Baragarh, Boudh, Cuttack, Deogarh, Dhenkanal, Jajpur, Jharsuguda, Keonjhar, Mayurbhanj, Nayagarh, Sambalpur, Sonepur, Sundargarh	Medium
Bolangir, Gajapati, Ganjam, Kalahandi, Kandhamal, Koraput, Malkanagiri, Nawarangpur, Nuapada, Rayagada	Low

Looking to the Rural HD (Table-2) it is seen that among top five districts in terms of high rural HDI value are Khurda, Jagatsinghpur, Kendrapara, Bhadrak and Puri. These are all coastal districts with satisfactory values of income, education and health indices. The lowest positions are occupied by districts such as Malkanagir, Rayagada, Koraput, Nawarangpur, Gajapati, Kandhamal, Nuapada, Kalahandi, Bolangir and Ganjam with low rural HDI values less than 0.4. These districts are the backward and some of them are with Naxalite problems. The rest of the districts like Angul, Balasore, Baragarh, Boudh, Cuttack, Deogarh, Dhenkanal, Jajpur, Jharsuguda, Keonjhar, Mayurbhanj, Nayagarh, Sambalpur, Sonepur and Sundargarh have medium HDI values.

It is pertinent to note that the HDI values and rank of the districts as worked out and published in Human Development Report 2004, Government of Orissa is different from the corresponding figure of the present study. Since 85 per cent people live in rural Orissa, the present exercise gives better results compared to that given in HDR, 2004.

It is evident from the table that the average HDI of the districts stands at 0.469, which reflects the poor human development of the state. This low average HDI is due to low average income and health indices. Though the average education index value is 0.57 which pushes up the

average HDI, it is seen that the coefficient of variation is maximum (53%) for this index. The coefficient of variation for income and health indices stands in the order of 20 per cent and 49 per cent .It may be construed that poor performance in income generation is widespread in rural Orissa. Education though seems to give some comforts is concentrated in non-backward districts. Health consciousness and health services are found to be dismal throughout.

Finally it is worked out that the correlation coefficient between the HDI for rural Orissa and the District Domestic product (DDP) is very poor and stands at 0.28. This conveys the idea that economic growth is inadequate for human development.

CONCLUSION

The main findings that emerged from the present study are as follows :

- The value of HDI for rural Orissa as a whole turns out to be 0.469. This may be regarded as low by UNDP standard but as per our classification there is medium level of human development in rural Orissa. Of the three components of HDI, the education index has the highest weight (0.57) whereas the health index has lowest weight (0.41) and the income index (0.43) lies in between close to health index.
- Though the education index seems to be better, it has the highest variation 53 per cent compared to 20 per cent and 49 per cent variation in income and health indices respectively.
- The District Domestic Product has a very poor rank correlation coefficient with the HDI of rural Orissa indicating the fact that economic growth can hardly expand human choices if the income distribution is skewed.
- Districts such as — Bhadrak, Jagatsinghpur, Kendrapara, Puri and Khurda (the capital district of the state) have high HD values, while the industrially prosperous districts like Cuttack, Sundargarh, Angul and Jharsuguda fall in the medium category.
- As expected the KBK districts have the low levels of human development. It is disheartening to note that the measures taken by the central and state governments have not helped mud; even after more than one and half decades of economic reforms.

This necessitates to rethink and reformulate our policy approaches so as to break the vicious cycle of underdevelopment that is widespread in rural Orissa. Development of physical and social infrastructure is equally important. The sector that needs immediate attention is health sector. In addition to the existing literacy programmes, more health programmes are at the moment highly essential for human development in rural Orissa. This may be possible by organizing more health awareness camps in villages so as to help rural people give up superstitious beliefs and accept health related schemes launched by government from time to time. To accelerate income on a sustainable basis, the employment programmes are to be designed in such a way that physical infrastructure is created particularly for agricultural development that holds the key to rural development. These responsibilities are to be assigned to the panchayats where decisions of the local people matter to solve the local problems.

REFERENCES :

1. Geetha Rani, P. (1999) "Human Development Index in India : A District Profile", Artha Vijnana, Vol. XLI.
2. Kamdar, S. and Basak, A. (2005) "Beyond the Human Development Index, Preliminary notes on Deprivation and Inequality", EPW, Vol-XL, No.- 34.
3. Human Development Report (2004), Government of Orissa.
4. Economic Survey (2004-05), Government of Orissa.
5. Statistical Abstract of Orissa (2005), Directorate of Economics and Statistics, Orissa.
6. Orissa Development Report (2002) Planning Commission, Government of India, New Delhi.
7. Human Development Report (2001), Oxford University Press, New York.
8. Meyer, P. (2001), "Human Development and Civic Community in India, Making Democracy Perform", Economic and Political Weekly, Vol.- XXXVI, No.- 8, PP (624-692).

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DEVELOPING HUMAN CAPITAL IN ORISSA : Role of Education

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Physical capital and financial capital are essential inputs but not a sufficient condition for increasing national output. The other inputs are human capital, natural capital and social capital. In the present era of liberalisation and globalisation, the human capital is considered to be most important input in the development process of a nation. Particularly in case of Orissa, where higher proportion of people live below poverty line, its share in aggregate state domestic products of all major states in the country is gradually declining since 1991. Economic disparity among the states in India is growing in post-reform era. Prosperous states have prospered further while the poor ones like Orissa became poorer. The state with greater economic strength has gained at the expenses of poor states. The lion's share of forthcoming industrial investment proposals is also moving to industrially prosperous states. In spite of various Industrial Policies in Orissa since 1980, there is a process of deindustrialisation due to closure of big private sector units, loss-making PSUs, sick state sector establishments and vanishing of SSIs since 1990. Agriculture in the state is in shamble, when farmers are compelled to sell their paddy below the minimum price and the foodgrain production is declining. Therefore, in this scenario, where physical and finance capital are not moving into Orissa since 1991, the importance of human capital in the development process of the state

can not be ignored. Educational attainment is the major factor in accumulation of human capital. No single nation in the world with illiterate and uneducated people is developed and advanced. The percentage of growth rate explained by education varies from 11 per cent in Asia to around nine per cent in Europe.

Education Expenditure in Orissa :

Financing of education by government is the most important instrument for development of education in a poor state like Orissa to expedite the development process. However, after liberalisation and globalisation, in Orissa, between 199091 and 2000-01, the share of education in total budget expenditure is between 16 to 20 per cent. During the same period, the percentage of revenue expenditure on education was found to be around 20 per cent which is lower than that in Bihar and Assam at 28 and 25 respectively. In spite of this, the Government of Orissa has made the strong argument in favour of reduction of revenue expenditure on education in its White Paper. The White Paper suggests to cap the expenditure on education. Thus, though the fees of students in primary and upper primary schools are said to be free; irrespective of the financial conditions of the students, the development fees at the rate of Rs 60, Rs 150 and Rs 175 are being collected from each student at various stages. In addition to this, there has been increase in examination fees, fees for giving certificate, enrolment fees, etc. These steps adversely affect the poorer section of the students.

A perusal of data on inter-sector allocation within education revealed that the allocation towards elementary education within total educational expenditure moved within a range of 55 to 58 per cent between 1990-91 and 1998-99. The share of higher education and technical education in the total education expenditure declined from 14.39 per cent and 3.87 per cent in 1990-91 to 12.22 per cent and 1.19 per cent in 2000-01 respectively. The financial constraints in education have their implication on the performance of education sector in the state of Orissa.

Education in Orissa in 1990s :

The progress in education in Orissa during 1990s is not satisfactory. The number of new schools established during this period is below the expectation level. Table-1 shows that the enrolment ratio, drop-out ratio, student-teacher ratio, per student expenditure, etc. are dismal in 2000-01 compared to 1990-91. The student-teacher ratio in primary and secondary schools has increased from 37 and 19 in 1991-92 to 41 and 21 respectively in 2001-02. There is no increase in number of schools from 1995-96 as the number of primary and upper primary schools is constant at 42,104 and 11,510 during 1995-2001.

Orissa ranks 24th among the 35 states / union territories in India in terms of literacy rate in 2001. The overall **literacy rate** in the state increased by about 15 percentage point, from 49.09 per cent in 1991 to 63.61 per cent in 2001, while many other states could increase much faster. Besides average low literacy rate, there exists significant gender and regional disparities in the state; 50.97 per cent for female, 75.95 per cent for male; highest 80.19 per cent in Khurda district, lowest 31.26 per cent in Malkangiri district.

In order to improve the levels of education of population of a society, provisions of adequate and proper **educational facilities** are very much necessary. As per the national norms, accepted by the state government, a primary school is required to be provided in all habitants having a minimum population of 300 and within a walking distance of one km. The norm is 200 people in case of habitants located in hilly terrain areas and if it is in case of minority population. The sixth All India Educational Survey mentioned that there were 73,148 habitations in the state of which 60,289 (82.42 per cent) habitations had primary schooling facilities leaving 12,859 (17.58 per cent) habitants yet to be served by such facilities within one km of walking distance from the home of the child. The number of unserved habitants was highest (1,169) in Koraput district and the percentage was highest (35.40 per cent) in Rayagada district. It is to be mentioned that only 58.92 per cent of primary schools had pucca buildings. Less than one-third of primary schools in rural areas

had drinking water facilities. More than 85 per cent of school do not have any facilities for toilet.

As per the national norm, there should be an upper primary school for every two primary schools. Accordingly, in Orissa, for a total of 41,125 (36,306 primary schools and 4,819 primary sections attached to other categories of schools) institutions catering to primary education in 1993, there should have been 20,563 upper primary institutions (with class VI and VII). But there are only 11,022 institutions (10,259 upper primary schools and 763 upper primary sections). This obviously shows that universalisation of elementary education will be a distant dream in Orissa unless another 9,541 institutions are established in the state for the children **pushed out** of the orbit of upper primary education due to lack of institutions. The ratio of number of upper primary schools to number of primary schools has remained stable at 3:7 for the last several years. Likewise 23.67 per cent of habitations and 13.68 per cent of the population were not served by secondary schools within a distance of five kms. by 1993.

Government Resources, Education, Skill, Equity :

In recent times, particularly in the era of liberalisation and globalisation, there is decline in the state resources on the one hand and, increase in enrolment of students and more pressing need for improvement in quality of education. There is more talk to mobilise private resources, because of resources constraints in the states particularly in poor states like Orissa. The states have taken various steps to move towards privatisation. In Orissa, there has been a move to make some government colleges autonomous, revision of grant-in-aid code for private colleges and schools, and upward revision of fees in colleges particularly in technical colleges.

On the other hand, general state subsidies for various sectors catering to upper-income groups account for seven per cent of the gross domestic product, which is twice the total expenditure on health and education. Moreover, the share of expenditure on health and education

has been declining too. In market-related reforms in the era of liberalisation and globalisation, the government should take responsibility for creating facilities for and improving education.

Literacy and education help to improve the skill of a person. They have a large and significant impact on growth of productivity. Modem technology is easily adopted by the educated. Spread of technology depends on the earning potential and motivation that are linked to the development of formal schooling. Educational attainment and literacy have another important role in the society as they positively affect efficiency in resource allocation, leading to higher income and more equal distribution of such income. Since education has a strong impact on the individual's earnings, the net effect of the expansion of schooling has been a reduction in the dispersion of earnings and hence a more even distribution of income. However, basic and primary education has the highest impact on distribution of income, favourable to equity. So, there is greater need for the expansion of primary and secondary education. If primary and secondary education is provided under market conditions, as argued by the government in this era of liberalisation and globalisation, only those who can afford to pay tuition fees would benefit. Not only there be underinvestment on human capital from social point of view but income inequality too would continue from one generation to the next since education is itself a determinant of life-time income.

Hence full subsidisation of primary and secondary education is justified. The question of government withdrawing from this sector in the name of non-formal education does not arise at all. The government, instead of NGO and private sector, should take the full responsibility of primary and secondary education. Of course, the issue, in the present context of liberalisation, is whether higher education should be subsidised, to what extent and how ? In a poor state like Orissa, full subsidisation of the cost of primary and secondary education must be assured before thinking of reduction of grants and subsidies to higher education in the name of privatisation of source of educational finance. Again, before withdrawing grants and subsidies to higher education, government must stop general state subsidies to other sectors.

TABLE-I

Basic Features of School Education in Orissa

Sl. No.	Features	Unit	1991-92 (if otherwise not stated)	2000-01 (if otherwise not stated)
1.	Literacy rate	(%)	49.09 (1991)	63.61 (2001)
2.	Primary schools	(nos)	41204	42104
3.	Upper primary (UP) schools	(nos)	9818	11510
4.	Secondary schools	(nos)	4495	6165
5.	UP schools to primary schools rat	---	4.2	3.7
6.	Enrolment in primary schools	(lakh)	36.54	47.10
7.	Enrolment in middle schools	(lakh)	10.53	10.35
8.	Enrolment in secondary schools	(lakh)	7.79	10.83
9.	Drop-out ratio in primary schools	(lakh)	55.1 (93-94)	41.8
10.	Drop-out ratio in U.P. schools	(%)	66.2 (do)	57.0
11.	Student-teacher ratio (primary)	---	37	41
12.	do (UP)	---	28	27
13.	do (secondary)	---	19	21
14.	Per student budget expenditure at current price (elementary)	(Rs.)	531.8	1480.9 (98-99)
15.	do (secondary)	(Rs.)	617.3	3182.49 (do)

Sources: Offices of various Department of Government of Orissa.

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GENDER DISPARITY IN LIFE EXPECTANCY IN ORISSA

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It is a well-established fact that human resources are most vital of all resources. Human resources comprise both male and female population. Rapid economic progress is possible if both of them participate equally in the development process, as they are equal partners in the social life. Unfortunately in our country the status of women is very low and Orissa is no exception to this. We find in human development that there is wide discrimination against women.

Gender inequality leads to higher level of malnutrition, poverty, illness and other deprivations with an adverse impact on the quality of life, productivity of farms and enterprise and governance. Women are not only discriminated on the education front but also in terms of their access to health care facilities, reproductive rights, and nutritious food intake. In view of this the present paper is an attempt to study the gender disparity in life expectancy in Orissa.

The UNDP defines human development as a process of enlarging people's choice to live a healthy life, to be educated and to have access to resources needed for a decent standard of living. This means longevity, knowledge and decent standard of living. With this background three important indicators of human development are taken to study the gender disparity in the expectation of life at birth in the state. The indicators are :

- Literacy rate as an indicator of education.
- Infant mortality rate as an indicator of health and
- Work participation as an indicator of income.

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Life Expectancy

The health status is often the most sensitive indicator of the overall health condition of the society. Nature decreed that females of the species are biologically stronger, since survival and propagation of species are dependent on them. Females have greater life expectancy at birth than males in most of the countries of the world. This holds well in case of India also. But it is reverse in case of Orissa, which indicates deep-rooted bias against women from birth. Hence life expectancy is studied here to find out the degree of influence of other important socio-economic factors.

Table-1 presents life expectancy at birth in India and Orissa. This Table shows that the life expectancy of females remained always less than their male counterparts in Orissa in comparison to India.

TABLE-1

Expectancy of Life

Year	India		Orissa	
	Male	Female	Male	Female
1981	54.1	54.7	54.13	51.90
1991	59.7	60.9	57.13	55.15
2001	63.9	66.9	57.1	57.00

Source : Economic Survey, Orissa & India, 2003-04.

The trends of gender disparity in life expectancy at age one in Orissa from the years 1970-75 to 1992-96 are presented in Fig.-I.

Gender discrimination is one of the serious causes of lower life expectancy, which depresses the nutritional status of women. Women herself is not directly responsible for this, because traditionally in allocation of food, priority is given to the children and male members of the family. Most mothers consider their own nutritional needs as secondary to those of other members of the family. They are the ones who eat the left over items of food; after all male members have been fed. Despite the fact that it is she who sustains human race, still she is discriminated, oppressed and subjugated almost everywhere on this earth and at every step. (Rehman, 1995)

Another cause of the low life expectancy of women of Orissa is low level of education among women. The high life expectancy at birth in more literate societies can, at least partly, be attributed to higher consciousness on hygiene and health (Gupta, 1996). Normally one would imagine that more affluent societies would achieve higher expectancy of life at birth. But it is not so in India. Punjab and Haryana states with high income levels are way behind Kerala in life expectancy at birth, in which the latter has high literacy rate.

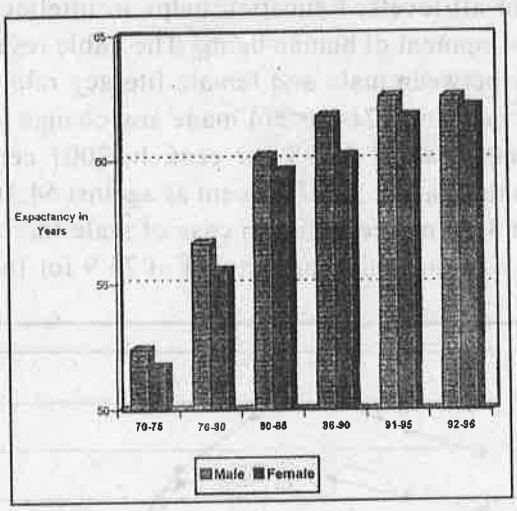

Fig.-1 : *Gender Disparity in Life Expectancy at the Age One.*

Infant Mortality Rate (IMR)

The IMR continues to be highest in Orissa among all states. In spite of several efforts by the government and the NGOs the rate of decline in IMR has been rather slow and this is a cause for concern. The various causes responsible for this high infant mortality rate are :

- Prematurity resulting in low birth weights
- Infection relating to circulating system
- Inadequate antenatal, natal and postnatal care
- Poor availability of professional attendant.

In the year 1971 the gap in the IMR of male and females was wider, the IMR of females remained below the males; but gradually both came closer from 1991 onwards and by the end of 1990s it came to equal rate. High IMR of males is mainly due to some complications specific to the male child, which came down gradually over the years.

The trends of change in the rates of IMR from the year 1971 to 2000 are presented graphically in Fig.-l. All the four indicators viz. expectancy of life, the IMR, literacy and work participation for males and females from the year 1971 to 2001 are shown in Table-2.

Rate of Literacy

Education is an important determinant of the status of women in the society. It is a life long process and is essential for human resources development at all levels. Education helps in intellectual, social and emotional development of human being. The Table reveals that there is wide disparity between male and female literacy rate. The gap which was 24.37 per cent in 1971 has not made any change in the year 2001 with almost same gap of 24.98 per cent. In 2001 census the female literacy rate in the state is 50.97 percent as against 54.16 at the national level, a gap of 3.19 per cent; but in case of male the rate is 75.95 per cent in Orissa as almost similar per cent of 75.9 for India.

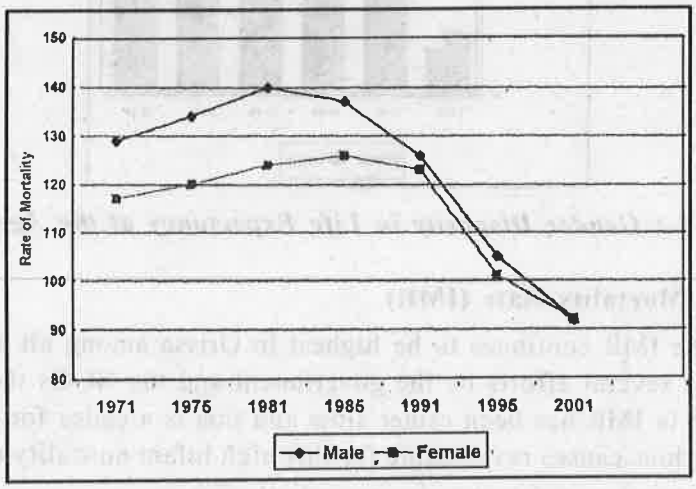

Fig.-2 : *Trends of Change in IMR of Orissa.*

Work Participation :

Development and modernization have helped the women world over to come out of the family, to participate in market process as workers, managers, employees and so on. In fact wage work has been used as a tool to remove gender imbalance. Neoclassical theorists stated that women have lower productivity than men, because of their lower level

of human capital, viz. education, training on-job experience and therefore they earn less. (Mincer and Polacheck 1974). Even today for a developing country like India the view holds good. The Table shows wide disparity between men and women in labour market. In comparison to male workers participation, the female workers form about only 24.62 per cent in the year 2001 as against 52.75 per cent for males. This is far from satisfactory in case of female workers. Of course it is found that the growth of female workers over the period of 30 years has increased by 138 per cent but on the other hand the rate of work participation has been reduced marginally for male workers, reduced by about 2.87 percent.

TABLE-2

Human Development Indicators in Orissa : 1971-2000

Year	Life Expectancy		Infant Mortality		Literacy Rate		Work Force	
	Female	Male	Female	Male	Female	Male	Female	Male
1971	48.79	51.43	117	129	13.92	38.29	10.47	55.62
1975	50.34	52.78	120	134	17.26	42.34	25.13	55.74
1981	51.9	54.13	124	140	20.6	46.39	19.81	55.86
1985	53.52	55.63	126	137	27.64	54.74	20.3	54.82
1991	55.15	57.13	123	126	34.68	63.09	20.79	53.79
1995	56.2	57.11	101	105	42.82	69.52	22.7	53.27
2001	57.0	57.1	92	92	50.97	75.95	24.62	52.75

Source : Census of India, 1991,2001, Economic Survey (Orissa) 2003-04.

The argument advanced in favour of privatisation are unacceptable for a poor country like India and more so in a poor state like Orissa. Of course, education is a merit good from which the community benefits to a large extent and, therefore, it is argued that the community should assume the major responsibility of financing of higher education. But community involvement in education, as prevalent in USA and other advanced western countries can not be expected in India and more so in Orissa where around half of the people live below poverty line.

Hence, state intervention in education– primary, secondary and higher- is a must in Orissa as well as in India. The relevant issue is the extent of grants and subsidies, and not the complete withdrawal of the state from the responsibility of higher education. The same logic is applicable to health delivery system which is most essential for human resource development.

Alternative Sources of Finance for Education :

If at all, there is genuine financial constraint on the part of the government, there are various other alternatives to recover the cost of higher education, without adversely affecting the equity such as—

(i) upward revision of tuition fees along with increase in number of students' scholarship covering fees, mess charge, clothes, text books, etc. and timely payment of the scholarship,

(ii) education loan with proper steps for repayment of these loans.

However all these sources would provide only a small fraction of the total requirement of financing higher education particularly technical education in Orissa as well as in India. Hence the deficit should be filled by grants and subsidies. While giving grants and subsidies to higher education, various criteria may be taken into consideration. Reduction of subsidies for education could be considered after the withdrawal of all types of general subsidies to different sectors.

Correlation Analysis :

Coefficient of correlation 'r' among the four human development indicators along with Correlation of Determination 'r^2' (shown in the form of per cents) for male and females are presented in Table-3 (A) and Table-3 (B) respectively in matrix form. The upper figures over the main diagonal are for the females and the lower for the males in both the matrices.

Male / Female	Table-3 (A) r				Table-3 (B) r^2			
	Life Exp.	Literacy	IMR	Work Force	Life Exp.	Literacy	IMR	Work Force
Life Exp.	0	0.9690	-0.6033	0.6039	0	93.89	36.39	36.47
Literacy	0.9400	0	-0.9782	0.5552	88.36	0	95.70	30.82
IMR	-0.5950	-0.8297	0	-0.5814	35.40	68.85	0	33.80
Work Force	-0.8738	-0.9739	0.8864	0	76.35	94.85	78.57	0

(1) Life expectancy and Literacy Rate: The table reveals that in case of female literacy, it is more influential with $r^2 = 93.89$ as against 89.36 per cent in case of males.

(2) Life Expectancy and IMR: Here again the female influence is more than the males. Their correlation is negative 0.60 which reveals good trend in reduction of IMR that increases the life expectancy.

(3) Life Expectancy and Work participation : Here the male work participation is dominant in determining life expectancy. The influence of females on life expectancy is less than half of the males in work participation, and hence their role is not significant.

(4) Literacy and IMR: Literacy has good influence of 95.70 per cent for the females and less with the males of 68.85 per cent. The negative correlation is as high as 0.9782.

(5) Literacy and work participation: There is good correlation between work participation and literacy with men accounting for 94.85 per cent in relation to a smaller percent of 30.80 for females.

(6) Work force and IMR : For females 'r' remained negative with -0.58 while for males it remained positive with 0.88. Males explain 78.57 per cent while females explain only 33.80 per cent.

CONCLUSION

There is direct functional relationship between the literacy and life expectancy in both the cases of male and female, but literacy has higher influence in case of females. So far as work force and IMR is concerned there is almost same correlation and influence on life expectancy. But in case of IMR both females and males have negative correlation of equal magnitude. Hence it can be concluded that in order to increase the life expectancy of females, priority should be given to literacy/and education schemes for women in five Year Plans.

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HEALTH, EDUCATION AND HUMAN DEVELOPMENT IN ORISSA

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Human capital formation plays a useful role in economic development. It is the most valuable asset. The knowledge and skills that individuals acquire and the institutional framework in which these get deployed together determine an economy's capacity to prosper. This is all the more relevant in the knowledge economy, in which the prime determinant of value is the knowledge wielded by workers. The Classical economist Adam Smith considered the acquired useful abilities of the people as part of capital. Irving Fisher took the concept of capital as all-inclusive. People are an important part of the wealth of nations, said Schultz. Investment in people can enlarge the range of choice available to them. "Unless societies recognize that their real wealth is their people, an excessive obsession with the creation of material wealth can obscure the ultimate objective of enriching human lives." (HDR 1994) Economic development without aiming at improving the quality of life of the people is meaningless. The very purpose of economic growth is to improve the living conditions of the people which obviously means improvement in health, education, sanitation, and so on. The elimination of illiteracy, ill health and other available deprivations are ends in themselves. At the same time health and education also accelerate growth in terms of GDP or per capita income. The need to focus on the issues which have a direct bearing on the quality of life has always been recognized.

Orissa is wallowing in a state of underdevelopment. Of late, it has taken various steps to accelerate its development through rapid industrialization. Policy measures are being taken to improve agriculture in all its facets. As improvement of social infrastructure facilities are

vital for the state's industrial and agricultural development, an attempt is made to assess the state of health and education in Orissa. The scope of health encompasses a number of aspects like malnutrition, maternal mortality rate (MMR), infant mortality rate (IMR), immunization, doctor-population ratio, number of medical institutions, etc. Similarly, education includes literacy, number of schools and teachers and students' enrolment and so on.

HEALTH

Health is an important element of well-being. The health facilities available to a person indicates his level of living. Enjoyment of health facilities has taken a place among the 'human rights'. Development of health services affects the other social and economic conditions. The state of a nation's health affects the input and efficiency of labour, which ultimately influence the level of output. Harvey Leibenstein emphasized that better nutrition is correlated with higher productivity. More particularly in a developing country the marginal productivity of health is likely to be higher relative to higher income countries. Improved health conditions are also likely to cause the decline in mortality rates.

In order to give access to health care facilities to the people in Orissa, various kinds of medical institutions have been established and the number of such institutions continue to grow over the years. It is seen that in 1997, there were a total of 1641 allopathic medical institutions consisting of 180 hospitals, 157 Community Health Centres, 185 PHCs, 14 Mobile Health Units and 1105 New PHCs. All these institutions together increased to 1701 in 2001. A district-wise break-up of the medical institutions shows that some of the districts like Sundergarh, Mayurbhanj, Keonjhar, Ganjam, Cuttack, Baleswar and Khurdha have more than 80 medical institutions each. On the contrary, some other districts like Boudh, Deogarh, Gajapati, Jharsugada, Malkangiri, Nuapada, Sonepur, and Nowrangpur lag behind.

There were a total of 4894 doctors in all these institutions providing health services to the people in Orissa in 2000. The number of doctors were more in the districts having large number of hospitals as compared to the districts having less number of doctors. The districts having less number of medical institutions are doctor-deficient districts. Each medical institution in the state served an average population of 21,580 and an average area of 92 sq. km. The bed population and the doctor-

population ratios are 1 : 2,663 and 1 : 7,560 respectively. When we turn our attention to the 12 tribal districts having 118 ITDA blocks, we find that there were 567 medical institutions with a total number of 3152 beds. The existing hospitals have a vacancy of about 700 doctors. The population being serviced per doctor is growing.

Because of the low cost and other beneficial effects ayurvedic and homoeopathic treatment has gained popularity in Orissa over the years. In 2001, there were 519 ayurvedic hospitals and dispensaries with 583 doctors. Similarly, there were 6 homoeopathic hospitals and 460 homoeopathic dispensaries with 468 doctors to provide homoeopathic treatment in the state. When we look at the availability of doctors in the state, we come to know that the state is suffering from a doctor deficiency syndrome. It is true that the population being served-per doctor is growing. However, the state needs to have more doctors. The ideal ratio of population per doctor is 1,000 as recommended by a Commission appointed by the Government of India. At the all India level, there are about 1700 people per doctor. Among the better states, Karnataka, for example has adequate number of doctors and each doctor serves 862 people. Maharastra and Kerala are also very close to the goal of 1,000 persons per doctor. However, Orissa has far fewer number of doctors and that translates into very bad medical facilities. For example, one doctor has to support 2,564 people in Orissa as it has serious scarcity of doctors. It needs to add more doctors to reach an acceptable level of adequacy.

Malnutrition not only blights the lives of individuals and families, but also reduces the returns on investment in education. It also acts as a major barrier to social and economic progress. From the human rights perspective malnutrition denies a child the opportunity to realize his/her complete inherent physical and cognitive potential. No nation in the world has achieved rapid economic growth with a high malnutrition rate. The economic loss of malnutrition to the nation is far higher than the money required to eradicate it. The per cent of underweight, stunted and wasted children in a state gives a picture of malnutrition among children. In Orissa, in the age group of 1-4 years, 53 per cent of the children are underweight, 48 per cent are stunted and 21 per cent of them are wasted. The prevalence of low birth weight babies, stunted and wasted children in Orissa is among the highest in India. A vast majority of the population suffers from chronic energy deficiency and

micronutrient deficiencies, especially iron, vitamin-A and iodine. A large percentage of pregnant women, adolescent girls and children below three years suffer from nutritional anemia which is a major cause of high infant and maternal mortality and low weight babies. Vitamin-A and iodine deficiency diseases are the other serious problems. A number of factors are responsible for this. Inadequate food intakes, disease and deleterious caring practices such as delayed complimentary feeding contribute to malnutrition among young children and pregnant women. While poverty largely explains the high level of malnutrition in Orissa, the additional factors responsible are the low status of women, which results in women and girls getting less than their fair share of household food and health care. Further, poor eating habits during pregnancy are also widespread. Inadequate diet among the poor results in the high rate of anemia and inadequate weight gain among pregnant women and low birth weight among their infants. Consequently, they end in failure to achieve full physical and mental potential, lower productivity, and blighted lives. Malnutrition, therefore, is seriously retarding improvements in human development. Further progress in human development in Orissa will be difficult to achieve without tackling the problem of malnutrition.

Maternity mortality is a fine measure of the quality of maternity services. The health care facilities offered by a community particularly maternity services for women are a significant index of the emphasis that a community places on the health of its women. Since pregnancy is a normal physiological process, the mother should not ordinarily die of child birth. However, many women suffer from ill health as a result of pregnancy. Orissa's MMR is deplorably high at 367 per one lakh live births (in 1998), which is higher than the states like Gujarat (28), Haryana (103), Karnataka (196), Kerala (196), Maharastra (135), Punjab (199), Tamil Nadu (79), and Andhra Pradesh (159). It is time, therefore, to view maternal mortality as violation of women's human rights and remedial steps are taken accordingly.

The infant mortality rate (IMR) is a crucial indicator of the population's well-being. It is an indicator of the social and health status of women and children in the state. It is a proxy for the economic condition of a community which reflects the availability of health services at the grassroots level.

Orissa has the highest IMR of 91 as against the national figure of 66 in 2001. Kerala had the lowest of 9 deaths per 1,000 live births. The

figure in case of Andhra Pradesh, Assam, Gujarat Haryana, Maharastra and Punjab are 66, 74, 60, 66, 45 and 52 respectively. The high IMR in Orissa raises serious questions about the efficient implementation of programmes concerning the welfare of women and children. Unless reducing infant mortality becomes a government priority, Orissa's economic prospects could well be compromised.

Immunisation programmes are undertaken to reduce infant mortality and maternal mortality rates. The purpose is to prevent contagious diseases like T.R, diptheria, whooping cough, tetanus, polio, measles, etc. Despite the huge success of pulse polio vaccination programmes at the state and national levels, the immunization levels for all other diseases covered under various government programmes are mot impressive. There is a sporadic outbreak of these diseases, especially diptheria and measles from time to time. Immunisation against diseases such as tuberculosis and measles continues to be poor in Orissa.

The number of persons affected by major diseases like malaria, tuberculosis, leprosy and blindness provides a gloomy picture of the health scenario in Orissa. The figures of the victims of these diseases in Orissa are higher than the all India figures. In case of Orissa 20,592 persons are affected by malaria per lakh of population. In addition to this 555, 96 and 3161 people are the victims of tuberculosis, leprosy and blindness respectively. At the all India level, the figures are like this : malaria (13,296), tuberculosis (467), leprosy (120), and blindness (3,001). In other states like Andhra Pradesh the incidence of these diseases per lakh population is 7,776 for malaria, 407 for tuberculosis, 118 for leprosy and 5,984 for blindness. The figures in case of Bihar were 5,712, 595, 123 and 2,749 respectively and for Madhya Pradesh they were 18,912 ,435, 136 and 3,831. All these are indicative of the poor health infrastructure facilities available in the state in tackling deadly diseases.

TRIBAL HEALTH IN ORISSA

Orissa has a tribal population of about 22 per cent and there are as many as 62 tribal communities. It is, therefore, pertinent to highlight some of the health problems that the tribals in Orissa face. As 90 per cent of the tribals in Orissa live below poverty line, many of them suffer from malnutrition. A number of deaths occurred due to malnutrition in the Makrudi and Kerpai Grampanchyats in Thuamul-Rampur blocks of

Kalahandi district in 2001. Tribals residing in the villages of Koraput district face tough time during the monsoon when diarrhoea takes away the lives of many people. Over one lakh tribals of Kandh, Saura, Paraja and Gadaba communities in the blocks of Laxmipur, Dasamantpur, Narayanpatna, Bandhugaon, etc. in the districts of Koraput, Bolangir and Kalahandi are vulnerable to diarrhea. Use of contaminated water is the main cause behind this. During 2001, a large number of cases of cerebral malaria were reported from the tribal areas of Koraput, Malkangiri, Nuapada, Keonjhar, Mayurbhanj and Phulbani districts (Khan : 2001). Cerebral malaria death rate is on the rise in Koraput, a tribal district. In 1998, thirty-one people died of this disease, which went up to 34 in 1999 and 44 in 2000. Tuberculosis has been found to be a serious problem for the tribals in Phulbani district (Mishra : 2001). About 2,040 people died of this disease in the district during 2000. Similarly, this disease is taking away the lives of about 500 tribal people in Koraput and Rayagada districts every year. Over 20,000 people are now suffering from the disease in these two districts. It has been estimated that nearly 1,000 tribal villages in these districts are prone to tuberculosis. The infant mortality rate (IMR) and the maternal mortality rate (MMR) are vary high among the tribal people. In some of the tribal districts they are on the rise. During a period of eight years, from 1993-2001, about 1,000 maternal and more than 5000 infant deaths were reported from the tribal blocks of Kaimela, Padia, Khairiput, Gumma and Korkunda blocks of Malkangiri district. All these are a tip of the iceberg to show the tribal health scenario in Orissa.

EDUCATION

Like health, education is a form of investment. In the *Principles of Economics*, Alfred Marshall regarded education as a 'national investment'. It is a prerequisite for improving agriculture and promoting industrialization. It has been considered similar to the production of physical capital goods. It is an important development factor. A number of studies made by Schultz, Harbison, Kendrick, Gary Becker, Bowmen, Simon Kuznets and others reveal that increasing outlays on education has a positive impact on economic development. According to them a unit of money spent on education brings a greater increase in national income than a unit of money spent on the development of tangible physical capital. W. Leontief, while explaining the international trade

theory found that the U.S. specialized in selling labour rather than capital intensive commodities because it had a greater comparative advantage in the skills possessed by its labour force. These skills were the outcome of education. Similarly, economic aid in the post-War period accelerated economic development in the countries where there were accumulated 'educational capital'. To cite an example is the aid provided for reconstruction activities in Europe under the Marshall Plan. On the contrary, aid provided to the developing countries was not very effective. The emergence of the former Soviet Union from a state of underdevelopment was possible partly due to the persistent effort to increase educational facilities. The success story of Japan is also attributed to this factor. The East Asian economic miracle was preceded and sustained by high public spending in education. Creating a skilled labour force is important if we are to accelerate our economic development and compete with the developed states of India. In view of this the quality and quantity of education available in Orissa is examined.

Literacy is an important parameter of measuring the educational attainment of any country or state. The literacy rate in Orissa is 63.6 per cent (2001) as against the all India average of 65.4 per cent. In Orissa the male literacy rate has increased from 63.1 per cent in 1991 to 75.9 per cent in 2001 while the female literacy increased from 34.7 per cent to 51 per cent. In 1950-51, there were only 9801 primary schools with 16,525 teachers and 3.15 lakh students in the state. Now the number of primary schools stands at 65,552 with 1,39,135 teachers and 5,296,000 students. Similarly, there are 12,406 U.P. schools, 6,165 high schools, 1,678 general colleges and 35 engineering colleges in Orissa. The total number of students at the high school level comes to 10,83,000. About 5,29,000 students receive general education at the college level. As against this the intake capacity of all the 35 engineering colleges in Orissa is 8,749 students. In addition to this, there is a provision for 4,955 students to receive technical education in 26 engineering schools/polytechnics in different parts of Orissa. All the 133 Industrial Training Institutes (ITIs) impart technical training to 16,304 students. The number of medical colleges (including allopathic, pharmacy, nursing, homoeopathic and ayurvedic, etc.) in Orissa is 30. The inadequacies of these have already been discussed in the preceding section. In 1990-91 the per capita government expenditure on education in Orissa (Rs.165.4)

was less than that of Punjab (Rs.260.2), Kerala (Rs. 242.7), West Bengal (Rs. 339.2), Gujarat (Rs. 223.4) and the national figure of Rs. 181.0.

Notwithstanding the fact that there has been a significant increase in the number of educational institutions, enrolment and number of teachers at all levels are much less. Many schools in the state are operating without proper building and related infrastructure. The national guideline provides that there should be access to a primary school within one kilometer and to upper primary schools within three kilometers from habitations having a minimum population of 300 and 500 respectively. During 2001-02, there was one primary school for every 3.6 sq.km. area and the teacher-pupil ratio was 1 : 41. The drop-out rate at the primary level was 41 per cent. It was 40 per cent for boys and 42 per cent for girls.

The 1678 general colleges in Orissa include 1,111 colleges which impart teaching at the higher secondary/+2 level and 567 colleges having facilities for teaching of degree courses. Twenty-four government colleges impart post-graduate teaching in 27 subjects. Out of the 1678 general colleges, there are 191 colleges which are exclusively meant for women. In addition to these colleges, higher education facilities are available in the nine universities of Orissa. Besides, there are 13 colleges for providing REd. and M.Ed. level teacher training. During 2001-02, the total students admitted to these teacher training colleges were 1,113.

The achievement of Orissa in creating educational infrastructure can be made clear if some of its educational attainments can be compared with that of the all India picture. When we compare the literacy level of Orissa to that of India, it is seen that the literacy gap between Orissa (63.86%) and India (65.95%) has narrowed down. On the contrary, the male literacy in Orissa (75.95%) has surpassed the male literacy at the all India level (73.85%). However, the state provides a dismal picture with regard to women's literacy rate. The state is better placed with regard to a few other educational aspects. In Orissa, the number of primary schools per lakh population is 119.17 while it is 64.94 for India. Similarly, in 1998-99 the gross enrolment ratio for primary schools in Orissa was 94.91 per cent as against the national figure of 92.14 per cent. The enrolment ratio at upper primary level (51.31) is not that encouraging. The enrolment ratio of girls both at the primary and upper primary level is lower than the national figures. The state

also lags behind other states in making provision for expenditure on education.

The dismal performance of Orissa in the health sector and the unimpressive achievement in education has placed Orissa at the 11th position of human development ranking with HDI value of 0.404 in 2001. It is slightly an improvement of its 12th position in 1991 with an HDI value of 0.345. The state, though does not lag far behind the human development performance at the all India level, has a low performance as compared to the states of Kerala, Punjab, Maharastra, Karnataka, Gujarat, etc.

CONCLUSION

The need for increasing investment in human capital formation is of crucial importance at the present juncture and this task cannot be put off further. We are, therefore, required to stress simultaneously on economic development in the conventional sense and social development. We need to fill in the gaps in the health and education sectors in Orissa as they have a telling effect on the quality of life of people in the state. Sound minds and sound bodies are the valuable assets. The state can ill-afford to allow malnutrition to decimate its human resources and productivity, especially when it aspires to make rapid economic progress. The Human Expenditure Ratio (HER) should be increased. Notwithstanding the financial severity faced by the state, it should strive to reach the mark of five per cent. The resources required for this can be obtained either from the Central government or borrowing from international agencies. If Orissa is to improve its ranking in the Human Development Index (HDI), the Union and the State governments cannot abdicate their responsibility towards citizens in the way they have done so far. Our leaders should realize that healthy and educated people provide the best guarantee for rapid economic development.

SELECTED REFERENCES :

Basu, S.K. 1993, "Health Status of Tribal Women in India", Social Change, 23(4), PP. 19-39.

Blaug, Mark. An Introduction to The Economics of Education, New York, Penguin.

Government of India. 2002, Orissa Development Report, New Delhi, Government of India, Planning Commission.

Government of India. 2004, Health Information of India 2002, New Delhi, Government of India, Ministry of Health and Family Welfare.

Government of India. 1995, National Nutritional Policy, New Delhi, Dept. of Women and Child Development.

Government of Orissa. 2004, Economic Survey, 2002-03. Bhubaneswar, Government of Orissa.

Khan, Imran. 2001, "Tribal Areas in the Grip of Cerebral Malaria", The Times of India, 14 Oct. 2001.

Mcclelland, David C. 1966, "Does Education Accelerate Economic Growth", Economic Development and Cultural Change, XIV, No.3, PP. 257-278.

Mishra, A.K. 2001, "5000 Tribals Die of Tuberculosis Every Year", The Times of India, 14 Oct. 2001.

Myrdal, Gunnar, 1968, Asian Drama : An Inquiry into the Poverty of Nations, New York, The Twentieth Century Fund.

Psacharopoulos, George, 1982, "Education as an Investment", Finance and Development, 19(3), PP. 39-42.

Schultz, Theodore W. 1968, "Investment in Human Capital", in Heinz Kohler (ed.) Readings in Economics, New York, Halt, Rinehart and Winston Inc.

Strauss, John. and Duncan Thomas, 1998. "Health, Nutrition, and Economic Development", Journal of Economic Literature, XXXVI, PP. 766-817.

Tilak, J.B.G. 1995, 'Cost Recovery Approaches in Education in India' Occasional Paper, New Delhi, NIEP A.

UNDP, Human Development Reports. (Various issues)

UNESCO. 1968, Readings in the Economics of Education, Paris, UNESCO.

"90 per cent of the Tribals are Below Poverty Line in Orissa," (in Oriya) The Samaj, 18 Dec.1999.

HUMAN DEVELOPMENT — A COMPARATIVE ANALYSIS OF STATES IN INDIA

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GENESIS OF THE IDEA OF HUMAN DEVELOPMENT

The Human Development Report of United Nations Development Programme came out in 1990 under the guidance of an eminent economist late Mahbub Ul Haq. More than 135 countries of the world have prepared similar reports for their countries. Many sub-national units and some supra-national regional bodies have also published human development reports for their respective areas. Various research organizations have undertaken extensive exercises for preparing this report for different areas. More than 500 reports have been prepared and published world over. Our Constitution, particularly its fourth part, shows its concern for people's voice along with human choices, human rights and human development and devised strategies to promote it. They tried to put human heart not human face in capitalistic framework. They were careful to include within its fold both economic development and social development and the latter included institutional development. In India many state governments had already published their human development reports before the Planning Commission came out with Human Development Report 2001 (NHDR).

MEANING OF HUMAN DEVELOPMENT

Human Development was used to denote 'widening of choices through enhancement of capabilities', rather than expansion of commodities. A capability could be equated with a trait of skill enhancement which improves one's choices without limiting those of others.

The approach of human development focused our attention on the achievement of a society in terms of longevity of life and health conditions as perceived in terms of morbidity and mortality, literacy and education in terms of enrolment and dropouts, availability of safe drinking water, sanitation and public health etc. Living longer being healthy, being literate and acquiring such traits of persons that help one to choose from a wider set of commodities have always been a constant endeavour of human race.

The result of consuming commodities will depend on the characteristics of the consumer and the society of which he/she is a member. A person may have enough money to have good food (which is available) and also a good stomach and therefore is capable of enjoying good food. Yet he/she may choose to fast. This is a situation of choice. It is different from the one in which either you do not have enough money or there is not enough good food available and you have to starve. All these situations are different from the one in which you are not well to enjoy food (capability). Human Development insists on capabilities – capability to enjoy good food, capability to be well dressed, capability to be well read, and capability to participate in one's community and so on. A more capable person enjoys greater freedom to choose to lead the life that he or she values. Human Development is not the ultimate insight in to development but one of shifting fashions and new ideas that will replace it.

MEASUREMENT OF HUMAN DEVELOPMENT

Human Development approach insists the UNDP concentrates on ends not the means. The Report provides details and analyses various dimensions. Various aspects also require some kind of quantification. Human development has been conceptualized at the individual level and is concerned with capabilities rather than achievement.

Capabilities defined as a set of functioning have a limitation of being measured. Moreover when it comes to assessing human development at an aggregate level it is the achievement level which becomes important.

After a lot of deliberations the UNDP team decided to construct what it called human development index and choose the following three key components: longevity, knowledge and income.

Longevity was always measured in terms of life expectancy at birth and it is taken to reflect total health conditions of people though Amartya Sen has called it quantity of life. Knowledge to begin with was measured in terms of adult literacy rate, adult being defined as persons above 25. Later knowledge was replaced by educational attainment and it was measured by adult literacy rate and mean years of schooling with 2/3rds and 1/3rd weights. Still later mean years of schooling were placed by combined enrolment ratio, denominator being the population of age group 6-23.

Level of living was represented by per capita income. The UNDP measured per capita income in purchasing power parity dollars which was transformed. The attempt through the transform was to make it reflect diminishing returns to income terms of well-being.

These aggregates were converted into unit less of achievement levels before they were aggregated. Actual achievement levels are first rescaled with reference to corresponding minimum achievement levels which are then divided by the range/span of achievement over the minimum.

The plausible figures that were chosen as goal posts are : 25 years and 85 years for life expectancy, '0' and '100' percent for literacy '0' and '100' percent for combined enrolment ratio, and PPP $ 40,000 for income per capita.

All three dimensions are said to have been given equal weights. But one can see that there are four variables and only two of them have the weight of 1/3. Adult literacy rate has the weight of 2/9 while combined enrolment ratio has that of 1/9.

The UNDP divided countries into 'low', 'medium' and high HDI countries depending upon the levels of HDI below 0.5, between 0.5 and 0.8 and 0.8 and above.

MEASUREMENT OF HUMAN DEVELOPMENT IN INDIA

The Human Development Report of India represents longevity and health through a combination of life expectancy at age one (with weight 0.65) and reciprocal of infant mortality rate (with weight 0.35). It is reminiscent of physical quality of life index where both had equal weight of 1/3rd.

To represent knowledge component the HDR chooses adjusted intensity of formal education (with weight 0.65) and literacy rate for the age group 7 years and above (with weight 0.35). Intensity of formal education is defined as weighted average of enroled students from class I to class XII with weight. Proportional to the level of class- that is the number of years a current enrolee has been in school. Since only a proportion of population (relevant age group for schooling which is 6-18) actually goes to school, this intensity of education is adjusted multiplying it with this proportion.

In case of level of living, instead of income per capita monthly consumption expenditure per capita is used.

OBJECTIVES

Considering the importance of Human Development in the present economy the study was planned with the following objectives :

- to study the rank of Orissa and ensure comparability of human development index across states of India during 1981,1991 and 2001.
- to study the share of Education and Health in the public expenditure of the state in comparison to the shares of other states and level of change.
- to study the level of development of indicators of human development of Orissa in comparison to other states of India.

METHODOLOGY

The study is based on the secondary data. The required information has been collected from statistical reports, various articles in journals and books. The data collected from these sources have been compiled, regrouped and reclassified for the purpose of the analysis.

ANALYSIS

The Human Development Index of 32 states and Union Territories presented in TABLE-01 indicates that during the year 1981 only Chandigarh and Kerala are in the medium Human Development Index level. Except these two all other states and Union Territories are at low level of HDI. Orissa occupies the 27 the position among the states and Union Territories.

During the year 1991 though there is general improvement in the Human Development Index of all the States and Union Territories, the states like Kerala, Goa, Mizoram, Manipur and the Union Territories like Chandigarh, Delhi, A & N Islands, Pondichery, Daman and Diu have done well. All these states are in the medium level whereas all other states are at low level. Though there is improvement in the HDI of Orissa but from the rank point of view it has the 28th position. Except Arunachal Pradesh, Madhya Pradesh, Uttar Pradesh, and Bihar all other states and Union Territories are ahead of Orissa on the Human Development aspect. Similarly during 2001 no estimation has been made in the States and Union Territories like Chandigarh, Delhi, Goa, A & N Islands, Pondichery, Mizoram, Daman & Diu, Manipur, Lakshadweep, Nagaland, Himachal Pradesh, Sikkim , Gujarat, Jammu and Kashmir, Meghalaya, Dadra & Nagar Haveli, Assam and Arunachal Pradesh. Among the rest of the 14 states Orissa occupies the 11th rank. Though states like Madhya Pradesh, Uttar Pradesh and Bihar are lagging behind Orissa in Human Development the states like Kerala, Punjab, Tamilnadu, Maharastra, Haryana, Gujarat, Karnataka, West Bengal, Andhra Pradesh, and Gujarat are ahead of Orissa in Human Development Index Value.

TABLE-1

Human Development Index 1981,1991 And 2001
(According to rank of 1991)

Sl. No.	States/Union Territories	1981		1991		2001	
		Value	Rank	Value	Rank	Value	Rank
1.	Chandigarh	0.550	1	0.674	1	ne	
2.	Delhi	0.495	3	0.624	2	ne	
3.	Kerala	0.500	2	0.591	3	0.638	1
4.	Goa	0.445	5	0.575	4	ne	
5.	A & N Islands	0.394	11	0.574	5	ne	
6.	Pondichery	0.386	12	0.571	6	ne	
7.	Mizoram	0.411	8	0.548	7	ne	
8.	Daman & Diu	0.438	6	0.548	8	ne	

Sl. No.	States/Union Territories	1981		1991		2001	
		Value	Rank	Value	Rank	Value	Rank
9.	Manipur	0.461	4	0.536	9	ne	
10.	Lakshadweep	0.434	7	0.532	10	ne	
11.	Nagaland	0.328	20	0.486	11	ne	
12.	Punjab	0.411	9	0.475	12	0.537	2
13.	Himachal Pradesh	0.398	10	0.469	13	ne	
14.	Tamilnadu	0.343	17	0.466	14	0.537	3
15.	Maharashtra	0.363	13	0.452	15	0.523	4
16.	Haryana	0.36	15	0.443	16	0.509	5
17.	Gujarat	0.36	14	0.431	17	0.479	6
18.	Sikkim	0.342	18	0.425	18	ne	
19.	Karnataka	0.346	16	0.412	19	0.478	7
20.	West Bengal	0.305	22	0.404	20	0.472	8
21.	Jammu & Kashmir	0.337	19	0.402	21	ne	
22.	Tripura	0.287	24	0.389	22	ne	
23.	Andhra Pradesh	0.298	23	0.389	23	0.416	10
24.	Meghalaya	0.317	21	0.365	24	ne	
25.	Dadra & Nagar Haveli	0.276	25	0.361	25	ne	
26.	Assam	0.272	26	0.348	26	ne	
27.	Rajasthan	0.256	28	0.347	27	0.424	9
28.	Orissa	0.267	27	0.345	28	0.404	11
29.	Arunachal Pradesh	0.242	31	0.328	29	ne	
30.	Madhya Pradesh	0.245	30	0.328	30	0.394	12
31.	Uttar Pradesh	0.255	29	0.314	31	0.388	13
32.	Bihar	0.237	32	0.308	32	0.367	15
	All India	0.302		0.381		0.472	

Note : ne- No estimate was made for these states

Source : Tenth Five Year Plan 2002–2007, Vol-III (Based on National Human Development Report 2001, Planning Commission)

TABLE-2

Share of Expenditure on Education And Health in Total Public Expenditure (in %)

States	Education		Health		Social Sector	
	1980-81	1998-99	1980-81	1998-99	1980-81	1998-99
Andhra Pradesh	14.35	12.98	7.63	8.45	21. 98	21.43
Arunachal Pradesh	NA	12.04	NA	5.43	NA	17.47
Assam	12.76	26.34	5.23	4.65	17.99	30.99
Bihar	13.19	21.16	5.49	4.81	18.68	25.97
Goa	14.47	NA	5.11	NA	19.58	NA
Gujarat	12.55	16.:8	6.08	5.41	18.63	21.79
Haryana	12.06	14.50	6.51	3.84	18.57	18.34
Himachal Pradesh	13.38	16.83	10.65	6.38	24.21	23.21
Jammu & Kashmir	10.37	10.90	11.82	5.16	22.19	16.06
Karnataka	13.30	17.94	5.48	6.02	18.78	22.16
Kerala	25.30	18.73	9.57	5.47	34.87	24.20
Madhya Pradesh	10.82	16.36	7.59	5.80	18.41	22.16
Maharastra	14.63	17.67	6.53	4.84	21.26	22.51
Manipur	12.25	18.62	8.66	4.67	20.91	23.19
Meghalaya	9.97	16.95	15.34	7.22	25.31	24.17
Mizoram	NA	12.97	NA	4.93	NA	17.90
Nagaland	8.03	9.55	9.57	5.39	17.6	14.96
Orissa	12.35	17.16	6.70	5.58	19.05	22.74
Punjab	16.99	15.76	6.52	4.73	23.42	20.49
Rajasthan	13.07	19.53	10.21	6.42	24.28	25.96
Sikkim	8.1 1	7.31	5.65	2.84	13.76	10.15
Tamilnadu	14.38	19.76	6.56	8.32	20.94	25.08
Tripura	11.60	17.23	4.57	4.69	10.17	21.92
Uttar Pradesh	13.15	18.31	5.89	4.10	19.04	22.41
West Bengal	15.92	17.78	9.07	6.49	24.99	24.27
Union Government	2.70	3.90	1.40	5.78	4.10	9.68

NA : Not Available

Source : Planning Commission Tenth Five-Year Plan 2002–2007 Vol.-III.

For increasing Human Development Index the share of expenditures on Education and Health in total public expenditure has a significant role to play which has been depicted in Table-2. The Table shows that education expenditure ratio has increased in all states barring Kerala, Punjab, Andhra Pradesh, and Sikkim. The educational expenditure in Rajasthan, Madhya Pradesh and Bihar among the major states and Meghalaya, Tripura and Manipur among the small states has risen by more than 50 per cent and in Assam it has risen more than 100 per cent. Assam spends more than a quarter of its budget (26.34 per cent) and Bihar more than one-fifth (21.16) on education. While this ratio of Bihar and Assam exceeds that of Tamil Nadu (19.76) and Rajasthan (19.53) Orissa does much better than Bihar though it spends far less in terms of education expenditure ratio and is not a rich state. For good number of reasons the outcomes are not found to be commensurate with the ratio. (1) Total spending may not be very large (ii) They may be making up for the past (iii) Implementation and follow-up may not be very effective.

So far as health expenditure ratio is concerned during the eighties and nineties all southern states barring Kerala have improved and the outcomes are pretty good in terms of life expectancies and infant mortality rates. Once people's health improves and there are not many children needing medical care, health expenditure, which is largely on medical care, needs no increase. In case of Jammu & Kashmir where this ratio has significantly gone down from 11.8 per cent to 5.16 per cent. It might be that expenditure on internal security forms a large proportion of total state budget.

In quite a few states health expenditure ratio has actually gone down whether it is east or the west or the north or the northeast. If it is happening in richer states it may be more people are spending more money from their private purses in private clinics and therefore the state has relatively withdrawan from the scene. But decline in states like Bihar, Orissa, Uttar Pradesh, Madhya Pradesh and Rajastan puts one thinking why the demand should decline and if the demand has not declined why the states are falling behind in their duty. Heath conditions should have improved for a rise in life expectancies across ages in all states and drastic reduction in infant mortality rates.

CAUSES OF LOW HUMAN DEVELOPMENT INDEX IN ORISSA

There are several causes for which the rank of Orissa in Human Development Index is low.

(i) Life expectancy in Orissa is very low – it is 60.05 for males and 59.71 for females in 2001-06.

(ii) The Infant mortality rate is very high. In 2002, it is 87 per thousand births.

(iii) The literacy rate of Orissa during 2001 is only 63.61 percent.

(iv) The Gross enrolment ratio for classes I-VIII (6-14 years) in Orissa during 2002-2003 is 85.61 percent.

(v) Besides the above indicators the per capita income per annum of the state is only Rs.10,208 at current prices in the year 2002-03.

CONCLUSION :

It has been rightly said that long life is good, but with health, physical health is good that comes along with mental health. Mental health comes with being employed. If combination of productivity rise and growth rate does not produce enough work for all willing persons, HDI cannot increase.

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Education : Key to Economic Growth Through HRD

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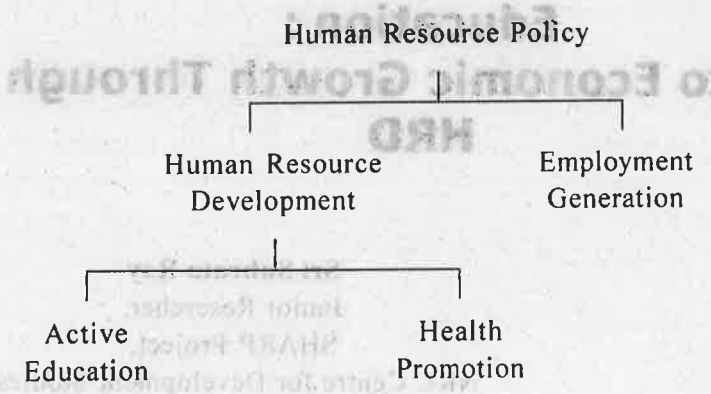
The alarm caused by population explosion is well known. Population, however, when channelised and given a direction becomes working force or manpower as is evident from the history of Chinese people. And the manpower when disciplined creatively becomes human resource. The concept of human resource assumes that human beings are a great asset. Notwithstanding human beings merely as 'capital assets' and their importance for promotion of productivity at different levels of the economic system, qualitative factors including social values, motivational patterns, potentials of developing entrepreneurial capabilities, their rights and duties as citizens, creating social awareness and raising levels of politicisation are being considered as important areas of analysis to view human resources development as an integrative process. In economic terms human resource development means accumulation of human capital and its effective utilisation for the development of an economy. Human resource development as an important input of economic development has long been recognised. Studies by individual scholars and independent organisations have time and again pointed to the fact that unless adequate attention is paid to develop qualitative aspects of human beings, the development process in underdeveloped economies cannot be speeded up.

We can bifurcate human resource policy as follows :



Research shows that a substantial portion of the unexplained residual in the growth of output could be due to growth in the quality of labour, more specifically education (Denison 1963 and 1967).

Education contributes to growth at least in two distinct ways as Denison (1963) observed: first, it raises the quality and correspondingly the productivity of the labour force; secondly, education accelerates the rate at which society's stock of knowledge itself advances.

Education not only increases the quality of the labour force and indirectly contributes to economic growth but also contributes to economic growth directly through the advance of stock of knowledge. Education "helps to train research workers by handing on to them the sum of knowledge accumulated so far and instructing them in the use of scientific methods; while by encouraging a creative approach it makes the population large more receptive to change, raises the general standard of information, reduces the time lag between creation and innovation etc." (Malassis, 1976:35)

There has been ample evidence to show that workers with education (or more education) earn more than illiterate (or less educated) workers. It implies that education imparts knowledge and increases the economic productivity. A better educated labour force will be better able to learn about and to utilise the most efficient production practices. All this results in higher economic growth and higher standards of living.

Measurement of the quality of labour

Measurement of quality of labour is a necessary prerequisite for making proper estimate of the contribution of labour quality to economic growth.

Labour force in any given economy distributed by levels of education itself may give some idea about the quality of the labour force of the economy. But such figures fail to reveal the differences in the quality of education which the labour force had received. The differences in the quality of education can be captured to some extent, if we consider the investment in education or the productivity of education. Earlier efforts at measurement have taken two main forms: the amount of investment made in education and training imparted to the labour force and the occupational distribution of labour force. While in the former method, education entered directly, in the latter, education entered in a round about way.

Education in Orissa

Education plays a pivotal role in the socio-economic development of a nation. The Government of Orissa formulated its goals for the education sector (Government of Orissa, 1995a). They were as follows :

(i) universalisation of elementary education and five years of primary education by 2007, and eight years of elementary education by 2010;

(ii) universal literacy-literacy rate of at least 88 per cent-by 2011 and total literacy by 2015;

(iii) functional skill development in adult education;

(iv) modernization of technical education;

(v) consolidation of higher education by focusing on quality and standards in higher education; and

(vi) language development to foster unity and integrity of the country amidst diversity.

The Das Committee Report in Orissa laid special emphasis on elementary education and intended to cover three major aspects in this context :

(a) universal access and enrolment,

(b) universal retention of children upto 14 years of age, and

(c) substantial improvement in the quality of education to enable all children to achieve essential levels of learning (Government of Orissa 1997, 2001a).

Literacy is an indicator of socio-economic development of a society. A society with higher percentage of literates attains higher level of development and vice-versa. Literacy and educational attainment positively affect efficiency in resource allocation leading to higher income and a more equal distribution of such income. However, the equity effect depends on the level of expansion of schooling. Basic and primary education has the highest impact on distribution of income favourable to equity, while the equity impact of the expansion of post-graduates education may well be negative. Thus, there is greater need for the expansion of primary and secondary education in Orissa.

The overall literacy rate in Orissa has increased by about 15 percentage points between 1991 and 2001, from 49.09 per cent to 63.61 per cent. This increase is roughly the same for India and for states with comparable levels of literacy in 1991. However, as per the 2001 Census, Orissa still ranks a lowly 24th among 35 States/Union Territories.

In order to increase the literacy level of the state, various strategies have to be adopted conducive to the society. The availability of school facilities and quality of infrastructure has a strong bearing on the efficiency-internal and external- of the system, influencing enrolment/ non-enrolment, dropout/retention and achievement levels.

There has been a substantial growth in the number of schools in the state. In 1947-48, the primary, upper primary and secondary schools in the state numbered 6,814; 286; and 106 respectively. By 2000-01, this had increased substantially to 42,104; 11,510 and 6,165 respectively (Table-1).

TABLE - 1

Growth in the number of schools in Orissa

Year	Primary	Upper Primary	Secondary	Primary to Upper Primary Ratio
1947-1948	6,814	286	106	23.8
1950-1951	9,801	501	172	19.6
1960-1961	21,858	1,307	452	16.7
1970-1971	26,462	4,193	1665	6.3
1980-1981	35,893	7,958	2443	4.5
1990-1991	40,293	9,562	4475	4.3
1999-2000	42,104	11,510	6094	3.7
2000-2001	42,104	11,510	6165	3.7

Source : (i) Directorate of Elementary Education, Government of Orissa, Bhubaneswar.

(ii) Directorate of Mass Education, Government of Orissa, Bhubaneswar.

Public expenditure on education in Orissa has increased from Rs.43 million in 1960-61 to Rs.17,357 million in 2000-01 i.e. by over 400 times. But this increase is in nominal terms. The real increase (i.e, adjusted for increase in prices) would be very small. For example, between 1990-91 and 2000-01, the real increase in public expenditure on education in the state was only two per cent, while the nominal increase during the same period was four times. The growth of budgetary expenditure on education at 1993-94 prices during the period 1990-91 to 2000-01 can be observed from the table (Table-2) below.

The level of expenditure on education is relatively very low. For example, at current prices, the state spent Rs.416 per capita on education in 1999-2000, while the corresponding figure at the national level was Rs.620. However, the progress in the percentage of expenditure on education to GSDP is not steady. Annual fluctuations are very wide.

TABLE - 2

Budget Expenditure on Education in Orissa

Year	At Current Prices (Crore Rs.)	At 1993-94 Prices (Crore Rs.)	Percent of GSDP	Percent of Total Budget
1990-91	451.03	611.98	4.56	16.45
1991-92	539.01	642.44	4.21	16.38
1992-93	616.96	668.43	4.49	16.97
1993-94	681.44	681.44	4.30	16.75
1994-95	811.84	721.64	4.28	17.41
1995-96	928.38	763.47	3.99	18.05
1996-97	1,065.22	837.44	4.80	17.79
1997-98	1,195.09	899.92	4.36	18.69
1998-99	1,461.76	1,038.92	4.96	18.90
1999-00	1,913.77	1,317.12	6.13	20.67
2000-01	1,735.72	1,114.78	5.64	17.95

Source : Government of Orissa, Finance Accounts, Finance Department, Bhubaneswar, various years.

Research shows that allocations to quality related inputs such as teachers' training and provision of textbooks, stationery and other classroom teaching and learning material would pay rich dividends in the form of improved levels of participation of children in schooling, lower rates of dropout and higher rates of achievement. But only a negligible amount of the budgetary resources is allocated to these in Orissa as in many other states in India. So additional requirement of resources for universalisation of elementary education is needed for economic growth in Orissa. The Vision 2020 Report (Government of Orissa 2002e) visualises Orissa as one of the most prosperous and developed states in India by the year 2020 for which constant and vibrant efforts in exploiting the human resource particularly in education are needed to be initiated.

CONCLUSION

Reviewing Indian experience, it is found that India spent very large absolute amounts on educational development. This resulted in the phenomenal growth in the number of educational and technical institutions, though the amount as percentage of the total plan has been steadily decreasing. Same is the case with Orissa. The greatest deficiency in this plan is the lack of backward and forward linkages in manpower planning and its full utilisation. Forecasts and target setting have not proved to be effective in the state. Finally, quality of education in Orissa leaves much to be desired. Though education has grown enormously, yet it has not been able to establish backward and forward linkages with economic development of the state. Hence, its developmental impact remains still peripheral. So there is an immediate need to review the whole of education policy. Additional resources have to be tapped through fiscal measures to fund human resources development. Right type of monitoring and qualitative improvements can only develop the right type of manpower to assist the development process of the economy.

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HUMAN RESOURCE DEVELOPMENT IN ORISSA-PRESENT SCENARIO

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The greatest asset of every nation is its human resource. There is need for qualitative and quantitative development of human resources. It is time to introspect, analyse and evolve various strategies to harness the abundance of human resource available for the benefit of the economy. Possibly, the key to such a strategy is scientific manpower planning and development, which in current literature is termed as Human Resource Development. D. Morris in the 1980s has undertaken Physical Quality of Life Index (PQLI) in which he used three indicators such as (a) Life expectancy (b) Infant mortality and (c) Literacy to construct a simple composite index. For each indicator I represents the 'worst' performance and 100 represent the best performance. This led to the development of Human Development Index (HDI) of to-day prepared since 1990 by the United Nations every year under the United Nations Development Programme (UNDP).

UNDP defines human development as "the process of enlarging the range of people's choice-increasing their opportunities for education, health care, income and employment and covering the full range of human choices from a sound physical environment to economic and political freedom." Thus HDI (Human Development Index) is a composite index measuring average achievement in three basic dimensions of human life a long and healthy life, knowledge and decent standard of living.

Prof. Gunnar Myrdal viewed that the above factors are insufficient and suggested to include the provision of health-care, education, nutrition, shelter, drinking water and employment for achieving the twin objectives of growth with equality and modernisation with self-reliance.

Prof. Amartya Sen suggested 'promoting human capabilities' for attaining higher standards of health, knowledge, self-respect and the ability to participate actively in community life. The relevant capabilities are being free from starvation, from hunger, from under nourishment, participation in community life, adequate shelter and so on. These capabilities will increase 'freedom of choices-political, social and cultural'. The UNDP incorporated Sen's views.

India's global position on human development Index has decreased from 123 position in 1991 to 127 in 2004. Human Development Index of major states is given in Table-I. When we consider the case of Orissa, we find that poverty ratio is highest in India. And further, the incidence of poverty is highest among the scheduled tribes both the rural and urban areas of Orissa in 2002. As per data published by NSSO in 2001-02, rural Orissa is most illiterate in India. Orissa also tops the IMR and MMR lists-96 per 1000 and 739 per 1 lakh live births respectively.

TABLE-I

Human Development Index of Major States in 2000

H.D.I.	States
High H.D.I.	Maharastra (83.42), Punjab (79.42), Haryana (78.10), Gujrat (77.32), Tamilnadu (76.64), Kerala (74.09), Karnataka (73.88)
Medium H.D.I.	West Bengal (68.67), Andhra Pradesh (68.53), Rajasthan (66.89), Madhya Pradesh (63.98), Assam (63.83), Orissa (61.74)
Low H.D.I.	Uttar Pradesh (54.23), Bihar (46.09)

Note : Estimates using revised weighted average index.

There are some painful facts relating to human resource underdevelopment in Orissa. These are—

1. 92.29% of rural households and 40.31% of urban households do not have latrine facilities in their houses.

2. Even while forest area in our state is diminishing day by day, it is painful to mention that 74.83% of rural households and 35.80% of urban households still use the firewood as fuel for cooking.
3. About 55 lakhs (33.85%) married couples of the state do not have independent sleeping rooms.
4. Out of 7870127 households of the state, only 687284 households (about 9%) have the taste of tap drinking water and the balance 91% depend on hand-pumps (28%), Tubewells (27%), Wells (29%), Tanks or Ponds (2%), Rivers, Canals (3%) and spring and other (2%).

We can construct HDI of Orissa by Considering 10 Socio-economic Variables based on 2001 census. These are—

X_1 = Population growth rate of the state.

X_2 = Compound growth rate of the S.D.P.

X_3 = Per capita net S.D.P.

X_4 = Population below poverty line.

X_5 = Urbanisation in the state.

X_6 = Infant mortality rate.

X_7 = Child mortality rate.

X_8 = Life expectancy age at birth.

X_9 = Literacy rate.

X_{10} = Gross enrolment ratio (Class I to V)

Where first five variables (X_1 to X_5) determine economic status, (X_6 to X_8) health status and (X_9 to X_{10}) focus on level of knowledge of the people.

To find out HDI for each State, we have to measure the derivation coefficient.

Model-1 $$Iij = \frac{(Max \cdot Xij - Xij)}{(Max \cdot Xij - Min \cdot ij)}$$

Where,

Iij = Deprivation coefficient for the state with respect to ith variable.

Max. Xij = Max. Value of the ith variable.

Min. ij. = Min. Value of the ith variable.

Xij = Value of the variable of the state.

Model-2

Ij = Average deprivation coefficient of the Jth state.

Model-3 HDIj (1-Ij)

Where,

HDIj = H.D.I. for Jth State.

Ij = Average deprivation coefficient of the Jth state.

Analysis and Result : HDI and Ranks

1.	Kerala	(0.788)
2.	Tamilnadu	(0.685)
3.	Punjab	(0.681)
4.	Maharastra	(0.679)
5.	Gujrat	(0.622)
6.	Karnataka	(0.574)
7.	West Bengal	(0.556)
8.	Haryana	(0.497)
9.	A.P.	(0.487)
10.	Rajasthan	(0.309)
11.	Assam	(0.267)
12.	Orissa	(0.227)
13.	U.P.	(0.227)
14.	M.P.	(0.201)
15.	Bihar	(0.191)

Gender Development Indices (GDI) and Gender Empowerment Measures (GEM) cannot be ignored in the study of human resource development as these examine whether women actively participate in the economic and political life and in the decision making as men. At present, gender disparity has become an important issue because women constitute 70% of poor and two-thirds of the World's illiterates.

The following components and variables are included to construct the GDI for 15 major states of India.

1. **The income component** : Per capita income of women is calculated by estimating women's share in the S.D.P. For this purpose, WFPR (Women Work Force Participation Rate) and Male-Female Wage Ratio of agricultural labour are considered. Secondly percentage of women in voting and representatives in parliament and assembly elections indicate their political participation and awareness.

Variables for constructing GDI :

X_1 = Per capita income of women in the state.
X_2 = Ratio of females per 1000 males.
X_3 = Life expectancy at birth.
X_4 = Maternal Mortality rate.
X_5 = Morbidity Rates.
X_6 = Percentage of households using pollution fuels.
X_7 = Literacy rate of females.
X_8 = Retention rate after class V.
X_9 = Non-enrollment rate.
X_{10} = Percentage of households having neither sanitary, Electricity and water facilities.
X_{11} = Non-Farm employment.
X_{12} = Rapes per lac population.
X_{13} = Unnatural death of women.
X_{14} = Percentage of Women Voting in Parliament.
X_{15} = Percentage of Women Voting in Assembly Election.
X_{16} = Percentage of Women members in Parliament.
X_{17} = Percentage of Women MLA in Assemblies.
X_{18} = Percentage of girls and boys in the age group of 0.5 years.

X_7, X_8, X_9 and X_{18} provide educational attainment component, X_3, X_4, X_5 and X_6 relate to health status component, X_{10} relates to housing status component, X_{11} indicates employment diversification and X_{12} to X_{17} relate to empowerment of women.

Result and Analysis : GDI (Composite)

1.	Punjab	(0.70)
2.	Maharashtra	(0.65)
3.	Gujrat	(0.62)
4.	Kerala	(0.60)
5.	Tamilnadu	(0.59)
6.	Haryana	(0.59)
7.	Karnataka	(0.55)
8.	West Bengal	(0.52)
10.	Assam	(0.41)
11.	U.P.	(0.3)
12.	Rajasthan	(0.29)
13.	M.P.	(0.28)
14.	Bihar	(0.27)
15.	Orissa	(0.18)

From the above results we can analyse inter-state gender development indices as follows :

a) Per capita income of females in West Bengal, U.P., Punjab, Kerala, Haryana, Bihar and Orissa is low compared to the rest of the states. However, non-farm employment is higher in Punjab, Kerala and West Bengal.

b) Rajasthan, Bihar, U.P., M.P., A.P. and Orissa have very low women education status compared to other states.

c) U.P., Bihar, M.P., Rajasthan and Orissa have low women health status.

d) Orissa, Bihar, Assam, Kerala, Rajasthan and M.P. Have low housing status.

Social sector is gaining importance day by day after it has been accepted as a vital determinant of human development. But there is less investment in health care facilities, primary education, water supply and sanitation, housing, nutrition, social development of SC ST people etc. by the State Government in the annual budgets from 1995-96 to 2003-04. (Vide Table-II). Social sector expenditure shows that the State is gradually withdrawing from fulfilling its commitment to the common man.

TABLE-II

Social sector Expenditure as a percentage of Total state Expenditure (including W & M Advances)

Demands under Social Sector	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Education, Sport, Art and Culture	15.17	12.97	12.82	13.48	13.81	1.86	9.45	9.26	11.82
Health and Family Welfare	4.41	3.41	3.26	3.70	3.07	2.83	2.42	2.93	3.58
Water Supply Sanitation, Housing and Urban Development	3.16	2.56	2.68	3.04	2.44	1.94	1.93	1.95	2.80
Information and Broadcasting	1.11	0.09	0.08	0.10	0.07	0.06	0.05	0.06	0.06
Welfare of SC, ST and OBC	2.76	1.98	1.79	2.08	1.66	1.38	1.45 1.34	2.07	
Labour and Labour Welfare	0.23	0.23	0.18	0.22	0.16	0.14	0.11	0.11	0.13
Social Security and Welfare	4.81	3.77	3.23	2.45	7.45	2.40	2.82	4.09	4.63
Others	0.20	0.16	0.14	0.23	0.18	0.38	0.11	0.13	0.18

Source : Annual Financial Statements 1995-96 to 2001-02, Finance accounts 1995-96 – 2001-02, Government of Orissa.

One of the main causes of low Human Development Index in Orissa is less budget allocation in social sectors. Expenditure on Health and Family Welfare was 4.41% during 1995-96, which was reduced to 2.42% in 2001-02. In other social sectors like sanitation, housing and urban development expenditure has declined from 3.16% to 1.93%, expenditure on welfare of SC and ST people declined from 2.76% to 1.45% during the same period of time. Reduction of allocation to the social sector implies that the state is gradually withdrawing from fulfilling its commitment to the common mass.

REFERENCES :

1. *Districts at a Glance, 2005 Orissa, Directorate of Economics and statistics Orissa, Bhubaneswar.*
2. *Census of India 2001, Final Population Totals : A Brochure Orissa, Director of Census Operations and Joint Registrar General, Orissa.*
3. *Ministry of Health and Family Welfare, Govt of India.*
4. *Central Statistical Organisation, Government of India.*
5. *NCDS, Orissa Development Report 2002, Planning Commission, Govt of India.*
6. *Annual Financial Statements 1995-96 to 2001-02, Government of Orissa.*

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PUBLIC ACTION AND PROGRESS IN HUMAN DEVELOPMENT IN KORAPUT DISTRICT

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INTRODUCTION

Human resource development has been visualised "as a process of enlarging people's Choices" (UN-Development Report, 1990). There is a widely shared view that human resource development refers to improvement in capabilities of people. But, at all levels of time, the essential ones are for people to lead a long and healthy life, to acquire knowledge and to have resources for decent living standards. The inclusion of income is justified on the ground that it enables the exercise of choices with respect to educational attainment and life expectancy. Undoubtedly, per capita income may be considered as an indicator of development but it does not capture in total quality of living of people of a region, and thus there is a need to develop a complete index of welfare to throw light on the quality of living of people in a state or region. Such an effort encompasses welfare in a boarder sense as compared to NSDP per capita.

Some of the basic ingredients of development identified by Amartya Sen are education at all levels, alleviation of poverty, safe drinking water,

prevention of environmental degradation, adequate medical and health care, and fight against malnutrition.

The aforesaid indicators of human development may be supplemented by the following elements of living standards of people identified by the census of 2001, Government of India. They are housing conditions, availability of drainage and latrine facilities, provision of separate living rooms for newly married couples within the premises of the house, possession of assets like four wheelers, scooter and cycle, lighting by electricity, accessibility of drinking water by tap. The aforesaid elements of human development may possibly enhance skill and efficiency of people and thereby facilitate utilisation of manpower and material resources of a region in the right direction.

The objectives of the present paper are to analyse human development in Koraput District and examine public action and its impact on human development. The study is based on both primary and secondary data.

FEATURES OF THE DISTRICT

While Meher's study specifies Koraput district as a marginally backward district, the Orissa Development Report considers Koraput as the most backward District in Orissa. Koraput District, one of the least urbanised districts in Orissa epitomises massive material deprivation of people as manifested in tribal backwardness, hill area backwardness, backwardness due to recurring natural calamities and depletion of natural resources.

A vast segment of population of the district does not avail banking facilities. Earlier studies of Koraput district (Eswar Rao Patnaik, 1995) confirm that, social sector development of the region reveals "deprivation in well-being" of people. The highland region reveals material deprivation, social deprivation, and intellectual deprivation as identified by World Development Report, 2000-01. Material deprivation entails lack of income and assets. Social deprivation relates to deprivation of education and limited educational opportunities, deprivation of health and poor access to health services. Intellectual deprivation involves poverty of education and skills and social opportunities and restricted scope of social mobility.

TABLE-1

Sl. No.	District/ State	% of Net Irrigated Area to Net Area Sown (1994-95)	Avg. Yeild Rate of Paddy per Hect. in qtls. (1996-97)	% of NFS Workers (1991)	Regd. Factory Workers per 1,000 Pop (1993-94)	Per Capita ind. Value Added (in Rs.) (1993-94)	% of Urban Pop (1991)	% of non-depressed Pop (1991)	% of Literacy (1991)
1	2	3	4	5	6	7	8	9	10
1.	Kalahandi	18.50 (70.53)	7.49 (75.43)	16.11 (59.67)	0.52 (9.09)	12 (2.26)	6.91 (51.64)	54.11 (87.85)	31.08 (63.31)
2.	Nuapada	13.16 (50.17)	6.74 (67.87)	14.10 (52.22)	0.61 (10.66)	31 (5.85)	5.49 (41.03)	50.96 (82.74)	27.52 (56.06)
3.	Bolangir	8.37 (31.91)	3.55 (35.75)	20.01 (74.11)	2.92 (51.05)	14 (2.64)	10.51 (78.55)	62.55 (101.56)	38.63 (78.69)
4.	Sonepur	59.85 (228.17)	16.37 (164.85)	17.73 (65.67)	2.23 (38.99)	24 (4.53)	7.30 (54.56)	68.40 (111.06)	42.62 (86.82)
5.	Koraput	19.70 (75.10)	14.22 (143.20)	20.59 (76.26)	3.25 (56.82)	851 (160.57)	16.67 (124.59)	35.92 (58.32)	24.64 (50.19)
6.	Nabarangpur	6.26 (23.87)	14.82 (149.24)	12.11 (44.85)	0.70 (12.24)	169 (31.89)	4.97 (37.14)	29.64 (48.12)	18.62 (37.93)
7.	Malkangiri	34.16 (130.23)	13.37 (134.64)	9.89 (36.63)	0	0	8.16 (60.99)	21.69 (35.22)	20.04 (40.82)
8.	Rayagada	27.49 (104.80)	11.27 (113.49)	18.67 (69.15)	6.30 (110.14)	1248 (235.97)	12.51 (93.50)	29.68 (48.19)	26.01 (52.98)
	Orissa	26.23 (100.00)	9.93 (100.00)	27.00 (100.00)	5.72 (100.00)	530 (100.00)	13.38 (100.00)	61.59 (100.00)	49.09 (100.00)

TABLE-1 *(Contd.)*

Sl. No.	District/ State	No. of Med. Centres per 10,000 Pop (1995-96)	No. of Centres Med. per 100 sq.km. Area (1995-96)	Railway Route Length per 100 sq.km. (1995-96)	Road Length per 10,000 Pop (1997)	Road Length per 100 sq.km. (1997)	% of Villages Electri-fied (1995-96)	No. of Banks per 10,000 Pop	Credit Deposit Ratio (1996-97)	CDI
1	2	11	12	13	14	15	16	17	18	19
1.	Kalahandi	0.54 (105.88)	0.73 (69.52)	0.45 (31.91)	107.49 (155.67)	145.33 (103.43)	55.63 (79.47)	0.68 (100.00)	69.45 (141.71)	75
2.	Nuapada	0.49 (96.08)	0.67 (63.81)	0.93 (65.96)	144.07 (208.65)	198.47 (141.35)	65.32 (93.31)	0.60 (88.24)	67.55 (137.83)	82
3.	Bolangir	0.48 (94.12)	0.90 (85.71)	2.68 (190.07)	67.59 (97.89)	126.66 (90.21)	82.17 (117.39)	0.58 (85.29)	58.26 (118.87)	8.
4.	Sonepur	0.55 (107.84)	1.11 (105.71)	0	80.62 (116.76)	163.99 (116.79)	75.49 (107.89)	0.59 (86.76)	90.16 (183.96)	99
5.	Koraput	0.54 (105.88)	0.71 (67.62)	3.19 (226.24)	72.06 (104.36)	93.98 (66.93)	49.76 (71.09)	0.58 (85.29)	39.86 (81.33)	97

Sl. No.	District/ State	No. of Med. Centres per 10,000 Pop (1995-96)	No. of Centres Med. per 100 sq.km. Area (1995-96)	Railway Route Length per 100 sq.km. (1995-96)	Road Length per 10,000 Pop (1997)	Road Length per 100 sq.km. (1997)	% of Villages Electri-fied (1995-96)	No. of Banks per 10,000 Pop	Credit Deposit Ratio (1996-97)	CDI
1	2	11	12	13	14	15	16	17	18	19
6.	Nabarangpur	0.58 (113.73)	0.93 (88.57)	0	161.01 (233.18)	142.63 (101.58)	71.32 (101.89)	0.34 (50.00)	79.76 (162.74)	77
7.	Malkangiri	0.81 (158.82)	0.55 (52.38)	0	104.76 (151.72)	71.40 (50.85)	37.34 (54.06)	0.45 (66.18)	37.37 (76.25)	66
8.	Rayagada	0.67 (131.67)	0.63 (60.00)	2.73 (193.62)	88.59 (128.30)	83.44 (59.43)	36.97 (52.81)	0.66 (97.06)	43.05 (87.84)	102
	Orissa	0.51 (100.00)	1.05 (100.00)	1.41 (100.00)	69.05 (100.00)	140.41 (100.00)	70.00 (100.00)	0.68 (100.00)	49.01 (100.00)	100

N.B. : *(i) Figures in parentheses indicate the index value of the development Parameter.*
(ii) CDI refers to composite development index and NFS stands for Non-farm Sector.

Source : *(i) Government of Orissa, District Statistical Hand Book (Different years for different districts).*
(ii) Census of India, 1991.

Figures in Table-1 show the district-wise value of eighteen socio-economic indicators of the state. For assessing the living conditions of people composite index has been employed through Taxonomic method involving analysis of socio-economic conditions of people. The following indicators were used for probing into living conditions of people. (1) percentage of people living below poverty line, (2) literacy rate, (3) per capita foodgrains production, (4) yield rate of rice, (5) percentage of gross irrigated area to gross cropped area, (6) percentage of villages electrified, (7) work participation rate (8) percentage of industrial workers to main workers, (9) number of bank branches per lakh population, (10) percentage of urban population to total population, (11) percentage of main workers to total population, (12) number of bank branches per 100 Sq. Km. area, (13) number of medical institutions per 100 sq. Km. area, (14) number of medial centres per 10,000 population, (15) railway route per 100 Sq. Km. area, (16) railway route length per 1 lakh population, (17) total road length per Sq. Km. area, (18) per capita net value added by manufacture.

On the basis of the above indicators, composite index of standard of living has been estimated for each of the thirty districts. As per the composite index determined through Taxonomic method, the closer the value of the index to zero, the higher is the level of living standards of people and the closer the composite index to one, the lower is the level of living of people. It seems that, Koraput district is an average living standard district (where indices are between mean minus standard deviations and mean plus standard deviation).

ANALYSIS AND DISCUSSION

It is evident from the table that, the district has low literacy levels, poor health facility, inadequate spread of infrastructure like, railways, roads, banking services and rural electrification. In education sphere, the district has failed to make rapid strides and the literacy performance of the region is merely 36.20%, much below the state average of 63.61% in 2001. The availability of medical centres in sufficient quantity in a region may promote the health of people of the area. The industrially backward district has 0.54 medical centre per 10,000 populations and for 100 sq. km area there are 0.71 medical centre. By contrast, the state of Orissa has 0.51 medical centre for 10000 population and 1.51

medical centre for 100 sq. km area. There are reasons to believe that the development of roads in an area may accelerate agrarian and industrial development of the region by facilitating mobility of materials, manpower and goods from one region to another. The district has 72.06 km of roads for 10,000 population but the road length per 100 sq km is merely 93.06 km far below the state average of 140.41 km. In the educationally backward district electricity has reached 66.74% of villages and the performance has to catch up with the state average of 78.94%. It follows that, material deprivation; intellectual deprivation and social deprivation are most prominent in the tribal dominant district. What is deplorable is the less sanguine performance of the economy in irrigation frontiers, which reveals that, the percentage of gross irrigated area to gross cropped area in the region is lamentably low i.e. 29.84% (1998-99). It is no eighth wonder of the world that, the district has to be complacent with an yield rate of 15.31 quintals per hectare (state average 12.12 quintals per hectare) for rice.

The work force structure of the district reveals a higher work participation rate of 48.46% in the recent census far above the state average of 39.38%. Cultivation is the main source of sustenance for people of Koraput. As per the census of 2001, the percentages of cultivators and agriculture labourers in the district were 32.71% and 40.24% respectively. The proportion of other workers and workers in household industry in the region was recorded at 25.11 and 1.94% respectively. There is large scale material deprivation of people as manifested in the high incidence of poverty (71.40%) in the region. The lacklustre performance of the economy in growth rates of different sectors seems to be due to recurring natural calamities on the one hand and reluctance of millers and FCI to purchase paddy at prices fixed by Government on the other. Lack of productive wage employment and self-employment opportunities for workers on a perennial basis around the year is the main problem confronting workers in Koraput District.

POLICY PRESCRIPTIONS

It is difficult to say that, planners have adopted a revolution making approach to human development, though they have added new materials to the body of human development. Reference may be made to the recent improvement in the district that has been made in infrastructural

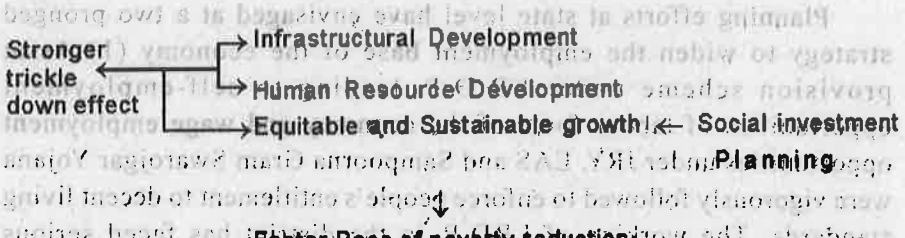
index by climbing to 10th rank in 2001 as against 12th rank in 1990-91, out of 13 districts of the state.

Planning efforts at state level have envisaged at a two pronged strategy to widen the employment base of the economy (1): Asset provision scheme under I.R.D.P. leading to self-employment opportunities of labour force of the economy and wage employment opportunities under JRY. EAS and Sampoorna Gram Swarojgar Yojana were vigorously followed to enforce people's entitlement to decent living standards. The working of I.RD.P. in the district has faced serious shortcomings like, want of marketing facility for dairy products under animal husbandry scheme, assistance to people with higher income and vanishing of assets of the beneficiary. Much glamour was accorded to J.R.Y. and E.A.S. but both the schemes along with I.R.D.P. have succeeded in providing wage employment to labourers for only 16.68 days per annum, below the target of creation of 90 to 100 days of employment in a year.. The average of poor families covered under the scheme is nearly 15.80%. So, initiatives may be taken to develop plantation, like coffee, horticulture, animal husbandry, bee keeping, Khandsari and Papad preparation to provide at least Rs. 6000/- per annum to poor households. Public action can enforce peoples' entitlements, provided, lands are distributed to the poor, organised marketing facilities are strengthened and farmers are motivated to cultivate drought tolerant crops like ragi, minor millets and pulses instead of placing reliance on paddy alone.

It seems that the abysmal poverty of farmers of the area is due to low net income accruing to farmers from cultivation of land. Several studies have shown that net income accruing to farmers from cultivation of an acre hardly comes to 1000 at 1987 prices. The minimum support prices fixed by the Government are not often enforced due to structural rigidities of the economy and often middlemen make rosy profits. Wherever possible farmers should sell paddy to F.C.I. and millers directly.

The scale of endeavour may be raised to expand economic opportunities for poor people by building up their assets and increasing the returns on these, to empower people by strengthening their participation in political process and decision making, to strengthen security by reducing people's vulnerability to natural disasters, setbacks to health, violence and crime.

A Schematic Framework of Desirable Development in Orissa's Context



CONCLUSION

Legislation is a wonderful thing, but in the absence of implementation there is nothing to commend it. The need of the hour is honest and humane administration, sensitive to people's needs to wipe out tears from their eyes.

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ABSTRACT

Human Resource Development in Orissa Needs Work Culture and Skill Formation

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Human Resources Development (HRD) is designed for improving the human performance by increasing the human capacity and productivity for ensuring a better quality of life to the individuals. Drawing knowledge from biological system and behavioral sciences, it lays stress more on qualitative improvement of individuals and thereby better performance of groups and organizations. It emphasizes the development of individuals to match them to the challenges faced by the individuals due to the changes in the technical, economic, social, political and psychological systems by equipping themselves with the requisite knowledge, skills, discipline and will. The concept of HRD covers three aspects such as Human, Resources and Development.

Human:-The Human concept studies him/her as an individual and also a member of a group that is family, enterprise, government etc.

Resource :- The achievement of individual towards optimum utilization of resources which can be categorized as animate and inanimate. Human beings become a resource capable of creating utilities, only when they acquire certain human capabilities like knowledge, skill, discipline, and will.

Knowledge :- It is an art, science, philosophy to know what to do, when to do, where to do, how to do.

Skills :- The skill may be human, managerial, conceptual, design, and creative, technical and communicative.

Development :- Development means progress and it is a continuous and cyclical process in which human agent is both the actor and benefactor and the means and actions.

Methods of HRD Development :

The human resources development can work in two different ways. 1. Self Development and 2. Organizational Development.

The development through organizational methods which are already in vogue in the industrial sphere include 1) Individual and group coaching, 2) Counselling, 3) Laboratory Training, 4) Career Planning, 5) Potential Appraisal, 6) Planned Progression, 7) Quality Circles, 8) Lecture Method, 9) Correspondence Method, 10) Programmed Learning, 11) Brain Storming, 12) Seminar Method, 13) Symposium Method, 14) Conference Method, 15) Panel Discussion Method, 16) Syndicate Method, 17) Assignment Method, 18) Workshop Method, 19) Field Demonstration Method, 20) Group Work Method, 21) Business Games Method, 22) Sensitivity Training, 23) Survey feedback Method, 24) Behaviour Modification, 25) Confrontation Method and 27) Role Playing Method

THE PROBLEM OF UNEMPLOYMENT IN ORISSA:

The entire working class can be divided in to skilled and unskilled. The educated youth of Orissa are included neither in skilled nor in unskilled category for which they fail to find any employment. It is due to the poor skill formation and lack of work culture.

The work culture and Caste system in ancient India :

The caste system in the past was capable of creating work culture and skill through hereditary learning process. Though at present such caste system could not be suggested but a new caste system in LPG environment may be suggested where there will be plumbers, carpenters, designers, hairdressers, blacksmith, fitter, welder, sheetmetalist, etc.

Bottle-feeding is useless :

Without creating work culture and without developing the skill bottle-feeding like Employment Guarantee Schemes will be useless.

Solutions :

The problem can be solved by developing skill in respect of Physical factors, Knowledge factors, Economic factors, Human factors, Social and Technological factors and Creative factors.

◆◆◆

ABSTRACT

Human Development in Orissa

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The main purpose of development is to enlarge peoples choice. This covers the objectives of creating a favourable environment for people to enjoy long, healthy and creative lives. The high incidence of poverty in India is an anti-thesis for sustainable human development. In the 21st century the new paradigm of human development should be systemized around the more than proportionate incremental investment strategy in favour of pro-poor programmes. A.P.J. Abdul Kalam, the President of India, rightly said that "while aggregated indicators are important, it does not make sense to achieve a 'developed status' without a major and continuing upliftment of all Indians who exist today and of many more millions who would be added in the years to come. They should all have a secure and enjoyable 'present' and also be in position to look forward for a better 'future' such a developed India is what we are looking for."

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    Soro, Balasore.

18. Dr. P.K. Raj
    Retd. Principal
    Mallikaspur,
    P.O./Dist : Balasore.

19. Sri Prafulla K. Das
Deptt. of Economics
Bhadrak College, Bhadrak.

20. Sri Ram Sankar Mishra
Deptt. of Economics
D.K. College, Jaleswar,
Dist : Balasore.

21. Sri Rama Chandra Bej
Deptt. of Economics
H.K. Mahatab College,
Kupari, Balasore.

22. Sri Sunil K. Rath
Deptt. of Economics
P.N. College, Bolgarh,
Dist : Khurda.

23. Sri S.K. Bhujabal
Deptt. of Economics
P.S. College, Khandapara,
Dist : Nayagarh.

24. Dr. Sarat C. Panigrahi
Deptt. of Economics
Nilagiri College
P.O.: Raj Nilgiri, Dist : Balasore.

25. Sri Sriram Mishra
Deptt. of Economics
Tara Tarini College,
Purushottampur,
Dist : Ganjam.

26. Sri Siba Prasad Pothal
Deptt. of Economics
Berhampur University,
Bhanja Vihar,
Berhampur,
Dist : Ganjam.

27. Sri Srigobinda Patra
Deptt. of Economics
Bhadrak College,
Bhadrak.

28. Sri Sashi Bhusan Kar
Deptt. of Economics
N.K. Mahavidyalay,
Bangara, Dist : Balasore.

29. Sri T.S. Jena
Deptt. of Economics
S.L. College,
At/P.O.: Uitikiri,
Dist : Balasore.

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LIST OF PRESIDENTS

Year	Host	Venue	President
1968	Ravenshaw College	Cuttack	Prof. Sadasiv Misra
1969	Dhenkanal College	Dhenkanal	Prof. Devendra Ch.Misra
1970	Khallikote College	Berhampur	Prof. Bidyadhar Mishra
1971	Utkal University	Vani Vihar	Prof. Baidyanath Misra
1972	Bhadrak College	Bhadrak	Dr. Chakradhar Mishra
1973	Panchayat College	Bargarh	Prof. R.C.Patnaik
1974	O.U.A.T.	Bhubaneswar	Prof. S.P. Gupta
1975	Kendrapara College	Kendrapara	Prof. H.K.Mishra
1976	S.C.S. College	Puri	Prof. Devendra Ch. Misra
1977	Nimapada College	Konark	Dr. S. Tripathy
1978	Berhampur University	Bhaja Vihar	Prof. Nilakanth Rath
1979	Utkal University	Vani Vihar	Prof. K.Kanugo
1980	G.M. College	Sambalpur	Prof. Pravat Ku.Patnaik
1981	O.U.A.T.	Bhubaneswar	Prof. Dayanidhi Mohapatra
1982	Municipal College	Rourkela	Prof. Bibekanada Das
1983	Ravenshaw College	Cuttack	Prof. Ghanshyam Das
1984	Berhampur University	Bhanja Vihar	Prof. Basudev Sahoo
1985	Vikram Deb College	Jeypore	Prof. Santan Mohanty
1986	Banki College	Banki	Prof. B.C.Parida
1987	Kendrapara College	Kendrapara	Prof. Benudhar Bhuyan
1988	S.C.S. College	Puri	Prof. Gyana Chandra Kar
1989	M.P.C.College	Baripada	Prof. N.P. Patro
1990	Not Held	–	–
1991	Utkal University	Vani Vihar	Prof. Khetra Mohan Patnaik
1992	Sambalpur University	Jyoti Vihar	Prof. Trilochan Satpathy
1993	Ravenshaw College	Cuttack	Prof. Surendra Nath Mishra
1994	B.B.Mahavidyalay	Chandikhol	Prof. Adwait Ku. Mohanty
1995	P.N.College	Khurda	Prof. Benudhar Mishra
1996	Paradip College	Paradip	Prof. Gajendra Nath Das
1997	Municipal College	Rourkela	Prof. Jyoti Prakash Patnaik
1998	Govt. Women's College	Keonjhar	Prof. Ajit Ku. Mitra
1999	Talcher College	Talcher	Prof. Binayak Rath
2000	Govt. Women's College	Sambalpur	Prof. Satya P.Das
2001	D.A.V.College	Koraput	Prof. Kumar B.Das
2002	Bhadrak College	Bhadrak	Prof. Bhabani P.Dash
2003	S.V.M. College	Jagatsinghpur	Prof. R.P.Sarma
2004	NCDS	Bhubaneswar	Prof. S.N.Mishra
2005	Christ College	Cuttack	Prof. N.B. Pradhan
2006	F.M. College	Balasore	Prof. R.M. Mallick
2007	U.N.S. College	Mugapal	Prof. Bedabati Mohanty